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SP07032

**Work distribution & production tracking
system**

By

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Under the Supervision of

Mr. Pardeep Kumar



**Submitted in partial fulfillment
Of the degree of
Bachelor of Technology
Department of CSE & / IT**

**JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
WAGNAGHAT
SOLAN, HIMACHAL PRADESH
INDIA**

CERTIFICATE

This is to certify that the work entitled **work distribution & production tracking system** submitted by Sharad Rai and Abhishek Ghartan in partial fulfillment for award of degree of Bachelor of Technology (Computer Science & Engineering) of Jaypee University of Information Technology has been carried out under my supervision.

This work has not been submitted partially or wholly to any other university or institution for award of this or any other degree programme.

Signature of Supervisor

.....Pardeep Kumar.....

Name of Supervisor

.....PARDEEP KUMAR.....

Department

.....CSE & I.T.....

Date

.....23-05-2011.....



ACKNOWLEDGMENT

We take this opportunity to express our profound sense of gratitude and respect to all those who helped us throughout the duration of our project.

This report acknowledges the intense driving and technical competence of all the individuals who have contributed to it. It would have been almost impossible to produce fruitful results during the working of the project without the support of those people. We extend our thanks and gratitude to our Project Guide Mr. Pardeep kumar who has helped us at every step. He spent his valuable time from his busy schedule to train us and provided his active and sincere support for our daily activities.

I would like to express my heartfelt thanks to Brig. (Mr.) S.P.Ghrera, H.O.D., Computer Science Department, Jaypee University of Information Technology, for his astute guidance, his constant encouragement and support throughout.

This report has been compiled by the sincere and active support from our guide who provided us proper guidance and direction regarding various problems. We have tried our best to summarize this report.

SIGNATURE		
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DATE	<u>23-05-2011</u>	<u>23-05-2011</u>
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Chapter 1

Introduction and Background

Project topic is chosen while surfing through the internet and searching for the ideas over the software project guidelines. We came across many few software based on BPO process management systems those gave us a thought to develop such a system which could be helpful a BPO process to be more efficient and fast. The system which can control and maintain records of the workflow for large teams operating in the process which otherwise is difficult and extra resource consuming process. After discussing all the aspects of the topic with the project team members we came to the conclusion to generate such a system. We approached a VITE (BPO) which had such requirement on being discussed and gave us permission to meet and discuss with concerned people to guide us through the current working system and possible areas of improvement.

Understanding the workflow system of the BPO industry could be possible only after getting involved fully or partially in the real time working of a process, at different levels of the production cycle. Understanding the technical aspects of the data flow at different level of the process could be possible by conducting a meeting with team members of different levels together so as to get maximum knowledge of the process. Brief study of BPO process based on existing manual work flow system, data reports and discussions with employees at different level of the process was the source of knowledge for analyzing the existing process system.

Objective of this application is to generate a system where maintaining records will be efficient and easier, report generation will be easier and faster. Thus overall performance of all the resources will increase drastically and hence more work can be accomplished with maximum utilization of resources. As presently work creation and allocation is done manually by the senior managers on the paper formats or verbally and circulated at lower level managers and so on to the lowest level of employees, it is difficult, time consuming and need extra resources to maintain records at different levels of the process. This is not just the end, when it comes to work status, production reports and performance evaluation reports. It becomes more difficult to gather related data from the N number of paper source data to generate a particular report. This process will consume lesser man power and lesser time where utilization of the resources will increase drastically when this proposed system will be introduced successfully in the production process in real time. Maintaining records will be efficient and easier, report generation will be easier and faster. Thus overall performance of all the resources will increase drastically and hence more work can be accomplished maximum utilization of resources.

Work Distribution & Production Tracking System for BPO will play a vital role in the life cycle of a BPO process. All the employees are registered in the system by the Human Resources department according to their department and designations. A login Id and password is assigned to all the registered employees at the time of registration. System will automatically assign rights to all the registered users according to their level in the company. Every employee can login to the system with their respective login id and password. Login date and time record will also be maintained by system.

It will enable production managers for different departments to create and allocate work online through this software system to their respective teams towards the lower level hierarchy. So on lower level managers then Team leaders and then senior process associates can further allocate work to their juniors in the same team at the lowest level. The work will be created and allocated on the oracle server installed on a system on the network. As soon as any team member will login to this system with the designate login and password, he/she will view all the work assigned to them for the day by their immediate senior, in the first screen. After processing the work assigned all the team members are supposed to update the latest status of their work in the system against the specific work at the end of the day with comments and issues if any. All the levels of the process of a department will be equally aware of the latest status of the work, thus it will save time and resources at all level of the process. Different reports related to evaluation of work status and user performance would be generated from the system according to user rights, those can be saved / used for further management level work and decisions. Attendance record will also be maintained under this system, thus attendance reports will also be helpful in evaluating employee attendance record for HR purpose.

Hardware & Software to be used

Hardware	Intel Pentium III Processor ,Dual 2Core, 256 Ram, 40GB Disc, LAN Card, etc
Windows	Win 2003 Server Professional
Application Software	VB 6
Database	Oracle 9i Server, Client

Manual testing will be performed by providing dummy data provided by the BPO, to test the successful working of the application in all respects on a networked system.

Chapter 1.1

User Profiles

The following user types are expected for the “Work Distribution & Production Tracking System”:

User	Brief Description of Use Actions
IT Administrator	Installation Download and upload of the software system with all the rights to work on this application.
HR Manager	All rights to add and edit information related to employees under different process of BPO.
Process Manager	Maximum rights other than HR rights are allocated to this level. Process related rights are assigned to access teams work performance and latest work status. Generating different production related reports for all the levels. Online work assignment to the team members.
Team Leader	Maximum rights other than HR rights are allocated to this level. Process related rights are assigned to access teams work performance and latest work status. Online work assignment to the team members. Generating different production related reports only for the executive levels.
Executives	Work on the assignments which have been assigned to them. Updating the final status of the work at the end of the day/completion of the work. Updating time consumed to finish the work and also updating problem log for the work.

Company Profile

VITE is a BPO concern operating in different process of bpo with 20 employees working in it. It's based at Chandigarh, PB for last one year. It has different clients and different processes from US and UK. Medical Billing and Litigation process are the major processes in the company.

Requirements Analysis

Understanding the workflow system of the BPO industry could be possible only after getting involved fully or partially in the real time working of a process, at different levels of the production cycle. Understanding the technical aspects of the data flow at different level of the process could be possible by conducting a

meeting with team members of different levels together so as to get maximum knowledge of the process. Brief study of BPO process based on existing manual work flow system, data reports and discussions with employees at different level of the process was the source of knowledge for analyzing the existing process system.

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It will enable production managers for different departments to create and allocate work online through this software system to their respective teams towards the lower level hierarchy. So on lower level managers then Team leaders and then senior process associates can further allocate work to their juniors in the same team at the lowest level. The work will be created and allocated on the oracle server installed on a system on the network. As soon as any team member will login to this system with the designate login and password, he/she will view all the work assigned to them for the day by their immediate senior, in the first screen. After processing the work assigned all the team members are supposed to update the latest status of their work in the system against the specific work at the end of the day with comments and issues if any. All the levels of the process of a department will be equally aware of the latest status of the work, thus it will save time and resources at all level of the process. Different reports related to evaluation of work status and user performance would be generated from the system according to user rights, those can be saved / used for further management

level work and decisions. Attendance record will also be maintained under this system, thus attendance reports will also be helpful in evaluating employee attendance record for HR purpose.

Chapter 1.2

Software and Hardware Platform

Application Requirements (Important) For Programmer Only

For “Work Distribution & Production Tracking System” application to run we need --

1. **Windows 2000 / 2003 server:** Oracle Server 9i should be Installed only where the Operating System is Windows 2000 / 2003 server.
2. **Oracle 9i server** to be installed on server node where the database will be stored. While installing Oracle 9i server please follow the following select options: Database Administrator for installation, please supply these values during the installation **user name** – system, **password** – mayflegal, **SID** - bposid (this is global database / service name) to be given during the installation).
(Note: Oracle names its database as **SID_IP** Ex. **bposid_192.168.2.61** where the Oracle server is Installed)
3. **Oracle 9i client** (option: **Runtime**) need to be installed on client/user node where the application will be run.
SID for **Service Name** same as given while oracle server installation (ex. bposid)
IP for **Host name** same as given while oracle server installation (ex. 192.168.2.61)

Application Requirements (Important) For End Users

1. User wanting to work on “Work Distribution & Production Tracking System” Application need to be on LAN (Local Area Network) IP's otherwise Application will fail to run.
2. IP's of the Oracle server Machine should not be changed other wise “Work Distribution & Production Tracking System” Application will not work on any client linked to it.
3. Client Station/Machine wanting to work on “Work Distribution & Production Tracking System” Application need to be on LAN (Local Area Network) IP's Other wise client will be unable to connect with Oracle Database at Oracle Server Machine on the LAN.

Different levels in this application. These are as follows:-

Designation	Level
HR	Level 1
Manager	Level 2
TL/SPA	Level 3
PA	Level 4

Chapter 2

Database Design

Tables Used in the application

DAILY_WORK	TABLE
DEPARTMENTS	TABLE
DESIGNATIONS	TABLE
EMPS	TABLE
HEADS	TABLE
TASKS	TABLE
USER_DATA	TABLE
WRK_ASSIGN	TABLE

Structures of tables

DAILY_WORK

Name	Null?	Type
PKEY		NOT NULL NUMBER
EMPKEY		NUMBER
WRK_PKEY		NUMBER
DESCRIPTION		VARCHAR2(100)
DW_DATE		DATE
STIME_HRS		VARCHAR2(2)
STIME_MIN		VARCHAR2(2)
FTIME_HRS		VARCHAR2(2)
FTIME_MIN		VARCHAR2(2)
WRK_HRS		VARCHAR2(2)
WRK_MIN		VARCHAR2(2)

DEPARTMENTS

Name	Null?	Type
PKEY		NOT NULL NUMBER
HKEY		NUMBER
DNAME		VARCHAR2(50)

DESIGNATIONS

Name	Null?	Type
PKEY		NOT NULL NUMBER
DESIG		VARCHAR2(80)

Emps

Name	Null?	Type
PKEY		NOT NULL NUMBER
EMPID		VARCHAR2(10)
ENAME		VARCHAR2(30)
HKEY		NUMBER
DEPTKEY		NUMBER
DESIGKEY		NUMBER
EMPLEVEL		VARCHAR2(8)
PASSWORD		VARCHAR2(10)
STATUS		VARCHAR2(3)
DOJ		DATE

Heads

Name	Null?	Type
PKEY		NOT NULL NUMBER
HEAD		VARCHAR2(50)

Tasks

Name	Null?	Type
PKEY		NOT NULL NUMBER
HKEY		NUMBER
DEPTKEY		NUMBER
DESIGKEY		NUMBER
TASK		VARCHAR2(50)
VOLUME		NUMBER
PTIME_HRS		VARCHAR2(2)
PTIME_MIN		VARCHAR2(2)
SPCL_TASK		VARCHAR2(1)

User_Data

Name	Null?	Type
PKEY		NUMBER
USERID		VARCHAR2(10)
WDAY		VARCHAR2(4)
LOG_DATE		DATE
LOGIN_TIME		VARCHAR2(15)
LOGOUT_TIME		VARCHAR2(15)

Wrk_Assign

Name	Null?	Type
PKEY		NOT NULL NUMBER
EMPKEY		NUMBER
TASKKEY		NUMBER
ASSIGN_DATE		VARCHAR2(12)
ASSIGN_TIME		VARCHAR2(12)
FINISH_DATE		VARCHAR2(12)
FINISH_TIME		VARCHAR2(12)
W_STATUS		VARCHAR2(12)
REMARKS		VARCHAR2(100)

Database Table creation Queries

```
create table heads(pkey number,head varchar2(50),constraint c1 primary
key(pkey))
```

```
create table departments(pkey number,hkey number,dname
varchar2(50),constraint c2 primary key(pkey),constraint f1 foreign key(hkey)
references heads(pkey))
```

```
create table designations(pkey number,desig varchar2(80),constraint c3 primary
key(pkey))
```

```
create table tasks (pkey number,hkey number,deptkey number,desigkey
number,task varchar2(50),volume number,ptime_hrs varchar2(2),ptime_min
varchar2(2),spcl_task varchar2(1),constraint c4 primary key(pkey),constraint f2
foreign key(hkey) references heads(pkey),constraint f3 foreign key(deptkey)
references departments(pkey),constraint f4 foreign key(desigkey) references
designations(pkey))
```

```
create table emps(pkey number,empid varchar2(10),ename varchar2(30),hkey
number,deptkey number,desigkey number,emplevel varchar2(8),password
varchar2(10),status varchar2(3),doj date,constraint c5 primary
key(pkey),constraint f5 foreign key(hkey) references heads(pkey),constraint f6
foreign key(deptkey) references departments(pkey),constraint f7 foreign
key(desigkey) references designations(pkey))
```

```
create table wrk_assign (pkey number,empkey number,taskkey
number,assign_date varchar2(12),assign_time varchar2(12),finish_date
varchar2(12),finish_time varchar2(12),w_status varchar2(12),remarks
varchar2(100),constraint c6 primary key(pkey),constraint f8 foreign key(empkey)
references emps(pkey),constraint f9 foreign key(taskkey) references tasks(pkey))
```

```
create table daily_work (pkey number,empkey number,wrk_pkey
number,description varchar2(100),dw_date date,stime_hrs varchar2(2),stime_min
varchar2(2),ftime_hrs varchar2(2),ftime_min varchar2(2),wrk_hrs
varchar2(2),wrk_min varchar2(2),constraint c7 primary key(pkey),constraint f10
foreign key(empkey) references emps(pkey),constraint f11 foreign
key(wrk_pkey) references wrk_assign(pkey))
```

```
create table user_data (pkey number,userid varchar2(10),wday
varchar2(4),log_date date,login_time varchar2(15),logout_time varchar2(15))
```


Chapter 2.1

Verification and Software Testing / “Work Distribution & Production Tracking System” Test Plan

This document describes the user acceptance test plan for the “Work Distribution & Production Tracking System” System. The complete test strategy for the “Work Distribution & Production Tracking System” is to perform the following kinds of tests, in sequence:

1. **Component testing** of each component that makes up the “Work Distribution & Production Tracking System”
2. **Integration testing** of the “Work Distribution & Production Tracking System”, to ensure the correct inter working of its components
3. **Validation testing** of the “Work Distribution & Production Tracking System”, to ensure that it works correctly in a pseudo-live environment
4. **User acceptance testing** of the “Work Distribution & Production Tracking System”, to ensure that its function is acceptable to its users

Acceptance testing is the last set of tests to be performed before the application goes officially live.

Test Scope

The scope of the user acceptance testing covers:

- Version 1 of the “Work Distribution & Production Tracking System”
- User-facing functionality defined by a set of use cases
- Administrator-facing functionality defined by a set of use cases

The aim of the testing is to determine how well the application meets its functional requirements from the perspective of the user, and to identify any issues so they can be resolved. Also, the testing serves to compile a set of test data and results that can be used during subsequent test cycles, to test for non-regression of the software in later releases or after the application is in maintenance.

Working practices might vary from user to user and are considered outside the scope of the testing.

Test Strategy

The basis of user acceptance testing is that other tests were completed successfully, so the application and its required infrastructure are considered to be stable and reliable. Acceptance testing concentrates on the application from the user's perspective, that is, how the application is used and whether it meets the necessary quality criteria.

Change requests will be sent to the development team as the actionable documentation. Change criteria will be determined by the Test team and the Development team prior to the beginning of testing. For instance, criteria may include *impact to desired functionality*, *amount of code impacted by proposed change*, and *design required by proposed change*. The tester will evaluate the criteria. The test lead will determine Change Required or not. Once a bug has been determined as Change Required, the bug report will be translated into a Change Request and passed on to development.

The customer of the acceptance testing is the System Users, Supervisor and Administrator for "Work Distribution & Production Tracking System". The progress of the acceptance testing will be reported to the customer, together with any issues that are discovered and their planned resolutions. Sign-off of the tests, and therefore the acceptance of the application, will be performed by the customer or a selected representative.

