SAP

Project report submitted in partial fulfillment of the requirement for the degree of

BACHELOR OF TECHNOLOGY

IN

INFORMATION TECHNOLOGY

By

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WAKNAGHAT

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DECLARATION

I hereby declare that the work presented in this report entitled **" SAP "** in partial fulfillment of the requirements for the award of the degree of **Bachelor of Technology** in **Information Technology** submitted in the department of Computer Science & Engineering and Information Technology **,** Jaypee University of Information Technology Waknaghat is an authentic record of my own work carried out under the supervision of **"DXC Technology" .** I have not submitted this work elsewhere for any other degree or diploma.

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ACKNOWLEDGEMENT

I would like to share my sincere gratitude to my company **DXC Technology** for providing their guidance throughout. Their dynamism, vision, sincerity and motivation have deeply inspired me. They have taught me the methodology to carry out the project work and to present it as clearly as possible. It was a great privilege and honor to work and study under their guidance. I am also thankful to all those who have assisted us by supplying the requisite help.

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ABSTRACT

Pre-onboarding training is an essential part of a candidate's life as it paves a path for a smooth transformation from academic life to corporate life. A well-framed and executed training with continuous evaluation helps a lot in developing a professional attitude. It develops an ability to create an approach for problem-solving from an industrial point of view. This training, titled DXC Early Career Professional Program was aimed at giving the candidates essential motivation, skills, teamwork, and technical knowledge in a proper corporate environment.

During 45 days of training from professionals at Manipal edutech, I was taught about the application, usage, and working of SAP servers. A number of assignments and assessments from trainers as well as from the third party made the training more competitive and interesting. As a result, I achieved most of it, which will help the company while handling the projects related to SAP EAO.

This report is made on the learnings obtained from the same training, which contains a total of six chapters, all about the technical details and working of SAP.

The first chapter aims at introducing the SAP ERP, which includes its functions, advantages, disadvantages, purpose of use, etc.

The second chapter aims mostly at the details about the modules of SAP, which includes different types of SAP modules along with their respective functions and roles at different aspects.

The third chapter focuses on introducing the reader to the SAP architecture, which includes information about various layers within the SAP, their roles and benefits as well as the Tcodes for the execution of various tasks related to the respective layers.

The fourth chapter talks mostly about system monitoring, which includes the pieces of information about different Tcodes used for system monitoring, their usage, and the process of application.

The fifth chapter of this report focuses on the remote function cell, which includes the procedure of its formation, types of RFCs its benefits.

The sixth and last chapter of this report focuses on the Transport Management System, which includes its introduction, types, and operating tools.

This whole training and report drafting gave me a good experience in SAP and its components which will be a major addition to my skill set and will lead to a better performance at corporate levels.

CHAPTER-1
INTRODUCTION

1.1 INTRODUCTION

SAP which is stands for Systems Applications and Products in Data Processing. Basically SAP is the another name of Enterprise Resource Planning (ERP). SAP Software is an international European brand, founded in 1972 by Wellenreuther, Hopp, Hector, Plattner, and Tschira. They create software solutions to manage business operations and customer relationships.
SAP is number 1 in the ERP market. SAP has more than 140,000 centers worldwide, more than 25 business solutions and more than 75,000 customers in 120 countries since 2010. Other competitive SAP Software products on the market are Oracle, Microsoft Dynamics, etc.

FIGURE 1.1 SAP LOGO

1.1.1 INTRODUCTION TO ERP

Enterprise Resource Planning (ERP) is a software that's built to organizations belonging to different industrial sectors, no matter their size and strength.
The ERP package is designed to support and integrate almost every functional area of business processes such as procurement of goods and services, sales and distribution, finance, accounting, labor, manufacturing, production planning, asset management and asset management.

FIGURE 1.2 PLANNING AND EXECUTION

1.1.2 FUNCTIONS OF ERP

Following are the function that are performed by an ERP system:

1. It helps to increase the decision-making process with accuracy.
2. Identifies performance risks to improve management.
3. Protects the data from attacker to breach the security system.
4. Supports integrated business process within an organization.
5. It improves financial planning and assists the implementation of organizational plans and strategies.
6. To increase the customer base it provide long term profit.

1.1.3 ADVANTAGES OF ERP

Following are the advantages of an ERP :

1. Allows to make improvement in financial planning.
2. It provide long term profit.
3. Provides synchronized data transfer between various workplaces such as sales, marketing, finance, manufacturing, labor, labor, etc.
4. It helps to keep track of everything that happens in the organization, from start to finish.
5. Provides real-time details whenever needed.
6. Save time and money.
7. Single data source and data sharing across all organizational units.

1.1.4 DISADVANTAGES OF ERP

Following are the disadvantages of an ERP :

1. Customization is not optional.
2. It will cost more if we switch from one ERP solution to another.
3. End users should be trained in their daily activities.
4. Sometimes critical business processes have to be redesign ERP solution.
5. The cost of complex integration can be very high.

1.2 BUISNESS PROCESS INTEGRATION

Every business, no matter what industry, requires connected systems with a smooth flow of information from one business process to another.
To overcome different challenges which allow organizations to connect for this BPI play the major role.