Preconditions

The following items are required before testing can take place:

- A complete and coherent functional specification of the "Work Distribution & Production Tracking System" expressed as use cases and usage scenarios
- A complete and validation-tested release of "Work Distribution & Production Tracking System", delivered according to the delivery plan
- An agreed-upon procedure for dealing with any anomalies that are discovered during the testing process
- A set of test specifications describing how each functional area of the "Work Distribution & Production Tracking System" is to be acceptance tested
- An implemented test environment for the testing
- Sufficient, suitable resources to carry out the testing
- Available standards for the acceptance testing

Test Priorities

During testing of the "Work Distribution & Production Tracking System", the following qualities will be tested in order of priority:

- **Functionality**—whether the required functions are available and working as expected
- **Usability**—how user-friendly and intuitive the “Work Distribution & Production Tracking System” is
- **Security**—how well-protected and guaranteed corporate and user data is
- **Performance**—whether the response times are within acceptable limits
- **Customization**—how straightforward it is to use the application in new, unpredicted ways

Test Techniques

The following techniques will be applied:

- **Scripted tests**—sequences of user interactions (based on the use case and usage scenarios) using predefined data sets against predicted results
- **Unscripted tests**—based on scripted tests, the tester tries to modify the scenarios to explore what-if possibilities
- **Penetration tests**—scripted tests to attempt unauthorized entry into the system
- **Usability checklists**—tests to determine the complexity of interactions
- **Performance statistics**—generation of performance information to check against desired performance criteria

Test Organization

Roles and Responsibilities

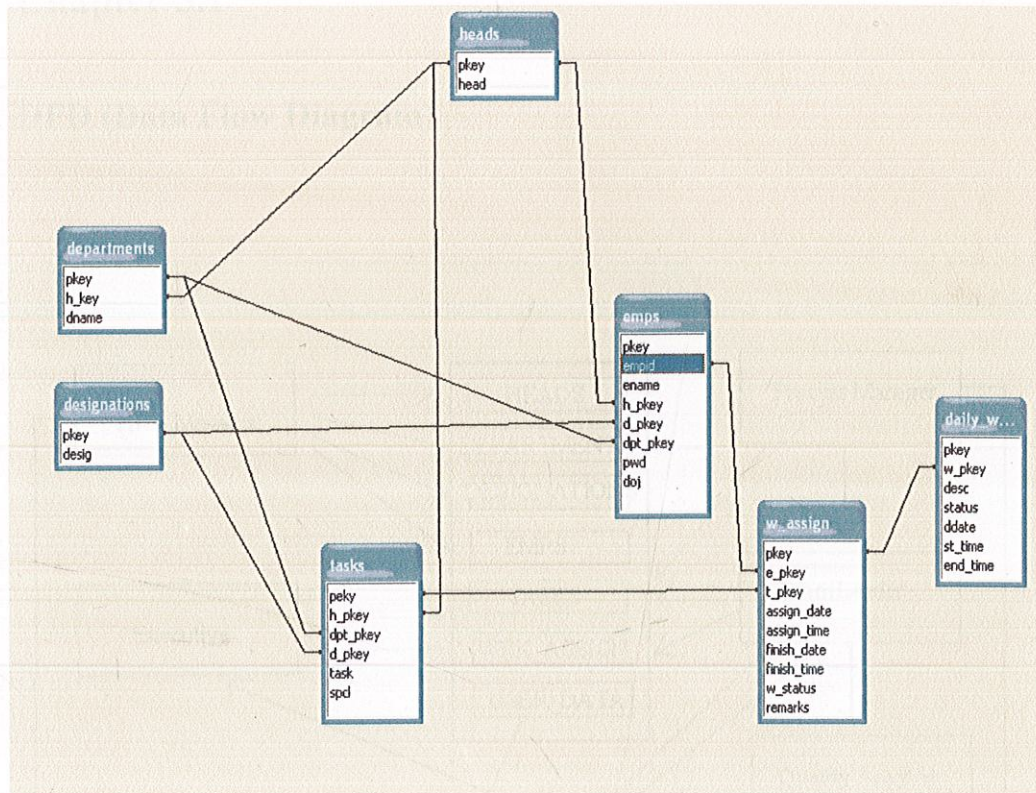
The following roles are defined:

- **QA lead/test manager**—responsible for planning and ensuring the smooth running of the test process
- **Tester**—carries out the tests according to the test plan, and then reports the results
- **Product manager**—ensures that the tests are carried out successfully from a user perspective
- **Project sponsor/client**—acts as main stakeholder, and ensures that the needs of the customer community as a whole are considered
- **Test support**—provides technical assistance, such as test environment configuration, and non-technical assistance, such as methodological support

Weekly team meetings will be held involving the test manager, testers, and product managers. At these meetings, the progress of the testing process will be reported, any issues will be discussed, and actions will be agreed upon.

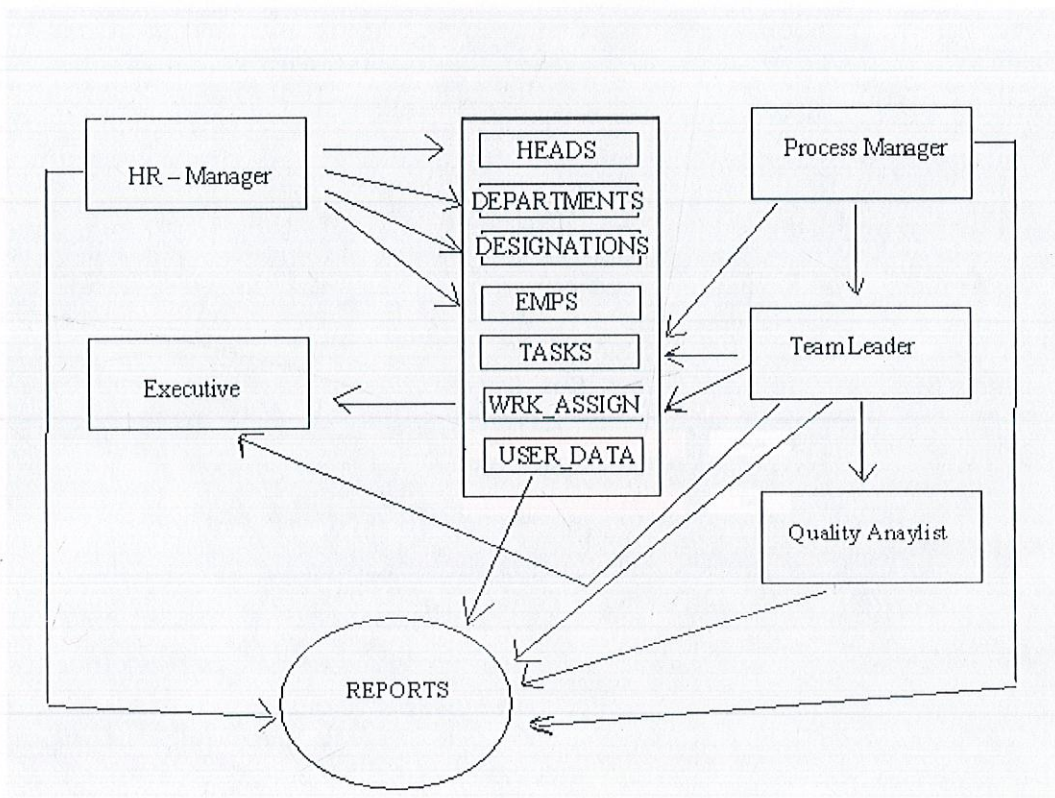
Chapter 3

ER Diagram



Chapter 3.1

DFD (Data Flow Diagram)

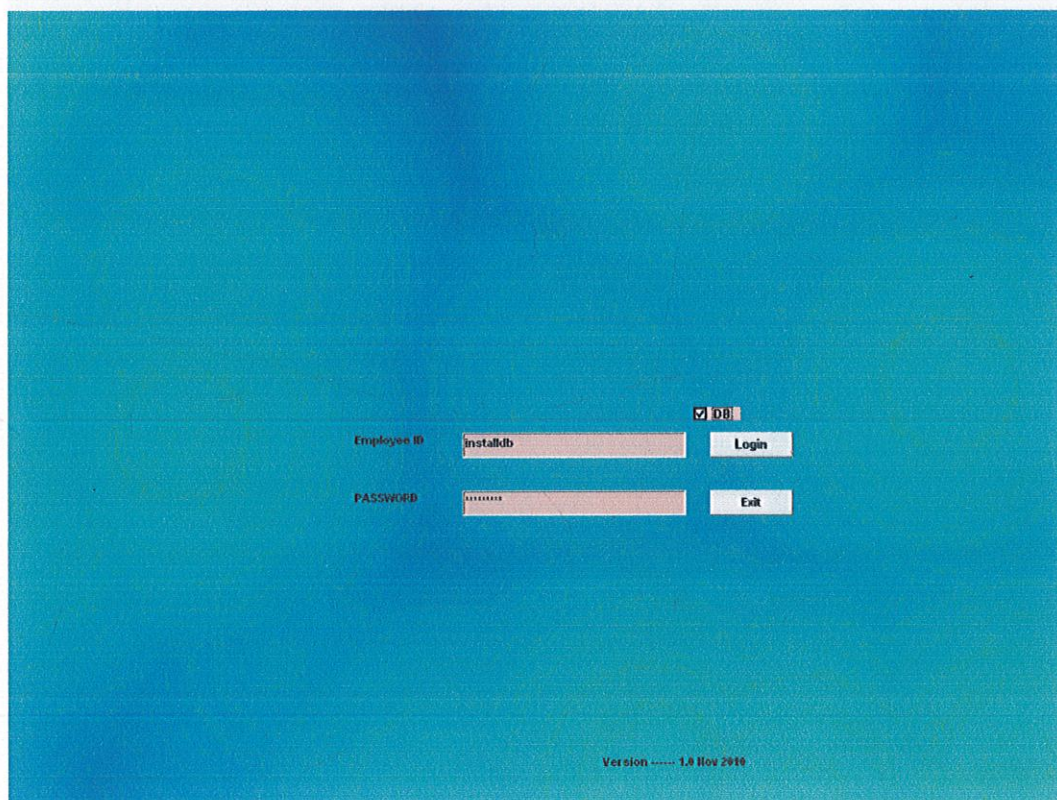


Chapter 4

Form Designs and Work Flow System

Admin Login Form

This is the login screen when you first intend to install Database.



A screenshot of an Admin Login Form with a blue gradient background. The form contains the following elements:

- Employee ID:** A label followed by a text input field containing the text "installdb".
- PASSWORD:** A label followed by a text input field containing a series of asterisks "*****".
- DB:** A checkbox labeled "DB" which is checked, located to the right of the Employee ID input field.
- Login:** A button located to the right of the Employee ID input field.
- Exit:** A button located to the right of the PASSWORD input field.
- Version:** A small text label at the bottom right corner that reads "Version ----- 1.0 Nov 2010".

On successful login administrator has to fill certain input fields related to database access so as to install the database dynamically.

The image shows a screenshot of a software interface titled "CONNECT TO DATABASE - ID / PASSWORD / HOST STRING". The interface is set against a dark blue background. It contains several input fields with labels to their left:

- Database Admin User ID:** The input field contains the text "system".
- Database Admin Password:** The input field contains the text "maylegal".
- Database Name / Host String:** The input field contains the text "bpoid".
- Create User Space in DB:** The input field contains the text "production".
- User Space Password:** The input field contains the text "production".

Below these fields, the text "NOT CONNECTED" is displayed. At the bottom of the dialog box, there are two buttons: "Connect Oracle 9i" and "Exit".

At the bottom right of the entire screenshot, the text "Version ----- 1.0 Nov 2010" is visible.

Admin Login Once the database is installed super admin can login with the password so as to register the employees in the system with specific information required by the application.

Once the users has been registered by the HR manager which can be a super admin as well when for the first time the fresh database is installed, registered user, can login with their respective user-id and password assigned by the HR at the time of registering the employee in the Work Distribution & Production Tracking System.

Employee ID: admin

PASSWORD: ***

ADM

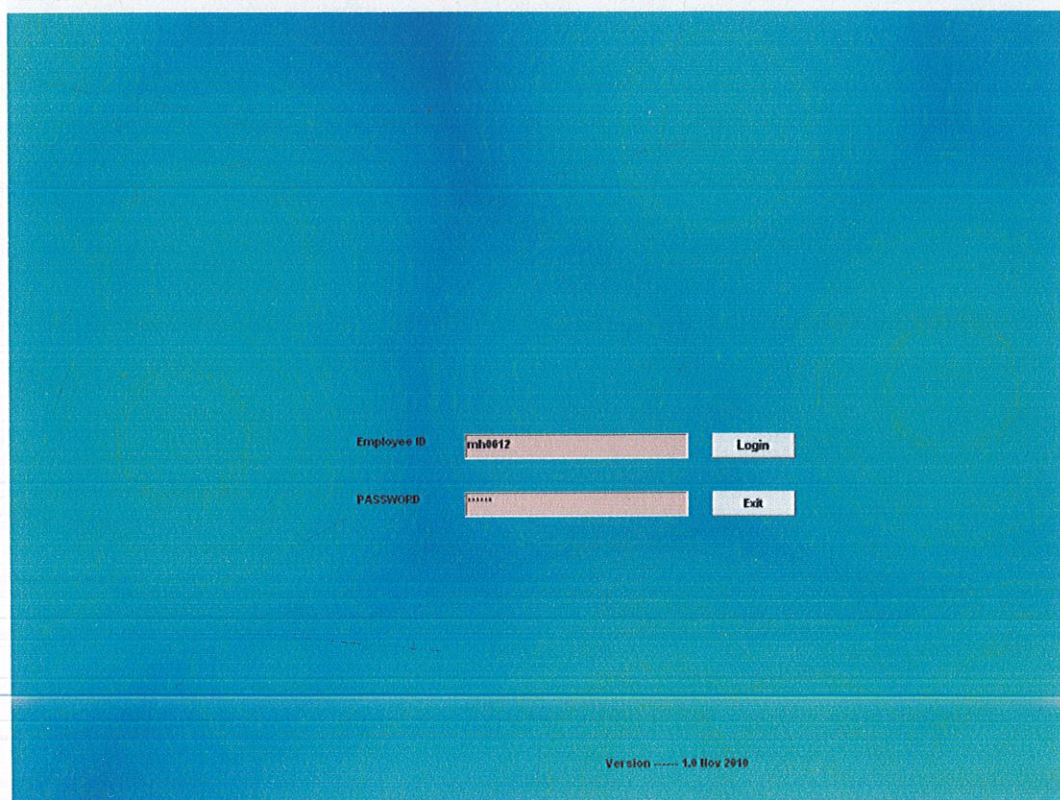
Login

Exit

Version ----- 1.0 Nov 2019

User Login Form

Once the users has been registered by the HR manager which can be a super admin as well when for the first time the fresh database is installed, registered users can login with their respective user-id and password assigned by the HR at the time of registering the employee in the “Work Distribution & Production Tracking System”.



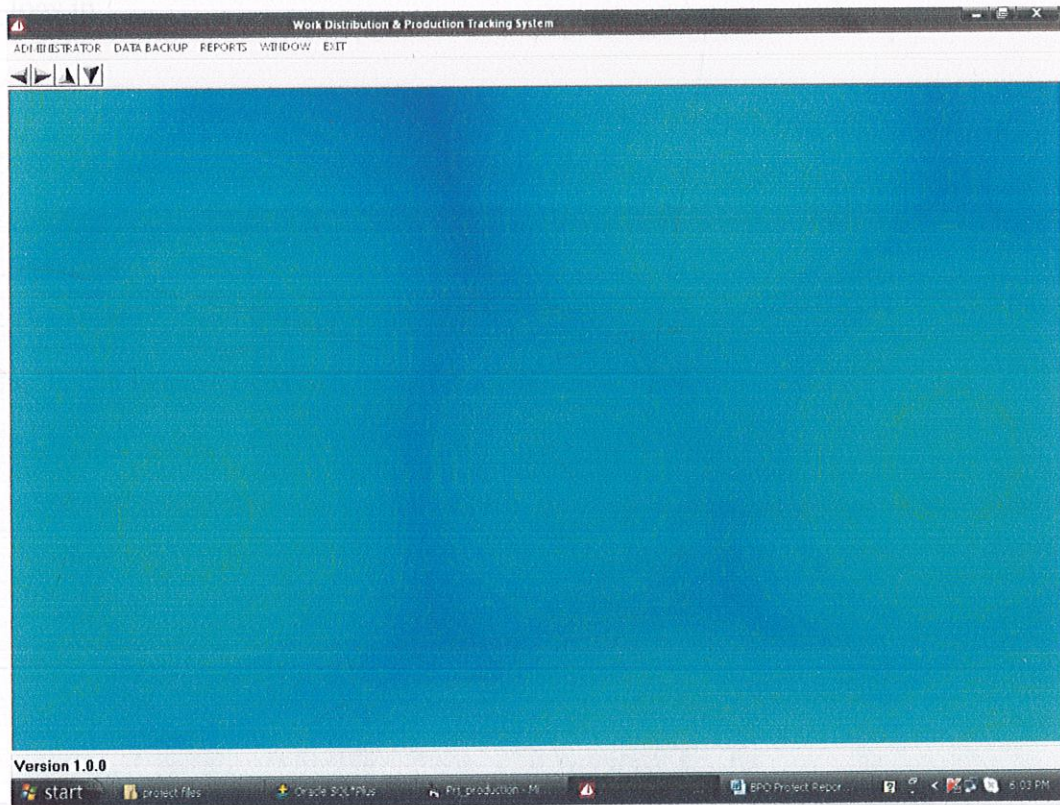
The screenshot displays a user login interface with a teal background. It features two input fields: "Employee ID" with the value "mah0012" and "PASSWORD" with masked characters. To the right of each field is a button labeled "Login" and "Exit" respectively. At the bottom right, the text "Version ----- 1.0 Nov 2019" is visible.

Employee ID	<input type="text" value="mah0012"/>	<input type="button" value="Login"/>
PASSWORD	<input type="password" value="*****"/>	<input type="button" value="Exit"/>

Version ----- 1.0 Nov 2019

Multiple Document Interface (MDI Form)

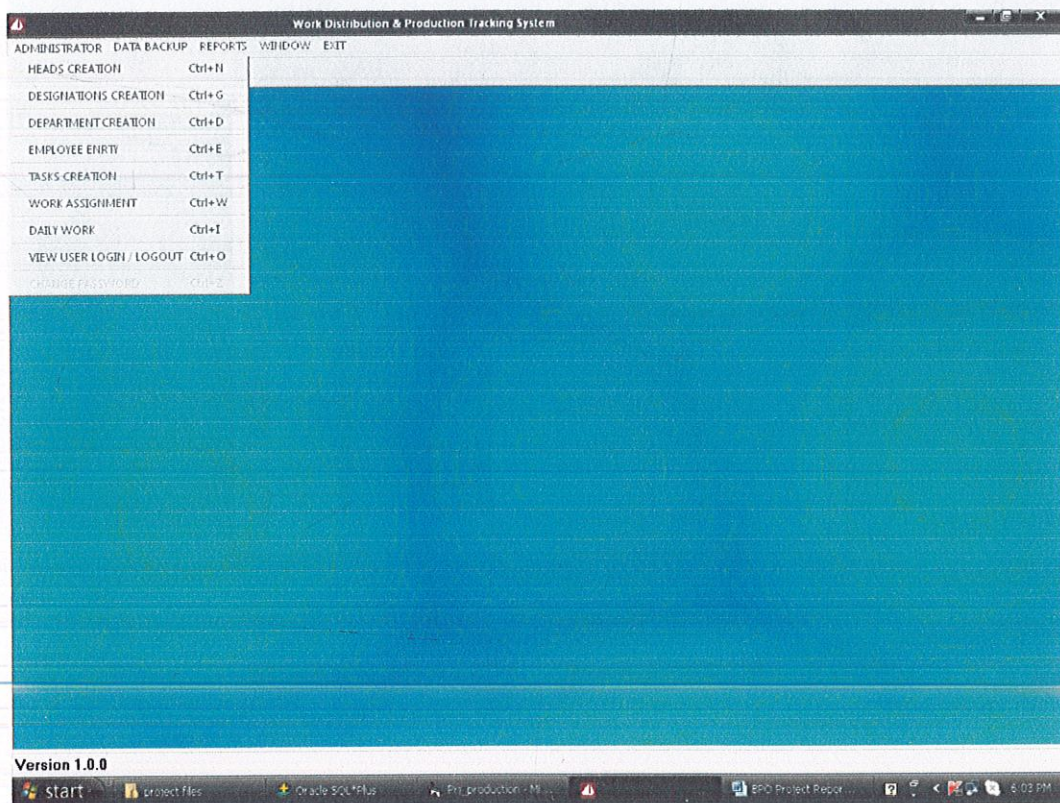
The first screen which user land in after successful login in to the “Work Distribution & Production Tracking System”.



Chapter 4.1

Menu on MDI Form

Different options to navigate to different user interfaces from the menus can be seen in first menu Item. Users will be able to navigate to forms only according to their designation and assigned rights. The menu items will be enabled or disabled according to user rights which is verified at the time of login of every user who logs in.



Chapter 4.2

Head Form

Head form enables us to register different heads in the company each with auto generated unique id. We can perform add, edit and delete function on this form. At the same time we can view all the registered heads in the data grid.

The screenshot shows a Windows application titled "Work Distribution & Production Tracking System". The main window has a menu bar with "ADMINISTRATOR", "DATA BACKUP", "REPORTS", "WINDOW", and "EXIT". Below the menu bar is a toolbar with navigation icons. The central area is a large blue rectangle. Overlaid on this is a smaller window titled "Heads Entry Form".

The "Heads Entry Form" window has a title bar with the date "10-11-2010", the title "Heads Creation Entry Form", and the time "6:04:16 PM". It contains the following elements:

- Existing Head:** A dropdown menu.
- Record No:** A text field containing "1".
- Head:** A text field containing "HEALTHCARE".
- Buttons:** A row of buttons labeled "ADD NEW", "EDIT", "SAVE", "CANCEL", "DELETE", and "CLOSE".
- Data Grid:** A table with two columns: "PKEY" and "HEAD".

PKEY	HEAD
1	HEALTHCARE
2	LITIGATION
3	HR
4	IT
5	DIRECTOR
6	DATA MANA
7	BUSINESS I
8	ACCOUNTS

At the bottom of the application window, there is a status bar that says "Version 1.0.0". The Windows taskbar at the very bottom shows the "start" button and several open applications, including "Production Plan", "Heads Entry Form", "Production Tracking", and "EPO Protect Repor...". The system clock shows "5:04 PM".

Chapter 4.3

Department Form

Departments form enables us to register different departments under a particular head in the company. We can perform add, edit and delete function on this form. At the same time we can view all registered departments name with the Head Key under which it falls in the data grid.

PKEY	HKEY	DNAME
1	1	PAYMENTS
2	1	CHARGES
3	1	AR
4	2	CODING & C
5	2	TRAINING
6	3	HR
7	4	NETWORKII
8	4	SOFTWARE
9	5	DIRECTOR

Chapter 4.4

Designation Form

Designations form enables us to register different designations in the company. We can perform add, edit and delete function on this form. At the same time we can view all registered designations list in the data grid.

Work Distribution & Production Tracking System

ADMINISTRATOR DATA BACKUP REPORTS WINDOW EXIT

Designations Entry Form

10-11-2010 Designations Creation Entry Form 6:05:03 PM

Existing Designation

Record No 1

Designation DIRECTOR

ADD NEW EDIT SAVE CANCEL DELETE CLOSE

PKEY	DESIG
1	DIRECTOR
2	MANAGER F
3	TEAM LEAD
4	SPA
5	PA
6	MANAGER E
7	ASSISTANT
8	MANAGER I
9	MANAGER H
10	ACCOUNTANTS

Version 1.0.0

start project files Oracle SQL*Plus Fri production - M... BPO Project Repor... 6:05 PM

Chapter 4.5

Employee Form

Employee form enables us to register employees of the company with all the other necessary details about the employee. We can perform add, edit and delete function on this form. At the same time we can view details of all registered employees in the data grid. Login id and password is also assigned here to every employee while registering them in the system.

Work Distribution & Production Tracking System

ADMINISTRATOR DATA BACKUP REPORTS WINDOW EDIT

Employee's Form

10-11-2010 Employee Creation Entry Form 6:05:22 PM

Existing Employees: [Dropdown]

Record No: 1

Emp ID: MH0004 Head: HR

Employee Name: Aditi Jain Department: HR

Employee Level: Level 1 Designation: MANAGER HR

Password: * Date of Joining: 11/10/2010

ReType Password: * Login Status: Off

ADD NEW EDIT SAVE CANCEL DELETE CLOSE

PKEY	EMPID	ENAME	HKEY	DEPTKEY	DESIGKEY	EMI
1	MH0004	Aditi Jain	3	6	9	Lev
2	MH0005	Maya Mohar	7	12	6	Lev
3	MH0006	Sanjay K C	1	13	12	Lev
4	MH0011	Karnesh Sh	4	7	8	Lev
5	MH0012	Vishav Man	1	1	4	Lev
6	MH0009	Mukesh Kur	1	2	4	Lev
7	MH0008	Anuj Sharm	1	3	5	Lev
8	MH0018	Raman Sha	1	3	14	Lev

Version 1.0.0

start project files Oracle SQL*Plus P:\production\ M... BPO Project Recor... 6:05 PM

Chapter 4.6

Task Form

Task creation form enables us to define the task. A task is defined for a particular designation of a particular department under a particular head. We can add a task by selecting from the options in the different dropdowns downwards. We can perform add, edit and delete function on this form. At the same time we can view details of all tasks those has been created, in the data grid.

The screenshot shows a software window titled 'Work Distribution & Production Tracking System' with a menu bar (ADMINISTRATOR, DATA BACKUP, REPORTS, WINDOW, EDIT) and a toolbar. Inside, a 'Tasks Entry Form' is displayed, dated 10-11-2010 and 6:08:47 PM. The form is titled 'Tasks Creation Entry Form' and contains the following fields and controls:

- Existing Task:** A dropdown menu.
- Select Head:** A dropdown menu with 'HEALTHCARE' selected.
- Select Department:** A dropdown menu with 'PAYMENTS' selected.
- Select Designation:** A dropdown menu with 'SPA' selected.
- Task Head:** A text field containing 'process 10000 - 20000 images'.
- Special Assignment:** An unchecked checkbox.
- Proposed Time:** Two dropdown menus for 'Proposed Hrs' (05) and 'Proposed Min' (02).
- Record No:** A label with the value '0'.
- Buttons:** ADD NEW, EDIT, SAVE, CANCEL, DELETE, and CLOSE.
- Data Grid:** A table with columns: PKEY, HKEY, DEPTKEY, DESIGKEY, TASK, VOLUME, and PTIME. The grid is currently empty.

At the bottom of the screen, a taskbar shows 'Version 1.0.0' and several open applications: 'start', 'project files', 'Oracle SQL*Plus', 'Prt_production - M...', and 'EPO Project Repor...'. The system clock shows 6:08 PM.

View after having successfully added the task. We can see all the tasks in the grid. We can also save the proposed time for the completion of each task.

The screenshot shows a web application window titled 'Work Distribution & Production Tracking System'. Inside, there is a 'Tasks Entry Form' with the date '10-11-2010' and time '6:09:24 PM'. The form is titled 'Tasks Creation Entry Form' and includes a 'Record No' of 2. It has several input fields: 'Existing Task' (a dropdown), 'Select Head' (HEALTHCARE), 'Select Department' (PAYMENTS), 'Select Designation' (SPA), and 'Task Head' (process 50000-100000 mlyrly). There is also a 'Proposed Time' section with 'Proposed Hrs' (07) and 'Proposed Min' (02). A 'Special Assignment' checkbox is present. Below the form are buttons: 'ADD NEW', 'EDIT', 'SAVE', 'CANCEL', 'DELETE', and 'CLOSE'. At the bottom, there is a table with 8 columns: PKEY, HKEY, DEPTKEY, DESIOKEY, TASK, VOLUME, and PTIME. The table contains two rows of data.

PKEY	HKEY	DEPTKEY	DESIOKEY	TASK	VOLUME	PTIME
1	1	1	4	process 100		05
2	1	1	4	process 500		07

Version 1.0.0

Chapter 4.7

Work Assignment Form

Work Assignment form enables us to assign a task to the employees online. From the dropdowns we can select an employee out of the list of all the registered employees of a particular designation of a particular department under a particular head. We further select the task created to be assigned for the selected designation, from the dropdown list. We can perform add, edit and delete function on this form.

VERSION - Version 1.0 Mar 2009

ADMINISTRATOR DATA BACKUP REPORTS WINDOW EXIT

Work Assignment Form

09-03-2009 **Work Assignment Entry Form** 3:54:51 PM

Already Assigned Work

Filter Your Task Select Head Select Department Select Designation

HEALTHCARE PAYMENTS PA

Record No 0

Select Defined Tasks 1 post EOB 101-200

Select From Employees 1 Surinder Passi

Work Status Pending

Work Assign Date 3/9/2009 Work Assign Time 3:54:03 PM

Work Finish Date 3/9/2009 Work Finish Time 3:54:03 PM

Remarks Please do it in time as soon as possible

ADD NEW EDIT SAVE CANCEL DELETE CLOSE

FKEY	EMPKEY	TASKKEY	ASSIGN_DA	ASSIGN_TM	FINISH_DA	FINISH
------	--------	---------	-----------	-----------	-----------	--------

WORK ASSIGNMENT FORM CAPS NUM INS

start Guidelines_forESC-Bi... Project Documentatio... prj_production 21 Fe... 3:54 PM

Chapter 4.8

After adding one assignment to an employee. Details of all assignments made can be seen in the data grid.

VERSION - Version 1.0 Mar 2009

ADMINISTRATOR DATA BACKUP REPORTS WINDOW EXIT

Work Assignment Form

09-03-2009 4:03:19 PM

Already Assigned Work

Filter Your Tasks Select Head Select Department Select Designation

HEALTHCARE PAYMENTS PA

Record No 1

Select Defined Tasks 1 post EOB 101-200

Select From Employees 1 Suminder Passi

Work Status Pending

Work Assign Date 3/9/2009 Work Assign Time 3:54:03 PM

Work Finish Date 3/9/2009 Work Finish Time 3:54:03 PM

Remarks Please do it in time as soon as possible

ADD NEW EDIT SAVE CANCEL DELETE CLOSE

PK-KEY	EMPKEY	TASKKEY	ASSIGN_DA	ASSIGN_TM	FINISH_DA	FINISH_TM
1	9	2	3/9/2009	3:54:03 PM	3/9/2009	3:54:03

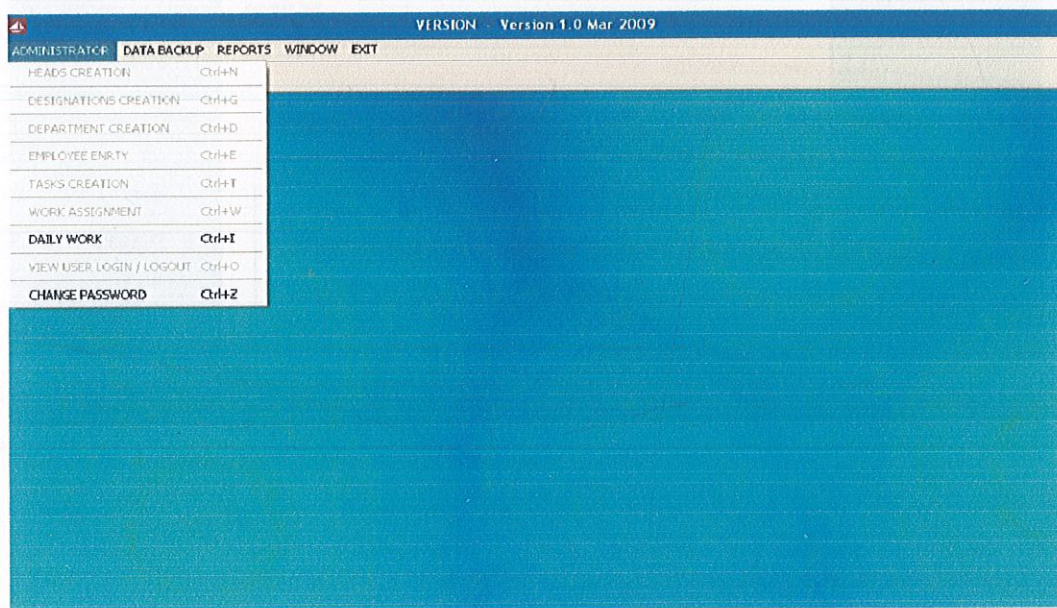
WORK ASSIGNMENT FORM CAPS NUM INS

start Guidelines_forBSC-Bt... Project Documentatio... prl_production 21 Fe... 4:03 PM

Daily Work Form

Daily work as soon as user login to the “Work Distribution & Production Tracking System” with the specified user id and the password for the system and opens his work sheet ie. Daily work form he can see the list off all the assignments for him/her. User is supposed to update the work status with comments if any at the end of the day or the work, which ever is first. Login and logout time of every user is recorded for the day. User can only access restricted form according to their rights for security reasons.

The first screen which user land in after successful login in to the “Work Distribution & Production Tracking System”.



User is suppose to view by pressing ALT+O option and then select the assignment from the list and after finishing that task put in the comments in the remarks fields, time started and time ended. User will further be prompted to select one of the status for work status and press update button to save it finally. The work will be record in the work assignments drop down list all the time it is not completed.

Opening the Daily worksheet the view for the user will look like

The screenshot shows a Windows application window titled 'Daily Work' with a menu bar (ADMINISTRATOR, DATA BACKUP, REPORTS, WINDOW, EXIT) and a status bar (VERSION - Version 1.0 Mar 2009). The main form is titled 'Daily Work Updation Form' and displays the date '09-03-2009', time '4:40:52 PM', and login information 'Login As - MH0008 Anuj Sharma'.

The form contains the following fields and controls:

- Existing Record:** A dropdown menu.
- Record No:** A text field displaying '1'.
- Select Assignment:** A dropdown menu showing 'process 1001-2000 sheets for batch - batmar2009'.
- Remarks And Work Description:** A text area containing 'do it soon, done'.
- Work Date:** A date picker showing '3/9/2009'.
- Time Fields:** Start Hours (01), Start Minutes (01), Finish Hours (02), Finish Minutes (01), and Worked Hrs / Min (01 / 00).
- Buttons:** ADD NEW, EDIT, SAVE, CANCEL, DELETE, and CLOSE.
- Table:** A table with columns PKEY, EMPKEY, WRK_PKEY, DESCRIPTION, DW_DATE, STIME_HRE, and STIME. It contains one row with values: 1, 7, 1, do it soon, d, 2009-03-11, 01, 01.

The Windows taskbar at the bottom shows the 'start' button and several open applications: Guidelines_for..., Project Docume..., pri_production..., and Oracle SQL*Plus.

Once you update with the status as completed, the select assignment dropdown list shows count as zero. Select assignment dropdown list shows the list and the count of only the assignments those are not yet to complete status. You can also view the details of all the work assigned with their status in the grid below.

User is suppose to view by pressing ADD option and then select the assignment from the list and after finishing that task put in the comments in the remarks fields, time started and time ended. User will further be prompted to select one of the choice for work status and press update button to save it finally. The work will be there in the user assignments drop down list till the time it is not completed.

VERSION - Version 1.0 Mar 2009

ADMINISTRATOR DATA BACKUP REPORTS WINDOW EXIT

Daily Work

09-03-2009 **Daily Work Updation Form** 4:36:17 PM

Login As - MH0008 Anuj Sharma

Existing Record

Record No 1

Select Assignment 1 process 100 Work Status Completed

Remarks And Work Description do it soon

Work Date 3/11/2009

Start Hours Start Minutes Finish Hours Finish Minutes Worked Hrs / Min

01 01 Till 02 01 01 00

ADD NEW EDIT SAVE CANCEL DELETE CLOSE

PKEY	EMPKEY	WRK_PKEY	DESCRIPTN	DAY_DATE	STIME_HRE	STIME
1	7	1	do it soon, d	2009-03-11	01	01

DAILY WORK CAPS NUM INS

start Guidelines_forB... Project Docume... prj_production... Oracle SQL*Plus 4:36 PM

Once you update with the status as completed, the select assignment dropdown list shows count as zero. Select assignment dropdown list shows the list and the count of only the assignments those are not yet in complete status. You can also view the details of all the work assigned what ever the status, in the grid below.

ADMINISTRATOR DATA BACKUP REPORTS WINDOW EXIT

VERSION - Version 1.0 Mar 2009

4:46:13 PM

Daily Work

09-03-2009

Daily Work Updation Form

Login As - MH0008 Anuj Sharma

Existing Record 1

Record No 1

Select Assignment 0 process 1001-2000 sheets for batch - batmar2009

Remarks And Work Description do it soon, done

Work Date 3/11/2009

Start Hours Start Minutes Finish Hours Finish Minutes Worked Hrs / Min

01 01 TUE 02 01 01 00

ADD NEW EDIT SAVE CANCEL DELETE CLOSE

PKEY	EMPKEY	WRK_PKEY	DESCRIPTH	DW_DATE	STIME_HRE	STIME
1	7	1	do it soon, d	2009-03-11	01	01

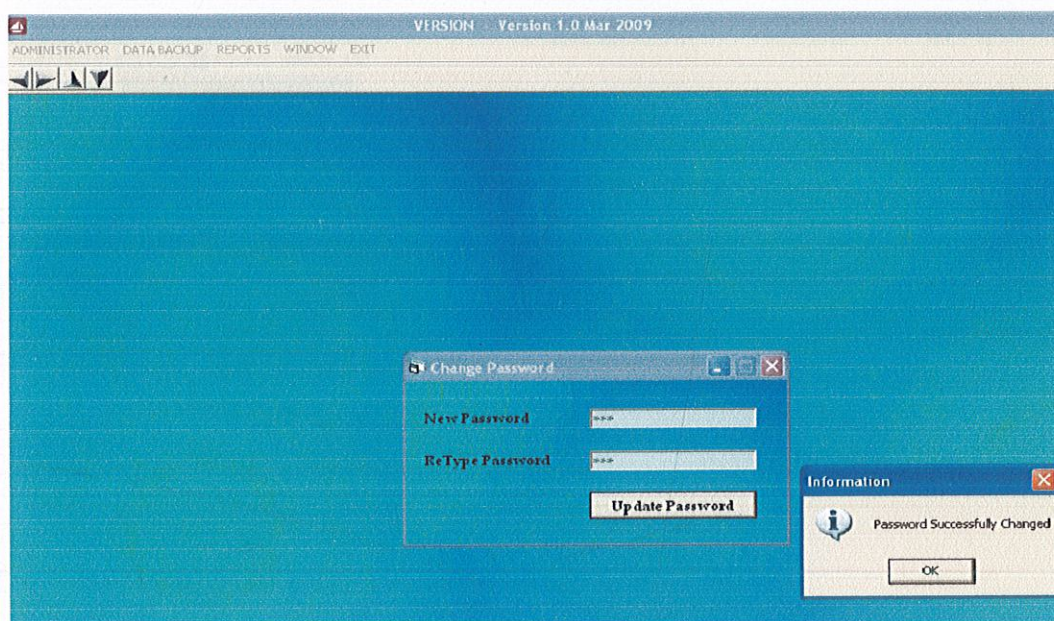
DAILY WORK CAPS NUM INS

start Guidelines_forB... Project Docume... pri_production... Oracle SQL*Plus 4:46 PM

Chapter 4.9

Change Password Form

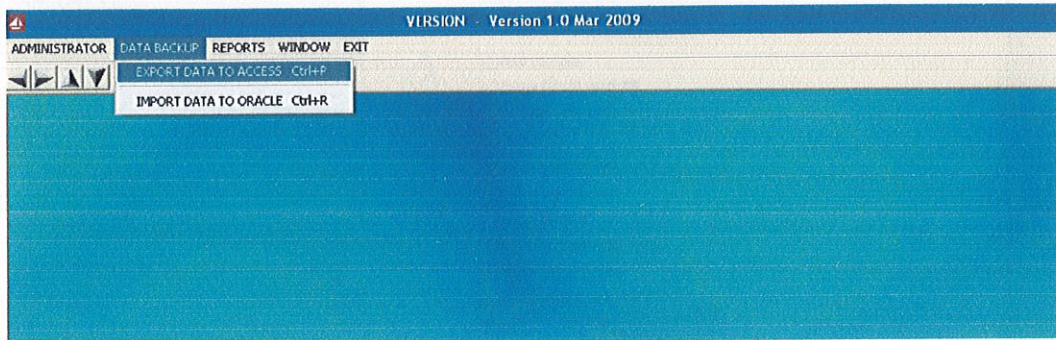
Change Password form allows the current user to change his /her password.



Chapter 4.10

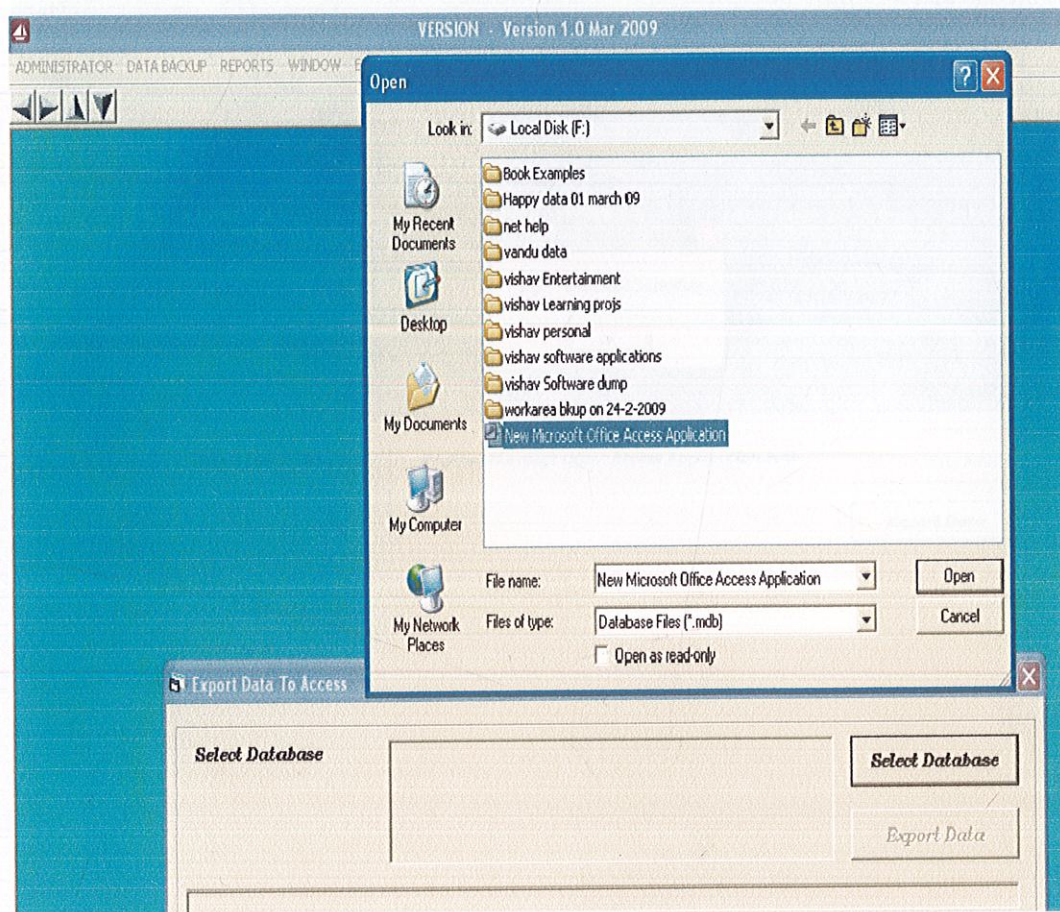
Database backups

Backup options to take a backup of the database into access database from Oracle database and vice versa of the same is also been provided.

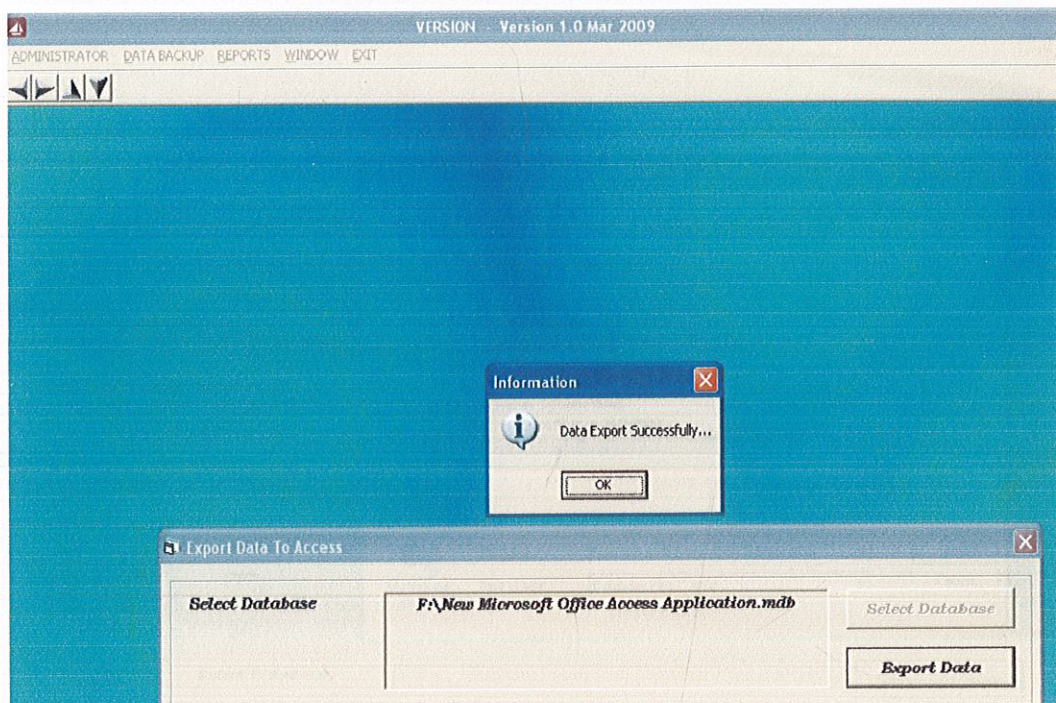


Exporting from Oracle 9i database to Access Database

Select Data Backup from menu and then select Export Data to Access database from Oracle 9i database. Click on the Select database button to further browse an empty access database .mdb file so as to export oracle database contents to it.

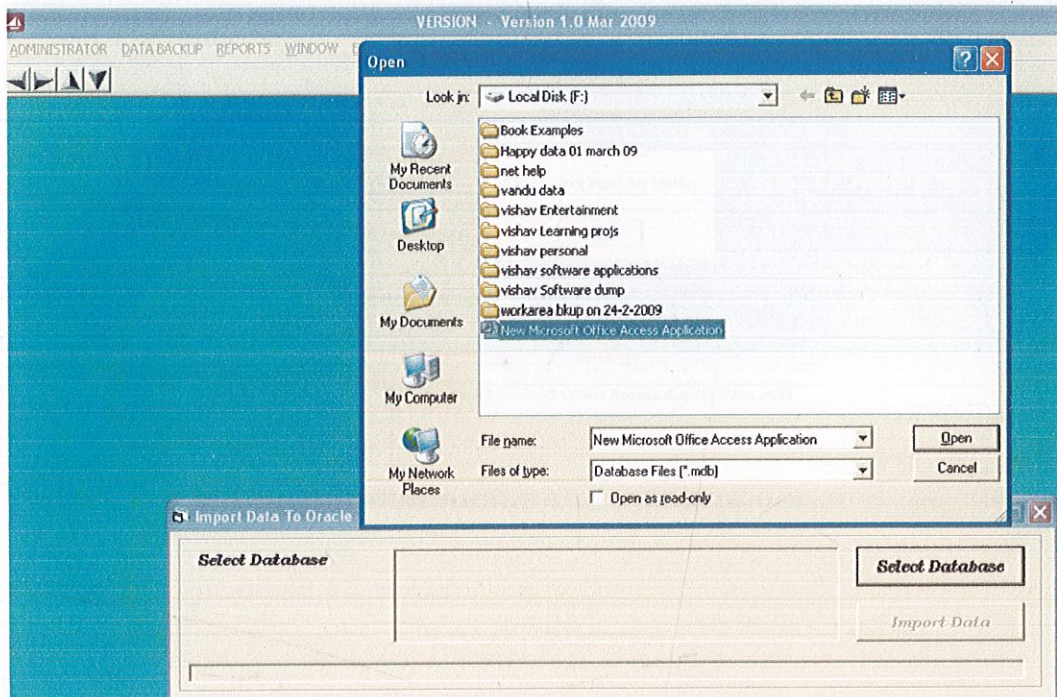


As you click on the Export button on the form you will get a message appropriately whether the export has been successful or not.

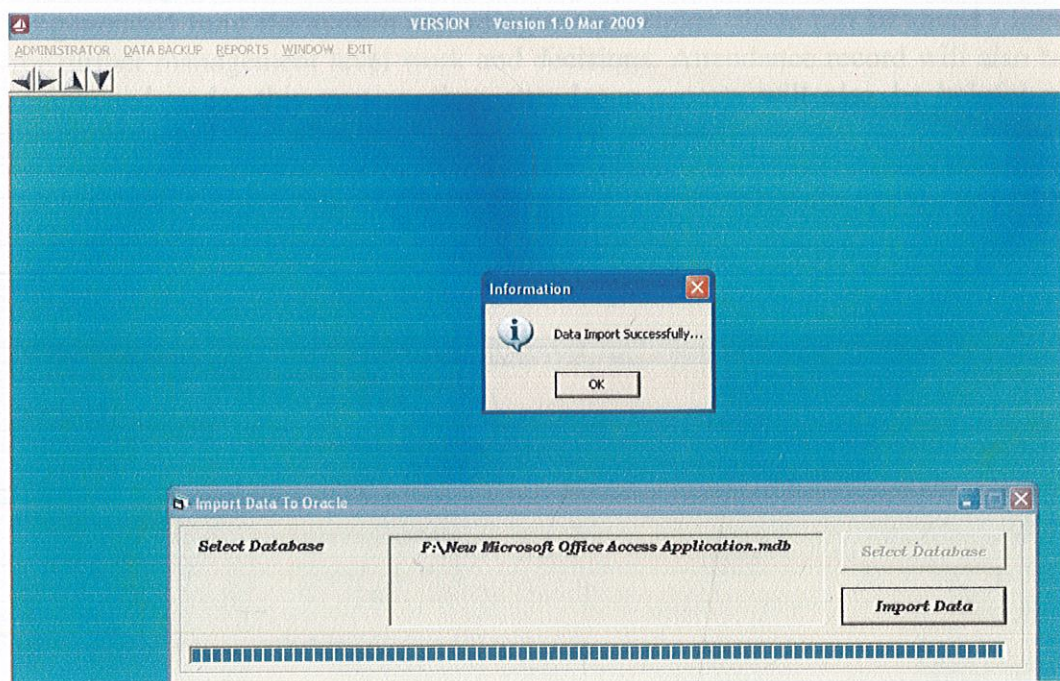


Importing Data from Access database to Oracle 9i database

Select Data Backup from menu and then select Import Data from Access database into Oracle 9i database. Click on the Select database button to further browse an empty access database .mdb file so as to export oracle database contents to it.

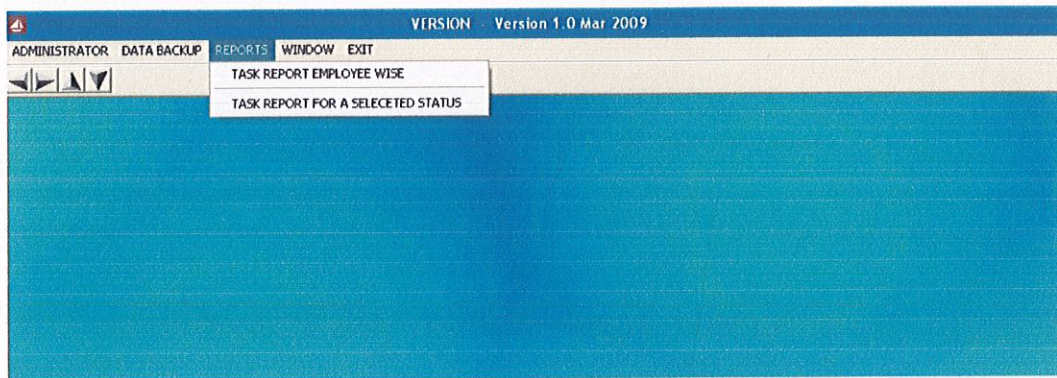


As you click on the Import button on the form you will get a message appropriately whether the import has been successful or not.



Reporting System in “Work Distribution & Production Tracking System”

Different reports related to evaluation of work status and user performance would be generated from the system according to user rights, those can be saved / used for further management level work and decisions. Attendance record will also be maintained under this system, thus attendance reports will also be helpful in evaluating employee attendance record for HR purpose.



Chapter 5

Report 1

The current report interface is for generating a process related report. Team leader or manager can generate these reports and can use the data for in different types according to their needs. This report shows the records where it shows the employee who processed the data, three records shows that an employee opened a particular work for processing twice before actually completing the work. Total time taken for completion of the task can be compared to judge the performance and productivity of the employee.

VERSION - Version 1.0 Mar 2009

ADMINISTRATOR DATA BACKUP REPORTS WINDOW EXIT

Tasks Report Employee Wise

NO. OF RECORDS IN ORDER TO COMPLETE THE SELECTED TASK from DAILY_WORK FILE

Employee Name Assigned Tasks Proposed Time 05: 00 Hours

PKEY	EMPKEY	WRK_PKEY	DESCRIPTION	DW_DATE	STIME_HRS	STIME_MIN	ETIME_HRS	ETIME_MIN
5	1	3	anuj wrk1, completed till 250	3/9/2009	02	02	04	02
6	1	3	anuj wrk1.completed	3/10/2009	02	02	06	02

Chapter 5.1

Report 2

The current report interface is for generating a process related report. Team leader or manager can generate these reports and can use the data for in different types according to their needs. This report shows the task list under a particular work status (completed, In Process, Pending) for a selected employee who processed that data. Task assignment date and time, task finish date and time for the list of tasks can be seen in this report.

VERSION - Version 1.0 Mar 2009

ADMINISTRATOR DATA BACKUP REPORTS WINDOW EXIT

Remaining Tasks

TASK REPORT FOR A SELECTED STATUS from WORK ASSIGNMENT FILE

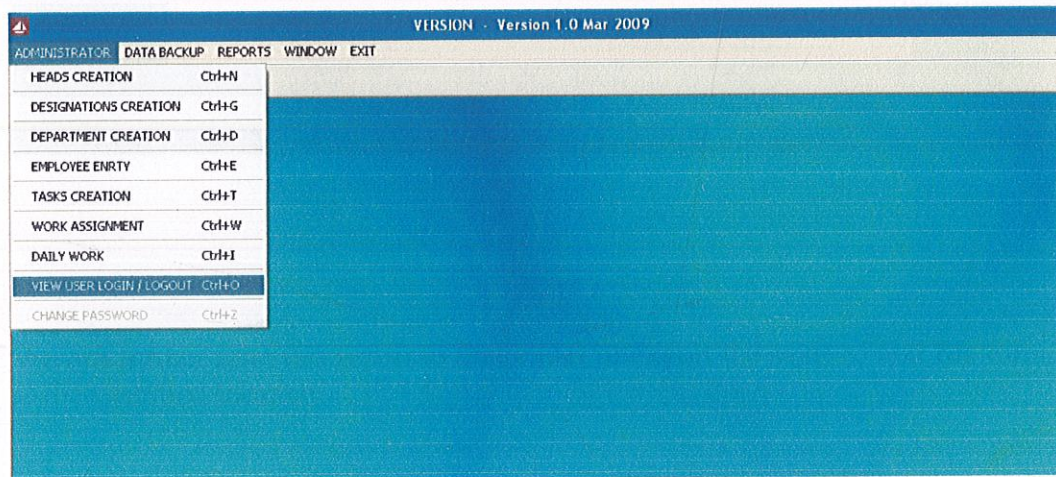
Employee Name: Anuj Work Status: Completed

PKKEY	EMPKEY	TASKKEY	ASS	FINISH DATE	FINISH TIME	W STATUS	REMARKS
3	1	3	3/10/2009	6:34:40 PM	Completed	anuj wrk1	

Chapter 5.3

Report 3

As login and logout time in to the “Work Distribution & Production Tracking System” system for every user/employee is recorded in the system, reports for the same can be generated at the same time. Attendance record is an important feature of this system. In this way attendance reports can be used and be helpful in evaluating employee attendance for HR purpose.



In this screen we can see that we have selected the id of a particular employee by passing from and to dated values to retrieve the attendance report of that employee, along with that we can also see the login and logout time of the employee on a particular date.

ADMINISTRATOR DATA BACKUP REPORTS WINDOW EXIT

VERSION : Version 1.0 Mar 2009

10-03-2009

Daily Attendance Form

6:10:40 PM

Anuj

Date From Date To

Employee ID MH0008 3/8/2009 3/10/2009

Show Report Print Report

Records 2

PKEY	USERID	WDAY	LOG DATE	LOGIN TIME	LOGOUT TIME
3	MH0008	MON	3/9/2009	2:03:48 PM	7:04:22 PM
1	MH0008	TUE	3/10/2009	1:57:14 PM	5:05:28 PM

DAILY ATTENDANCE FORM CAPS NUM INS

start Project Documentatio...

5:10 PM

We can further send this report to the printer or export the same to text file format at the specified location.

VERSION - Version 1.0 Mar 2009

ADMINISTRATOR DATA BACKUP REPORTS WINDOW EXIT

Daily Attendance Form

10-03-2009 6:15:20 PM

Anuj

Employee ID: MH0008 Date From: 3/8/2009 Date To: 3/10/2009 Show Report Print Report

Records: 2

PKEY	USERID	WDAY	LOG DATE	LOGIN TIME	LOGOUT TIME
3	MH0008	MON	3/9/2009	2:03:48 PM	7:04:22 PM
1	MH0008	TUE	3/10/2009	1:57:14 PM	5:05:28 PM

Log In/Out Reoprt

Zoom: 100%

Employee	Login Date	Login Time	Logout Time
MH0008	3/9/2009	2:03:48 PM	7:04:22 PM
MH0008	3/10/2009	1:57:14 PM	5:05:28 PM

Pages: 1/1

DAILY ATTENDANCE FORM CAPS NUM INS

start Project Documentatio...

5:15 PM

Chapter 6

Form Coding

Frmheads

```
Option Explicit
Dim rsheads As New ADODB.Recordset
Dim rsheadstmp As New ADODB.Recordset
Dim rsfind As New ADODB.Recordset
Dim stat, cstat As String
Private Sub cmbheads_Click()
Dim b As Long
If rsheads.RecordCount > 0 Then
    b = cmbheads.ListIndex
    rsheads.MoveFirst
    rsheads.Move b
    Call get_rec
    lblrecno.Caption = rsheads.Bookmark
End If
End Sub

Private Sub cmbheads_KeyPress(KeyAscii As Integer)
If KeyAscii = 13 Then
    KeyAscii = 0
    SendKeys "{tab}"
End If
End Sub

Private Sub Timer1_Timer()
    lbl_tm.Caption = Time
End Sub
Public Sub next_rec()
On Error GoTo errlabel
    If Not rsheads.EOF Then
        rsheads.MoveNext
    End If
    If rsheads.EOF Then
        rsheads.MoveLast
    End If
    Call get_rec
    Exit Sub
errlabel:
    MsgBox Err.Description
End Sub
Public Sub pre_rec()
```



```

On Error GoTo errlabel
    If Not rsheads.BOF Then
        rsheads.MovePrevious
    End If
    If rsheads.BOF Then
        rsheads.MoveFirst
    End If
    Call get_rec
    Exit Sub
errlabel:
    MsgBox Err.Description
End Sub
Public Sub first_rec()
On Error GoTo errlabel
    If rsheads.RecordCount > 0 Then
        rsheads.MoveFirst
        Call get_rec
    End If
    Exit Sub
errlabel:
    MsgBox Err.Description
End Sub
Public Sub last_rec()
On Error GoTo errlabel
    If rsheads.RecordCount > 0 Then
        rsheads.MoveLast
        Call get_rec
    End If
    Exit Sub
errlabel:
    MsgBox Err.Description
End Sub
Private Sub cmdback_Click()
On Error GoTo errlabel
    Unload Me
Exit Sub
errlabel:
    MsgBox Err.Description
End Sub
Private Sub cmdadd_Click()
On Error GoTo errlabel

Dim temp, k, cnt As Long

cstat = "ADD"

```



```

With rsheads
If .RecordCount > 0 Then
    prev_bkmark = rsheads.Bookmark
    .MoveFirst
    temp = .Fields("pkey")
    .MoveLast
    cnt = .RecordCount
    .MoveFirst
    For k = 0 To cnt - 1
        If temp < .Fields("pkey") Then
            temp = .Fields("pkey")
        End If
        .MoveNext
    Next k

    lblpkey.Caption = temp + 1
    Call ref_rec
Else
    lblpkey.Caption = "1"
End If
End With

cmbheads.Enabled = False

ena_dis_head ("E")
ena_dis_cntrl ("ADD")
txthead.SetFocus

Exit Sub
errlabel:
    MsgBox Err.Description
End Sub

Private Sub cmdcancel_Click()
On Error GoTo errlabel
    If rsheads.RecordCount > 0 Then
        If cstat = "ADD" Then
            rsheads.MoveFirst
            rsheads.Move prev_bkmark - 1
        End If
        Call get_rec
    Else
        Call ref_rec
    End If

    cmbheads.Enabled = True

```



```

ena_dis_head ("D")
ena_dis_cntrl ("DIS")
cmdadd.SetFocus
Exit Sub
errlabel:
    MsgBox Err.Description
End Sub

Private Sub cmddelete_Click()
On Error GoTo errlabel
Dim ans As String

ans = MsgBox(" Sure To Delete ", vbQuestion + vbYesNo, " Confirmation")

If ans = vbNo Then
    Exit Sub
Else
    '-----
    pmkey = lblpkey.Caption
    rsheads.Requery
    If Not rsheads.EOF Or Not rsheads.BOF Then
        ""verifying existence of the record in the table ""
        Set rsbmark = rsheads.Clone
        rsbmark.Filter = "pkey =" & pmkey

        If Not rsbmark.EOF Or Not rsbmark.BOF Then
            rsheads.Bookmark = rsbmark.Bookmark
        Else
            MsgBox "Record Not Found or Record has already been Deleted",
vbInformation + vbOKOnly, "Information"
            Call ref_rec

            If Not rsheads.EOF Then
                rsheads.MoveNext
            End If

            If rsheads.EOF Then
                If rsheads.RecordCount > 0 Then
                    rsheads.MoveLast
                End If
            End If

            Call get_rec
            Call cmb_rec
        
```



```

Set MSHFlexGrid1.DataSource = rsheads
MSHFlexGrid1.Refresh

ena_dis_head ("D")
ena_dis_cntrl ("DIS")
Exit Sub
End If
'-----
conn.Execute ("delete from heads where pkey=" & lblpkey.Caption & "'")
rsheads.Requery

Call ref_rec
End If

If Not rsheads.EOF Then
    rsheads.MoveNext
End If
If rsheads.EOF Then

If rsheads.RecordCount > 0 Then
    rsheads.MoveLast
End If
End If

Call get_rec
Call cmb_rec

Set MSHFlexGrid1.DataSource = rsheads
MSHFlexGrid1.Refresh

ena_dis_head ("D")
ena_dis_cntrl ("DIS")
'-----
End If
Exit Sub
errlabel:
If Err.Number = -2147217873 Then
    MsgBox "Record can't be deleted since there are child records associated
to current record" & Err.Description, vbInformation + vbOKOnly, "Information"
Else
    MsgBox Err.Description
End If
End Sub

Private Sub cmdedit_Click()
On Error GoTo errlabel

```



```

cstat = "EDIT"
prev_bkmark = rsheads.Bookmark

ena_dis_head ("E")
ena_dis_cntrl ("EDIT")

Call get_rec

uval = txthead.Text ' uval is a global text variable used to store unique field's
value for comparision while saving
pmkey = lblpkey.Caption

txthead.SetFocus

Call cmb_rec
cmbheads.Enabled = False

Exit Sub
errlabel:
    MsgBox Err.Description
End Sub
Private Sub ref_rec()
On Error GoTo errlabel
Dim con As Control

For Each con In Controls
    If TypeOf con Is TextBox Then
        con.Text = ""
    End If
Next

Exit Sub
errlabel:
    MsgBox Err.Description
End Sub
Private Sub get_rec()
On Error GoTo errlabel
If rsheads.RecordCount <= 0 Then
    lblrecno.Caption = 0
    Exit Sub
End If

    lblpkey.Caption = rsheads.Fields("pkey")
    txthead.Text = rsheads.Fields("head")
    lblrecno.Caption = rsheads.Bookmark
Exit Sub

```



```

errlabel:
    MsgBox Err.Description
End Sub
Private Sub ena_dis_cntrl(c_stat As String)
    Select Case c_stat

        Case "ADD"
            cmdadd.Enabled = False
            cmddelete.Enabled = False
            cmdedit.Enabled = False
            cmdsave.Enabled = True
            cmdcancel.Enabled = True
            cmdback.Enabled = False
            stat = "ENTRY"

        Case "EDIT"
            cmdadd.Enabled = False
            cmddelete.Enabled = False
            cmdedit.Enabled = False
            cmdsave.Enabled = True
            cmdcancel.Enabled = True
            cmdback.Enabled = False
            stat = "ENTRY"

        Case "DIS"
            If rsheads.RecordCount > 0 Then
                cmdadd.Enabled = True
                cmddelete.Enabled = True
                cmdedit.Enabled = True
                cmdsave.Enabled = False
                cmdcancel.Enabled = False
                cmdback.Enabled = True
            Else
                cmdadd.Enabled = True
                cmddelete.Enabled = False
                cmdedit.Enabled = False
                cmdsave.Enabled = False
                cmdcancel.Enabled = False
                cmdback.Enabled = True
            End If
            stat = "FORM"
        End Select
    End Sub
Private Sub ena_dis_head(ed As String)
    If ed = "D" Then

        txtthead.Enabled = False
    Else

```



```

        txthead.Enabled = True
    End If
End Sub

Private Sub cmdsave_Click()
    On Error GoTo errlabel
    flg_nxt = True

    rsheads.Requery

    '=====checking validations=====
    If flg_nxt = True Then
        Call txthead_myvalidations
    Else
        Exit Sub
    End If

    If flg_nxt = False Then
        Exit Sub
    End If

    '=====
    If cstat = "ADD" Then
        rsheads.AddNew
    Else
        '+++++++
        Set rsbmark = rsheads.Clone
        rsbmark.Filter = "pkey =" & pmkey

        If Not rsbmark.EOF Or Not rsbmark.BOF Then
            rsheads.Bookmark = rsbmark.Bookmark
        Else
            MsgBox "Record not Found or Record has already been Deleted",
vbInformation + vbOKOnly, "Information"
            Call ref_rec
            Call get_rec
            Set MSHFlexGrid1.DataSource = rsheads
            MSHFlexGrid1.Refresh

            ena_dis_head ("D")
            ena_dis_cntrl ("DIS")

            Call cmb_rec

            cmbheads.Enabled = True
            cmdadd.SetFocus
            Exit Sub
        End If
    End If
End Sub

```



```

End If
'+++++
End If

rsheads.Fields("pkey") = lblpkey.Caption
rsheads.Fields("head") = UCase(txtthead.Text)

rsheads.Update

Call get_rec
Set MSHFlexGrid1.DataSource = rsheads
MSHFlexGrid1.Refresh

ena_dis_head ("D")
ena_dis_cntrl ("DIS")

Call cmb_rec

cmbheads.Enabled = True
cmdadd.SetFocus
Exit Sub
errlabel:
MsgBox Err.Description
End Sub
Private Sub cmb_rec()
Dim i, recnt As Long

cmbheads.Clear

If rsfind.State = adStateOpen Then
    rsfind.Close
    Set rsfind = Nothing
End If

Set rsfind = rsheads.Clone

If rsfind.RecordCount > 0 Then
    rsfind.MoveLast
    recnt = rsfind.RecordCount
    rsfind.MoveFirst
    For i = 0 To recnt - 1
        cmbheads.AddItem rsfind.Fields("head")
    rsfind.MoveNext
    Next i
End If
End Sub

```

```
Private Sub Form_Activate()
```

```
    lbl_dt.Caption = Format(Date, "dd-mm-yyyy")
```

```
    lbl_tm.Caption = Time
```

```
    Call cmb_rec
```

```
    mdiproduction.CenterForm frmheads
```

```
    mdiproduction.universal = UCase(Me.Name)
```

```
    mdiproduction.StatusBar1.Panels(1).Text = UCase(Me.Caption)
```

```
End Sub
```

```
Private Sub Form_Load()
```

```
On Error GoTo errlabel
```

```
If rsheads.State = adStateOpen Then
```

```
    rsheads.Close
```

```
    Set rsheads = Nothing
```

```
End If
```

```
rsheads.Open "select * from heads order by pkey", conn, adOpenDynamic,  
adLockOptimistic
```

```
mdiproduction.CenterForm frmheads
```

```
Call get_rec
```

```
Set MSHFlexGrid1.DataSource = rsheads
```

```
MSHFlexGrid1.Refresh
```

```
ena_dis_head ("D")
```

```
ena_dis_cntrl ("DIS")
```

```
Exit Sub
```

```
errlabel:
```

```
    MsgBox Err.Description
```

```
End Sub
```

```
Private Sub Form_Unload(Cancel As Integer)
```

```
On Error GoTo errlabel
```

```
' If rsheads.State = adStateOpen Then
```

```
'     rsheads.Close
```

```
'     Set rsheads = Nothing
```

```
' End If
```

```
mdiproduction.universal = "NULL"
```

```
mdiproduction.StatusBar1.Panels(1).Text = UCase("PRO TRACK VERSION  
1.0")
```

```
Exit Sub
```

```
errlabel:
```

```
    MsgBox Err.Description
```

```
End Sub
```



```

Private Sub txthead_myvalidations()
On Error GoTo errlabel
Dim k, ecnt As Long
If Trim(txthead.Text) = "" Then
    MsgBox "Field Head Cannot Be Empty", vbInformation + vbOKOnly,
    "Information"
    txthead.SetFocus
    flg_nxt = False
    Exit Sub
End If
'+++++ DUPLICATE CHECK +++++
If cstat = "ADD" Then

If UCase(uval) <> UCase(txthead.Text) Then
Set rsheadstmp = rsheads.Clone
With rsheadstmp
If .RecordCount > 0 Then
.MoveLast
ecnt = .RecordCount
.MoveFirst
For k = 0 To ecnt - 1
    If UCase(.Fields("head")) = UCase(txthead.Text) Then
        MsgBox "Head Already Exist.....", vbCritical + vbOKOnly, "Warning"
        txthead.SetFocus
        flg_nxt = False
        txthead.SelStart = 0
        txthead.SelLength = Len(txthead.Text)
        Exit Sub
    End If
    .MoveNext
Next k
End If
End With
End If
uval = ""
'End If
Exit Sub
errlabel:
    MsgBox Err.Description
End Sub
Private Sub txthead_KeyPress(KeyAscii As Integer)
If KeyAscii = 13 Then
    KeyAscii = 0
    SendKeys "{tab}"
End If
End Sub

```

Chapter 6.1

Frmdesignations

```
Option Explicit
Dim rsdesig As New ADODB.Recordset
Dim rsdesigtmp As New ADODB.Recordset
Dim rsfind As New ADODB.Recordset
Dim stat, cstat As String
Private Sub cmbdesig_Click()
Dim b As Long
If rsdesig.RecordCount > 0 Then
    b = cmbdesig.ListIndex
    rsdesig.MoveFirst
    rsdesig.Move b
    Call get_rec
    lblrecno.Caption = rsdesig.Bookmark
End If
End Sub
Private Sub cmbdesig_KeyPress(KeyAscii As Integer)
If KeyAscii = 13 Then
    KeyAscii = 0
    SendKeys "{tab}"
End If
End Sub

Private Sub Timer1_Timer()
    lbl_tm.Caption = Time
End Sub
Private Sub cmdadd_Click()
On Error GoTo errlabel

Dim temp, k, cnt As Long

cstat = "ADD"

With rsdesig
If .RecordCount > 0 Then
    prev_bkmark = rsdesig.Bookmark
    .MoveFirst
    temp = .Fields("pkey")
    .MoveLast
    cnt = .RecordCount
    .MoveFirst
    For k = 0 To cnt - 1
        If temp < .Fields("pkey") Then
```



```

        temp = .Fields("pkey")
    End If
    .MoveNext
Next k

    lblpkey.Caption = temp + 1
    Call ref_rec
Else
    lblpkey.Caption = "1"
End If
End With

cmbdesig.Enabled = False

ena_dis_head ("E")
ena_dis_cntrl ("ADD")
txtdesig.SetFocus

Exit Sub
errlabel:
    MsgBox Err.Description

End Sub

Private Sub cmdcancel_Click()
On Error GoTo errlabel
    If rsdesig.RecordCount > 0 Then
        If cstat = "ADD" Then
            rsdesig.MoveFirst
            rsdesig.Move prev_bkmark - 1
        End If
        Call get_rec
    Else
        Call ref_rec
    End If

    cmbdesig.Enabled = True

    ena_dis_head ("D")
    ena_dis_cntrl ("DIS")
    cmdadd.SetFocus
Exit Sub
errlabel:
    MsgBox Err.Description
End Sub

```

```

Private Sub cmddelete_Click()
On Error GoTo errlabel
Dim ans As String

ans = MsgBox(" Sure To Delete ", vbQuestion + vbYesNo, " Confirmation")

If ans = vbNo Then
Exit Sub
Else
'-----
pmkey = lblpkey.Caption
rsdesig.Requery
If Not rsdesig.EOF Or Not rsdesig.BOF Then
""verifying existence of the record in the table ""
Set rsbmark = rsdesig.Clone
rsbmark.Filter = "pkey =" & pmkey

If Not rsbmark.EOF Or Not rsbmark.BOF Then
rsdesig.Bookmark = rsbmark.Bookmark
Else
MsgBox "Record Not Found or Record has already been Deleted",
vbInformation + vbOKOnly, "Information"
Call ref_rec

If Not rsdesig.EOF Then
rsdesig.MoveNext
End If

If rsdesig.EOF Then
If rsdesig.RecordCount > 0 Then
rsdesig.MoveLast
End If
End If

Call get_rec
cmb_rec

Set MSHFlexGrid1.DataSource = rsdesig
MSHFlexGrid1.Refresh

ena_dis_head ("D")
ena_dis_cntrl ("DIS")
Exit Sub
End If
""
rsdesig.Delete

```



```

    Call ref_rec
End If

If Not rsdesig.EOF Then
    rsdesig.MoveNext
End If
If rsdesig.EOF Then

    If rsdesig.RecordCount > 0 Then
        rsdesig.MoveLast
    End If
End If

Call get_rec
cmb_rec

Set MSHFlexGrid1.DataSource = rsdesig
MSHFlexGrid1.Refresh

ena_dis_head ("D")
ena_dis_cntrl ("DIS")
'-----
End If
Exit Sub
errlabel:
    MsgBox Err.Description
End Sub

Private Sub cmdedit_Click()
On Error GoTo errlabel
cstat = "EDIT"
    prev_bkmark = rsdesig.Bookmark

    ena_dis_head ("E")
    ena_dis_cntrl ("EDIT")

    Call get_rec

    uval = txtdesig.Text ' uval is a global text variable used to store unique field's
value for comparision while saving
    pmkey = lblpkey.Caption

    txtdesig.SetFocus

    Call cmb_rec
    cmbdesig.Enabled = False

```

```

Exit Sub
errlabel:
    MsgBox Err.Description
End Sub
Private Sub ref_rec()
On Error GoTo errlabel
Dim con As Control

For Each con In Controls
    If TypeOf con Is TextBox Then
        con.Text = ""
    ElseIf TypeOf con Is Image Then
        con.Picture = Nothing
    End If
Next

Exit Sub
errlabel:
    MsgBox Err.Description
End Sub
Private Sub get_rec()
On Error GoTo errlabel
If rsdesig.RecordCount <= 0 Then
    lblrecno.Caption = 0
    Exit Sub
End If

    lblpkey.Caption = rsdesig.Fields("pkey")
    txtdesig.Text = rsdesig.Fields("desig")
    lblrecno.Caption = rsdesig.Bookmark
Exit Sub
errlabel:
    MsgBox Err.Description
End Sub
Private Sub ena_dis_ctrl(c_stat As String)
    Select Case c_stat

        Case "ADD"
            cmdadd.Enabled = False
            cmddelete.Enabled = False
            cmdedit.Enabled = False
            cmdsave.Enabled = True
            cmdcancel.Enabled = True
            cmdback.Enabled = False
            stat = "ENTRY"

```


Case "EDIT"

cmdadd.Enabled = False
cmddelete.Enabled = False
cmdedit.Enabled = False
cmdsave.Enabled = True
cmdcancel.Enabled = True
cmdback.Enabled = False
stat = "ENTRY"

Case "DIS"

If rsdesig.RecordCount > 0 Then

cmdadd.Enabled = True
cmddelete.Enabled = True
cmdedit.Enabled = True
cmdsave.Enabled = False
cmdcancel.Enabled = False
cmdback.Enabled = True

Else

cmdadd.Enabled = True
cmddelete.Enabled = False
cmdedit.Enabled = False
cmdsave.Enabled = False
cmdcancel.Enabled = False
cmdback.Enabled = True

End If

stat = "FORM"

End Select

End Sub

Private Sub ena_dis_head(ed As String)

If ed = "D" Then

txtdesig.Enabled = False

Else

txtdesig.Enabled = True

End If

End Sub

Private Sub cmdsave_Click()

On Error GoTo errlabel

flg_nxt = True

rsdesig.Requery

'=====checking validations=====

If flg_nxt = True Then

Call txtdesig_myvalidations

Else

```

Exit Sub
End If

If flg_nxt = False Then
Exit Sub
End If
'=====
If cstat = "ADD" Then
rsdesig.AddNew
Else
'+++++++
Set rsbmark = rsdesig.Clone
rsbmark.Filter = "pkey =" & pmkey

If Not rsbmark.EOF Or Not rsbmark.BOF Then
rsdesig.Bookmark = rsbmark.Bookmark
Else
MsgBox "Record not Found or Record has already been Deleted",
vbInformation + vbOKOnly, "Information"
Call ref_rec
Call get_rec
Set MSHFlexGrid1.DataSource = rsdesig
MSHFlexGrid1.Refresh

ena_dis_head ("D")
ena_dis_cntrl ("DIS")

cmb_rec

cmbdesig.Enabled = True
cmdadd.SetFocus
Exit Sub
End If
'+++++++
End If

rsdesig.Fields("pkey") = lblpkey.Caption
rsdesig.Fields("desig") = UCase(txtdesig.Text)

rsdesig.Update

Call get_rec
Set MSHFlexGrid1.DataSource = rsdesig
MSHFlexGrid1.Refresh

ena_dis_head ("D")

```



```

ena_dis_ctrl ("DIS")

cmb_rec

cmbdesig.Enabled = True
cmdadd.SetFocus
Exit Sub
errlabel:
MsgBox Err.Description
End Sub
Private Sub cmb_rec()
Dim i, recnt As Long

cmbdesig.Clear

If rsfind.State = adStateOpen Then
    rsfind.Close
    Set rsfind = Nothing
End If

Set rsfind = rsdesig.Clone

If rsfind.RecordCount > 0 Then
    rsfind.MoveLast
    recnt = rsfind.RecordCount
    rsfind.MoveFirst
    For i = 0 To recnt - 1
        cmbdesig.AddItem rsfind.Fields("desig")
    rsfind.MoveNext
    Next i
End If
End Sub
Private Sub Form_Activate()

    lbl_dt.Caption = Format(Date, "dd-mm-yyyy")
    lbl_tm.Caption = Time

    Call cmb_rec

    mdiproduction.CenterForm frmdesignations
    mdiproduction.universal = UCase(Me.Name)
    mdiproduction.StatusBar1.Panels(1).Text = UCase(Me.Caption)

End Sub

Private Sub Form_Load()

```

```

On Error GoTo errlabel

If rsdesig.State = adStateOpen Then
    rsdesig.Close
    Set rsdesig = Nothing
End If

rsdesig.Open "select * from designations Order by pkey", conn, adOpenDynamic,
adLockOptimistic
Call get_rec
Set MSHFlexGrid1.DataSource = rsdesig
MSHFlexGrid1.Refresh

ena_dis_head ("D")
ena_dis_cntrl ("DIS")

Exit Sub
errlabel:
    MsgBox Err.Description
End Sub
Private Sub Form_Unload(Cancel As Integer)
On Error GoTo errlabel
    If rsdesig.State = adStateOpen Then
        rsdesig.Close
        Set rsdesig = Nothing
    End If

    Unload Me
    mdiproduction.universal = "NULL"
    mdiproduction.StatusBar1.Panels(1).Text = UCase("PRO TRACK VERSION
1.0")
Exit Sub
errlabel:
    MsgBox Err.Description
End Sub
Private Sub txtdesig_myvalidations()
On Error GoTo errlabel
Dim k, ecnt As Long

If Trim(txtdesig.Text) = "" Then
    MsgBox "Field Heads Cannot Be Empty", vbInformation + vbOKOnly,
"Information"
    txtdesig.SetFocus
    flg_nxt = False
Exit Sub
End If

```



```

'+++++ DUPLICATE CHECK +++++
'If cstat = "ADD" Then

If UCase(uval) <> UCase(txtdesig.Text) Then
Set rsdesigtmp = rsdesig.Clone
With rsdesigtmp
If .RecordCount > 0 Then
.MoveLast
ecnt = .RecordCount
.MoveFirst
For k = 0 To ecnt - 1
If UCase(.Fields("desig")) = UCase(txtdesig.Text) Then
MsgBox "Designation Already Exist.....", vbCritical + vbOKOnly,
"Warning"
txtdesig.SetFocus
flg_nxt = False
txtdesig.SelStart = 0
txtdesig.SelLength = Len(txtdesig.Text)
Exit Sub
End If
.MoveNext
Next k
End If
End With
End If
uval = ""
'End If
'+++++
Exit Sub
errlabel:
MsgBox Err.Description
End Sub
Private Sub txtdesig_KeyPress(KeyAscii As Integer)
If KeyAscii = 13 Then
KeyAscii = 0
SendKeys "{tab}"
End If
End Sub

```

Chapter 6.2

Frmdepartment

Option Explicit

```
Dim rsdept As New ADODB.Recordset
Dim rshname As New ADODB.Recordset
Dim rsdepttmp As New ADODB.Recordset
Dim rsfind As New ADODB.Recordset
Dim rsgetkey As New ADODB.Recordset
Dim stat, cstat As String
Public Sub grid_data() ' to show data in grid
Dim rsgrid As New ADODB.Recordset

With rsgrid
    If .State = adStateOpen Then
        .Close
        Set rsgrid = Nothing
    End If

    .Open "select d.pkey,h.head,d.dname from heads h,departments d where
h.pkey=d.hkey", conn, adOpenDynamic, adLockOptimistic

    Set MSHFlexGrid1.DataSource = rsgrid
    MSHFlexGrid1.Refresh

End With
End Sub
Function get_key(a As Long)
Dim head As String
If IsEmpty(a) = True Then
    Exit Function
Else
    rsgetkey.MoveFirst
    While rsgetkey.EOF <> True
        If a = rsgetkey.Fields(0) Then
            head = rsgetkey.Fields(1)
            GoTo label
        End If
        rsgetkey.MoveNext
    Wend
label:
    get_key = head
End If
End Function
```



```

Private Sub cmbdept_Click()
Dim b As Long
If rsdept.RecordCount > 0 Then
    b = cmbdept.ListIndex
    rsdept.MoveFirst
    rsdept.Move b
    Call get_rec
    lblrecno.Caption = rsdept.Bookmark
End If
End Sub

```

```

Private Sub cmbdept_KeyPress(KeyAscii As Integer)
If KeyAscii = 13 Then
    KeyAscii = 0
    SendKeys "{tab}"
End If
End Sub

```

```

Private Sub cmbhead_Click()
cmbhkey.ListIndex = cmbhead.ListIndex
End Sub

```

```

Private Sub cmbhead_KeyPress(KeyAscii As Integer)
If KeyAscii = 13 Then
    KeyAscii = 0
    SendKeys "{tab}"
End If
End Sub

```

```

Private Sub cmdcancel_Click()
On Error GoTo errlabel
If rsdept.RecordCount > 0 Then
    If cstat = "ADD" Then
        rsdept.MoveFirst
        rsdept.Move prev_bkmark - 1
    End If
    Call get_rec
Else
    Call ref_rec
End If

```

```

cmbdept.Enabled = True

```

```

ena_dis_head ("D")
ena_dis_ctrl ("DIS")
cmdadd.SetFocus

```

```

Exit Sub
errlabel:
    MsgBox Err.Description
End Sub

Private Sub cmddelete_Click()
    On Error GoTo errlabel
    Dim ans As String

    ans = MsgBox(" Sure To Delete ", vbQuestion + vbYesNo, " Confirmation")

    If ans = vbNo Then
        Exit Sub
    Else
        '-----
        pmkey = lblpkey.Caption
        rsdept.Requery
        If Not rsdept.EOF Or Not rsdept.BOF Then
            ""verifying existence of the record in the table ""
            Set rsbmark = rsdept.Clone
            rsbmark.Filter = "pkey =" & pmkey

            If Not rsbmark.EOF Or Not rsbmark.BOF Then
                rsdept.Bookmark = rsbmark.Bookmark
            Else
                MsgBox "Record Not Found or Record has already been Deleted",
vbInformation + vbOKOnly, "Information"
                Call ref_rec

                If Not rsdept.EOF Then
                    rsdept.MoveNext
                End If

                If rsdept.EOF Then
                    If rsdept.RecordCount > 0 Then
                        rsdept.MoveLast
                    End If
                End If

                Call get_rec
                Call cmb_rec

                Set MSHFlexGrid1.DataSource = rsdept
                MSHFlexGrid1.Refresh

                ena_dis_head ("D")
            
```



```

        ena_dis_cntrl ("DIS")
    Exit Sub
End If
''''''''''''''''

conn.Execute ("delete from departments where pkey="" & lblpkey.Caption &
""")
rsdept.Requery

Call ref_rec
End If

If Not rsdept.EOF Then
    rsdept.MoveNext
End If
If rsdept.EOF Then

    If rsdept.RecordCount > 0 Then
        rsdept.MoveLast
    End If
End If

Call get_rec
Call cmb_rec

Set MSHFlexGrid1.DataSource = rsdept
MSHFlexGrid1.Refresh

ena_dis_head ("D")
ena_dis_cntrl ("DIS")
'-----
End If
Exit Sub
errlabel:
    If Err.Number = -2147217873 Then
        MsgBox "Record can't be deleted since there are child records associated to
current record" & Err.Description, vbInformation + vbOKOnly, "Information"
    Else
        MsgBox Err.Description
    End If
End Sub

Private Sub cmdedit_Click()
On Error GoTo errlabel
cstat = "EDIT"

```

```

prev_bkmark = rsdept.Bookmark

ena_dis_head ("E")
ena_dis_cntrl ("EDIT")

Call get_rec

uval = txtdept.Text ' uval is a global text variable used to store unique field's
value for comparision while saving
pmkey = lblpkey.Caption

cmbhead.Enabled = False
txtdept.SetFocus

Call cmb_rec
cmbdept.Enabled = False

Exit Sub
errlabel:
    MsgBox Err.Description
End Sub
Private Sub ref_rec()
On Error GoTo errlabel
Dim con As Control

For Each con In Controls
    If TypeOf con Is TextBox Then
        con.Text = ""
    End If
Next

Exit Sub
errlabel:
    MsgBox Err.Description
End Sub
Private Sub get_rec()
On Error GoTo errlabel
If rsdept.RecordCount <= 0 Then
    lblrecno.Caption = 0
    Exit Sub
End If
lblpkey.Caption = rsdept.Fields("pkey")
cmbhead.Text = rsdept.Fields("head")
cmbhkey.Text = rsdept.Fields("hkey")
cmbhead.Text = get_key(Val(cmbhkey.Text))
txtdept.Text = rsdept.Fields("dname")

```



```

    lblrecno.Caption = rsdept.Bookmark
Exit Sub
errlabel:
    MsgBox Err.Description
End Sub
Private Sub ena_dis_cntrl(c_stat As String)
    Select Case c_stat

        Case "ADD"
            cmdadd.Enabled = False
            cmddelete.Enabled = False
            cmdedit.Enabled = False
            cmdsave.Enabled = True
            cmdcancel.Enabled = True
            cmdback.Enabled = False
            stat = "ENTRY"

        Case "EDIT"
            cmdadd.Enabled = False
            cmddelete.Enabled = False
            cmdedit.Enabled = False
            cmdsave.Enabled = True
            cmdcancel.Enabled = True
            cmdback.Enabled = False
            stat = "ENTRY"

        Case "DIS"
            If rsdept.RecordCount > 0 Then
                cmdadd.Enabled = True
                cmddelete.Enabled = True
                cmdedit.Enabled = True
                cmdsave.Enabled = False
                cmdcancel.Enabled = False
                cmdback.Enabled = True
            Else
                cmdadd.Enabled = True
                cmddelete.Enabled = False
                cmdedit.Enabled = False
                cmdsave.Enabled = False
                cmdcancel.Enabled = False
                cmdback.Enabled = True
            End If
            stat = "FORM"
    End Select
End Sub
Private Sub ena_dis_head(ed As String)
    If ed = "D" Then

```

```

        txtdept.Enabled = False
        cmbhead.Enabled = False
        cmbhkey.Enabled = False
    Else
        txtdept.Enabled = True
        cmbhead.Enabled = True
        cmbhkey.Enabled = True
    End If
End Sub

Private Sub cmdsave_Click()
    On Error GoTo errlabel
    flg_nxt = True

    rsdept.Requery

    '=====checking validations=====
    If flg_nxt = True Then
        Call txtdept_myvalidations
    Else
        Exit Sub
    End If

    If flg_nxt = False Then
        Exit Sub
    End If

    '=====
    If cstat = "ADD" Then
        rsdept.AddNew
    Else
        '++++++
        Set rsbmark = rsdept.Clone
        rsbmark.Filter = "pkey =" & pmkey

        If Not rsbmark.EOF Or Not rsbmark.BOF Then
            rsdept.Bookmark = rsbmark.Bookmark
        Else
            MsgBox "Record not Found or Record has already been Delcted",
vbInformation + vbOKOnly, "Information"
            Call ref_rec
            Call get_rec
            Set MSHFlexGrid1.DataSource = rsdept
            MSHFlexGrid1.Refresh

            ena_dis_head ("D")
            ena_dis_cntrl ("DIS")
        End If
    End If
End Sub

```



```

        cmb_rec

        cmbdept.Enabled = True
        cmdadd.SetFocus
        Exit Sub
    End If
    '+++++
End If

rsdept.Fields("pkey") = lblpkey.Caption
rsdept.Fields("head") = cmbhead.Text
rsdept.Fields("hkey") = cmbhkey.Text
rsdept.Fields("dname") = UCase(txtdept.Text)

rsdept.Update

Call get_rec

Set MSHFlexGrid1.DataSource = rsdept
MSHFlexGrid1.Refresh

ena_dis_head ("D")
ena_dis_cntrl ("DIS")

cmb_rec

cmbdept.Enabled = True
cmdadd.SetFocus
Exit Sub
errlabel:
    MsgBox Err.Description
End Sub
Private Sub cmb_rec()
    Dim i, recnt As Long
    cmbdept.Clear

    If rsfind.State = adStateOpen Then
        rsfind.Close
        Set rsfind = Nothing
    End If
    Set rsfind = rsdept.Clone

    If rsfind.RecordCount > 0 Then
        rsfind.MoveLast
        recnt = rsfind.RecordCount
    End If

```

```

rsfind.MoveFirst
For i = 0 To recnt - 1
    cmbdept.AddItem rsfind.Fields("dname") 'rsfind.Fields("hkey") & " - " &
rsfind.Fields("dname")
    rsfind.MoveNext
Next i
End If
End Sub
Private Sub Form_Activate()

    lbl_dt.Caption = Format(Date, "dd-mm-yyyy")
    lbl_tm.Caption = Time

    Call cmb_rec

    mdiproduction.CenterForm frmdepartment
    mdiproduction.universal = UCase(Me.Name)
    mdiproduction.StatusBar1.Panels(1).Text = UCase(Me.Caption)
End Sub
Private Sub Form_Load()
On Error GoTo errlabel
Dim i, rent As Long
cmbhead.Clear
If rsdept.State = adStateOpen Then
    rsdept.Close
    Set rsdept = Nothing
End If
rsdept.Open "select * from departments order by pkey", conn, adOpenDynamic,
adLockOptimistic

If rsgetkey.State = adStateOpen Then
    rsgetkey.Close
    Set rsgetkey = Nothing
End If

rsgetkey.Open "select * from heads order by pkey", conn, adOpenDynamic,
adLockOptimistic
'+++++
With rshname

    If .State = adStateOpen Then
        .Close
        Set rshname = Nothing
    End If
    .Open "select * from heads", conn, adOpenDynamic, adLockOptimistic

```



```

If .RecordCount > 0 Then
    .MoveLast
    rcnt = .RecordCount
    .MoveFirst
    For i = 0 To rcnt - 1
        cmbhead.AddItem .Fields("head")
        cmbhkey.AddItem .Fields("pkey")
    .MoveNext
    Next i
End If
End With
'+++++
Call get_rec

Set MSHFlexGrid1.DataSource = rsdept
MSHFlexGrid1.Refresh

ena_dis_head ("D")
ena_dis_cntrl ("DIS")

Exit Sub
errlabel:
    MsgBox Err.Description
End Sub
Private Sub Form_Unload(Cancel As Integer)
On Error GoTo errlabel
    If rsdept.State = adStateOpen Then
        rsdept.Close
        Set rsdept = Nothing
    End If

    Unload Me
    mdiproduction.universal = "NULL"
    mdiproduction.StatusBar1.Panels(1).Text = UCase("PRO TRACK VERSION
1.0")
Exit Sub
errlabel:
    MsgBox Err.Description
End Sub
Private Sub txtdept_myvalidations()
On Error GoTo errlabel
    Dim k, ecnt As Long

    If Trim(txtdept.Text) = "" Then
        MsgBox "Field Department Cannot Be Empty", vbInformation + vbOKOnly,
        "Information"

```

```

txtdept.SetFocus
flg_nxt = False
Exit Sub
End If
'+++++ DUPLICATE CHECK +++++
'If cstat = "ADD" Then

If UCase(uval) <> UCase(txtdept.Text) Then

Set rsdepttmp = rsdept.Clone
With rsdepttmp
If .RecordCount > 0 Then
.MoveLast
ecnt = .RecordCount
.MoveFirst
For k = 0 To ecnt - 1
If UCase(.Fields("dname")) = UCase(txtdept.Text) And
UCase(.Fields("hkey")) = UCase(cmbhead.Text) Then
MsgBox "Deaprtment " & UCase(txtdept.Text) & " under head " &
cmbhead.Text & " Already Exist.....", vbCritical + vbOKOnly, "Warning"
txtdept.SetFocus
flg_nxt = False
txtdept.SelStart = 0
txtdept.SelLength = Len(txtdept.Text)
Exit Sub
End If
.MoveNext
Next k
End If
End With
End If
uval = ""
'End If
'+++++
Exit Sub
errlabel:
MsgBox Err.Description
End Sub
Private Sub txtdept_KeyPress(KeyAscii As Integer)
If KeyAscii = 13 Then
KeyAscii = 0
SendKeys "{tab}"
End If
End Sub

```


Chapter 6.3

Frmemps

Option Explicit

Dim rsemps As New ADODB.Recordset

Dim rshname As New ADODB.Recordset

Dim rshkey As New ADODB.Recordset

Dim rsempstmp As New ADODB.Recordset

Dim rsfind As New ADODB.Recordset

Dim rsdesig As New ADODB.Recordset

Dim rsdesigkey As New ADODB.Recordset

Dim rsdept As New ADODB.Recordset

Dim rsdeptkey As New ADODB.Recordset

Dim stat, cstat As String

Public Sub grid_data() ' to show data in grid

Dim rsdata As New ADODB.Recordset

Dim rsgrid1 As New ADODB.Recordset

Dim rsgrid2 As New ADODB.Recordset

Dim rsgrid3 As New ADODB.Recordset

Dim cnt, i As Long

With rsdata

```
.Fields.Append "pkey", adVarChar, 100, adFldIsNullable Or adFldMayBeNull
.Fields.Append "empid", adVarChar, 100, adFldIsNullable Or
adFldMayBeNull
.Fields.Append "ename", adVarChar, 100, adFldIsNullable Or
adFldMayBeNull
.Fields.Append "head", adVarChar, 100, adFldIsNullable Or adFldMayBeNull
.Fields.Append "department", adVarChar, 100, adFldIsNullable Or
adFldMayBeNull
.Fields.Append "designation", adVarChar, 100, adFldIsNullable Or
adFldMayBeNull
.Fields.Append "emplevel", adVarChar, 100, adFldIsNullable Or
adFldMayBeNull
.Fields.Append "password", adVarChar, 100, adFldIsNullable Or
adFldMayBeNull
.Fields.Append "status", adVarChar, 100, adFldIsNullable Or adFldMayBeNull
.Fields.Append "doj", adVarChar, 100, adFldIsNullable Or adFldMayBeNull
```

.Open

End With

With rsgrid1

If .State = adStateOpen Then


```

.Close
Set rsgrid1 = Nothing
End If
.Open "select h.head from heads h,emps e where h.pkey=e.hkey", conn,
adOpenDynamic, adLockOptimistic

End With

With rsgrid2
If .State = adStateOpen Then
.Close
Set rsgrid2 = Nothing
End If

.Open "select d.dname from departments d,emps e where d.pkey=e.deptkey",
conn, adOpenDynamic, adLockOptimistic

End With

With rsgrid3
If .State = adStateOpen Then
.Close
Set rsgrid3 = Nothing
End If

.Open "select d.desig,e.pkey,e.empid,e.ename,e.emplevel,e.password,e.status,e.doj
from designations d,emps e where d.pkey=e.desigkey", conn, adOpenDynamic,
adLockOptimistic

i = rsgrid3.Fields("pkey")

.MoveLast
cnt = .RecordCount
.MoveFirst
rsgrid1.MoveFirst
rsgrid2.MoveFirst
For i = 0 To cnt - 1
rsdata.AddNew
rsdata.Fields("pkey") = rsgrid3.Fields("pkey")
rsdata.Fields("empid") = rsgrid3.Fields("empid")
rsdata.Fields("ename") = rsgrid3.Fields("ename")
rsdata.Fields("head") = rsgrid1.Fields("head")
rsdata.Fields("department") = rsgrid2.Fields("dname")
rsdata.Fields("designation") = rsgrid3.Fields("desig")
rsdata.Fields("emplevel") = rsgrid3.Fields("emplevel")

```



```

rsdata.Fields("password") = rsgrid3.Fields("password")
rsdata.Fields("status") = rsgrid3.Fields("status")
rsdata.Fields("doj") = rsgrid3.Fields("doj")

.MoveNext
rsgrid1.MoveNext
rsgrid2.MoveNext
Next i
End With
Set MSHFlexGrid1.DataSource = rsdata
MSHFlexGrid1.Refresh
End Sub
Function get_head_key(a As Long)
Dim head As String
If IsEmpty(a) = True Then
Exit Function
Else
rshkey.MoveFirst
While rshkey.EOF <> True
If a = rshkey.Fields("pkey") Then
head = rshkey.Fields("head")
GoTo label
End If
rshkey.MoveNext
Wend
label:
get_head_key = head
End If
End Function
Function get_dept_key(b As Long)
Dim dept As String
If IsEmpty(b) = True Then
Exit Function
Else
rsdeptkey.MoveFirst
While rsdeptkey.EOF <> True
If b = rsdeptkey.Fields("pkey") Then
dept = rsdeptkey.Fields("dname")
GoTo label
End If
rsdeptkey.MoveNext
Wend
label:
get_dept_key = dept
End If
End Function

```

```

Function get_desig_key(c As Long)
Dim desig As String
If IsEmpty(c) = True Then
    Exit Function
Else
    rsdesigkey.MoveFirst
    While rsdesigkey.EOF <> True
        If c = rsdesigkey.Fields("pkey") Then
            desig = rsdesigkey.Fields("desig")
            GoTo label
        End If
        rsdesigkey.MoveNext
    Wend
label:
get_desig_key = desig
End If
End Function

Private Sub cmbdept_Click()
cmbdeptkey.ListIndex = cmbdept.ListIndex
End Sub

Private Sub cmbdesig_Click()
cmbdesigkey.ListIndex = cmbdesig.ListIndex
End Sub

Private Sub cmddelete_Click()
On Error GoTo errlabel
Dim ans As String

ans = MsgBox(" Sure To Delete ", vbQuestion + vbYesNo, " Confirmation")

If ans = vbNo Then
    Exit Sub
Else
    '-----
    pmkey = lblpkey.Caption

    rsemps.Requery
    If Not rsemps.EOF Or Not rsemps.BOF Then
        ""verifying existence of the record in the table ""
        Set rsbmark = rsemps.Clone
        rsbmark.Filter = "pkey =" & pmkey

        If Not rsbmark.EOF Or Not rsbmark.BOF Then
            rsemps.Bookmark = rsbmark.Bookmark
        End If
    End If
End If
End Sub

```



```

Else
    MsgBox "Record Not Found or Record has already been Deleted",
vbInformation + vbOKOnly, "Information"
    Call ref_rec

    If Not rsemps.EOF Then
        rsemps.MoveNext
    End If

    If rsemps.EOF Then
        If rsemps.RecordCount > 0 Then
            rsemps.MoveLast
        End If
    End If

    Call get_rec
    cmb_rec

    Set MSHFlexGrid1.DataSource = rsemps
    MSHFlexGrid1.Refresh

    ena_dis_head ("D")
    ena_dis_cntrl ("DIS")
    Exit Sub
End If
'~~~~~
conn.Execute ("delete from emps where pkey='" & lblpkey.Caption & "'")
rsemps.Requery

    Call ref_rec
End If

    If Not rsemps.EOF Then
        rsemps.MoveNext
    End If
    If rsemps.EOF Then

        If rsemps.RecordCount > 0 Then
            rsemps.MoveLast
        End If
    End If

    Call get_rec
    Call cmb_rec

```

```

Set MSHFlexGrid1.DataSource = rsemps
MSHFlexGrid1.Refresh

ena_dis_head ("D")
ena_dis_cntrl ("DIS")
'-----
End If
Exit Sub
errlabel:
If Err.Number = -2147217873 Then
    MsgBox "Record can't be deleted since there are child records associated to
current record", vbInformation + vbOKOnly, "Information"
Else
    MsgBox Err.Description
End If
End Sub

Private Sub cmdedit_Click()
On Error GoTo errlabel
cstat = "EDIT"
prev_bkmark = rsemps.Bookmark

ena_dis_head ("E")
ena_dis_cntrl ("EDIT")

Call get_rec

    uval = txttempid.Text ' uval is a global text variable used to store unique field's
value for comparision while saving
    pmkey = lblpkey.Caption

    txttempid.SetFocus

    Call cmb_rec
    cmbempid.Enabled = False

Exit Sub
errlabel:
    MsgBox Err.Description
End Sub
Private Sub cmdsave_Click()
On Error GoTo errlabel
flg_nxt = True

rsemps.Requery

```



```

'=====checking validations=====
If flg_nxt = True Then
    Call txttempid_myvalidations
Else
    Exit Sub
End If

If flg_nxt = False Then
    Exit Sub
End If

If cmbstatus.Text = "" Then
    MsgBox "Field Status cannot be Empty", vbInformation + vbOKOnly,
    "Information"
    cmbstatus.SetFocus
    Exit Sub
End If

If cmbhead.Text = "" Then
    MsgBox "Field Head cannot be Empty", vbInformation + vbOKOnly,
    "Information"
    cmbhead.SetFocus
    Exit Sub
End If

If cmbdept.Text = "" Then
    MsgBox "Field Department cannot be Empty", vbInformation + vbOKOnly,
    "Information"
    cmbdept.SetFocus
    Exit Sub
End If

If cmblevels.Text = "" Then
    MsgBox "Field Employee Level cannot be Empty", vbInformation +
    vbOKOnly, "Information"
    cmblevels.SetFocus
    Exit Sub
End If

If cmbdesig.Text = "" Then
    MsgBox "Field Designation cannot be Empty", vbInformation + vbOKOnly,
    "Information"
    cmbdesig.SetFocus
    Exit Sub
End If
    If cstat = "ADD" Then

```

```

rsemps.AddNew
Else
    Set rsbmark = rsemps.Clone
    rsbmark.Filter = "pkey =" & pmkey

    If Not rsbmark.EOF Or Not rsbmark.BOF Then
        rsemps.Bookmark = rsbmark.Bookmark
    Else
        MsgBox "Record not Found or Record has already been Deleted",
vbInformation + vbOKOnly, "Information"
        Call ref_rec
        Call get_rec
        Set MSHFlexGrid1.DataSource = rsemps
        MSHFlexGrid1.Refresh

        ena_dis_head ("D")
        ena_dis_cntrl ("DIS")

        cmbempid.Enabled = True
        Call cmb_rec

        cmdadd.SetFocus
        Exit Sub
    End If
End If

With rsemps

.Fields("pkey") = lblpkey.Caption
.Fields("empid") = UCase(txttempid.Text)
.Fields("ename") = StrConv(txtename.Text, vbProperCase)

.Fields("hkey") = cmbhkey.Text
.Fields("deptkey") = cmbdeptkey.Text
.Fields("desigkey") = cmbdesigkey.Text

.Fields("emplevel") = cmblevels.Text
.Fields("password") = txtpwd1.Text
.Fields("status") = cmbstatus.Text
.Fields("doj") = Format(dtpdoj.Value, "mm/dd/yyyy")
.Update
End With
Call get_rec
Set MSHFlexGrid1.DataSource = rsemps
MSHFlexGrid1.Refresh

```



```

ena_dis_head ("D")
ena_dis_cntrl ("DIS")

cmbempid.Enabled = True
Call cmb_rec

cmdadd.SetFocus
Exit Sub
errlabel:
  MsgBox Err.Description
End Sub
Private Sub cmb_rec()
  Dim i, recnt As Long
  cmbempid.Clear
  If rsfind.State = adStateOpen Then
    rsfind.Close
    Set rsfind = Nothing
  End If

  Set rsfind = rsemps.Clone

  If rsfind.RecordCount > 0 Then
    rsfind.MoveLast
    recnt = rsfind.RecordCount
    rsfind.MoveFirst
    For i = 0 To recnt - 1
      cmbempid.AddItem rsfind.Fields("empid")
    rsfind.MoveNext
    Next i
  End If
End Sub

Private Sub Form_Load()
  On Error GoTo errlabel
  Dim i, rent As Long

  cmbhead.Clear
  cmbhkey.Clear

  If rsemps.State = adStateOpen Then
    rsemps.Close
    Set rsemps = Nothing
  End If

  rsemps.Open "select * from emps", conn, adOpenDynamic, adLockOptimistic

```

'+++++

With rshname

If .State = adStateOpen Then

.Close

Set rshname = Nothing

End If

.Open "select * from heads", conn, adOpenDynamic, adLockOptimistic

If .RecordCount > 0 Then

.MoveLast

rent = .RecordCount

.MoveFirst

For i = 0 To rent - 1

cmbhead.AddItem .Fields("head")

cmbhkey.AddItem .Fields("pkey")

.MoveNext

Next i

End If

End With

If rshkey.State = adStateOpen Then

rshkey.Close

Set rshkey = Nothing

End If

rshkey.Open "select * from heads order by pkey", conn, adOpenDynamic,

adLockOptimistic

cmbdesig.Clear

cmbdesigkey.Clear

With rsdesig

If .State = adStateOpen Then

.Close

Set rsdesig = Nothing

End If

.Open "select * from designations", conn, adOpenDynamic, adLockOptimistic

If .RecordCount > 0 Then

.MoveLast

rent = .RecordCount

.MoveFirst

For i = 0 To rent - 1


```

        cmbdesig.AddItem .Fields("desig")
        cmbdesigkey.AddItem .Fields("pkey")
        .MoveNext
    Next i
End If
End With

If rsdesigkey.State = adStateOpen Then
    rsdesigkey.Close
    Set rsdesigkey = Nothing
End If

rsdesigkey.Open "select * from designations order by pkey", conn,
adOpenDynamic, adLockOptimistic

Call get_rec
Set MSHFlexGrid1.DataSource = rsemps
MSHFlexGrid1.Refresh

ena_dis_head ("D")
ena_dis_cntrl ("DIS")

Exit Sub
errlabel:
    MsgBox Err.Description
End Sub
Private Sub Form_Unload(Cancel As Integer)
On Error GoTo errlabel
    If rsemps.State = adStateOpen Then
        rsemps.Close
        Set rsemps = Nothing
    End If

    Unload Me
    mdiproduction.universal = "NULL"
    mdiproduction.StatusBar1.Panels(1).Text = UCase("PRO TRACK VERSION
1.0")
Exit Sub
errlabel:
    MsgBox Err.Description
End Sub
Private Sub txttempid_myvalidations()
On Error GoTo errlabel
Dim k, ecnt As Long

If Trim(txttempid.Text) = "" Then

```

```

    MsgBox "Field Employee ID Cannot Be Empty", vbInformation + vbOKOnly,
    "Information"
    txttempid.SetFocus
    flg_nxt = False
    Exit Sub
End If

+++++ DUPLICATE CHECK +++++
'If cstat = "ADD" Then

If UCase(uval) <> UCase(txttempid.Text) Then

Set rsempstmp = rsemps.Clone
With rsempstmp
If .RecordCount > 0 Then
    .MoveLast
    ecnt = .RecordCount
    .MoveFirst
    For k = 0 To ecnt - 1
        If UCase(.Fields("empid")) = UCase(txttempid.Text) Then
            MsgBox "Employee ID Already Exist.....", vbCritical + vbOKOnly,
            "Warning"
            txttempid.SetFocus
            flg_nxt = False
            txttempid.SelStart = 0
            txttempid.SelLength = Len(txttempid.Text)
            Exit Sub
        End If
    .MoveNext
    Next k
End If
End With
End If
uval = ""
'End If
Exit Sub
errlabel:
    MsgBox Err.Description
End Sub
Private Sub txtpwd1_KeyPress(KeyAscii As Integer)
If KeyAscii = 13 Then
    KeyAscii = 0
    SendKeys "{tab}"
End If
End Sub

```


Chapter 6.4

Module1

```
Public conn As New ADODB.Connection
Public accesscon As New ADODB.Connection
Public constr As String
Public rsbmark As New ADODB.Recordset
Public pmkey, prev_bkmark As Long
Public logempkey, logemplevel, flg, logeid, pwd, loginstatus, uval, logename As String
Public frmimportdata_st, frmexportdata_st, frmchangepwd_st,
frmviewuserdata_st, frmtaskstatus_st, frmprpttasks_st, wrkasg_st, head_st,
tasks_st, desig_st, dept_st, emp_st, dwrk_st As Boolean
Public flg_nxt As Boolean
Public tbl_name, qrystr As String
'variables declaration part

Public Sub opencon()
On Error GoTo errlabel

    If conn.State = adStateOpen Then
        conn.Close
    End If
    conn.CursorLocation = adUseClient

    'conn.Open "Provider=MSDAORA.1;User
ID=production001;password=production001;Data Source=bposid;Persist Security
Info=False"
    conn.Open "Provider=MSDAORA.1;User
ID=production;password=production;Data Source=bposid;Persist Security
Info=False"
    Exit Sub
errlabel:
    MsgBox Err.Description & ", Open Connection Method of Module"
End Sub

Public Sub closecon()
On Error GoTo errlabel
If conn.State = adStateOpen Then
    conn.Close
End If
Set conn = Nothing
Exit Sub
```

```

errlabel:
    MsgBox Err.Description
End Sub
Public Sub accessconnect()
'On Error GoTo errlabel
With accesscon
    If .State = adStateOpen Then
        .Close
        Set accesscon = Nothing
    End If

    .Open "Provider=Microsoft.Jet.OLEDB.4.0;Data Source=" & constr &
    ";Persist Security Info=False"
    .CursorLocation = adUseClient
End With
Exit Sub
errlabel:
    MsgBox Err.Description
End Sub
Public Sub accessconclose()
On Error GoTo errlabel
With accesscon
    If .State = adStateOpen Then
        .Close
    End If
End With
    Set accesscon = Nothing

Exit Sub
errlabel:
    MsgBox Err.Description
End Sub

```


Chapter 7

Bibliography

Websites

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- <http://www.microsoft.com>
- <http://www.programmer2programmer.net>
- <http://www.codeproject.com>
- <http://www.msdn.com>
- <http://www.vb123.com>
- <http://www.vbcode.com>
- <http://www.sqltuner.com>

Chapter 7.1

Books

- Mastering Visual Basic 6 (Paperback)
 - Mastering Visual Basic .NET (Paperback)
 - Database Development in Visual Basic
 - Visual Basic Black Book (Paperback)
- SQL Bible, 2nd Edition (Paperback)

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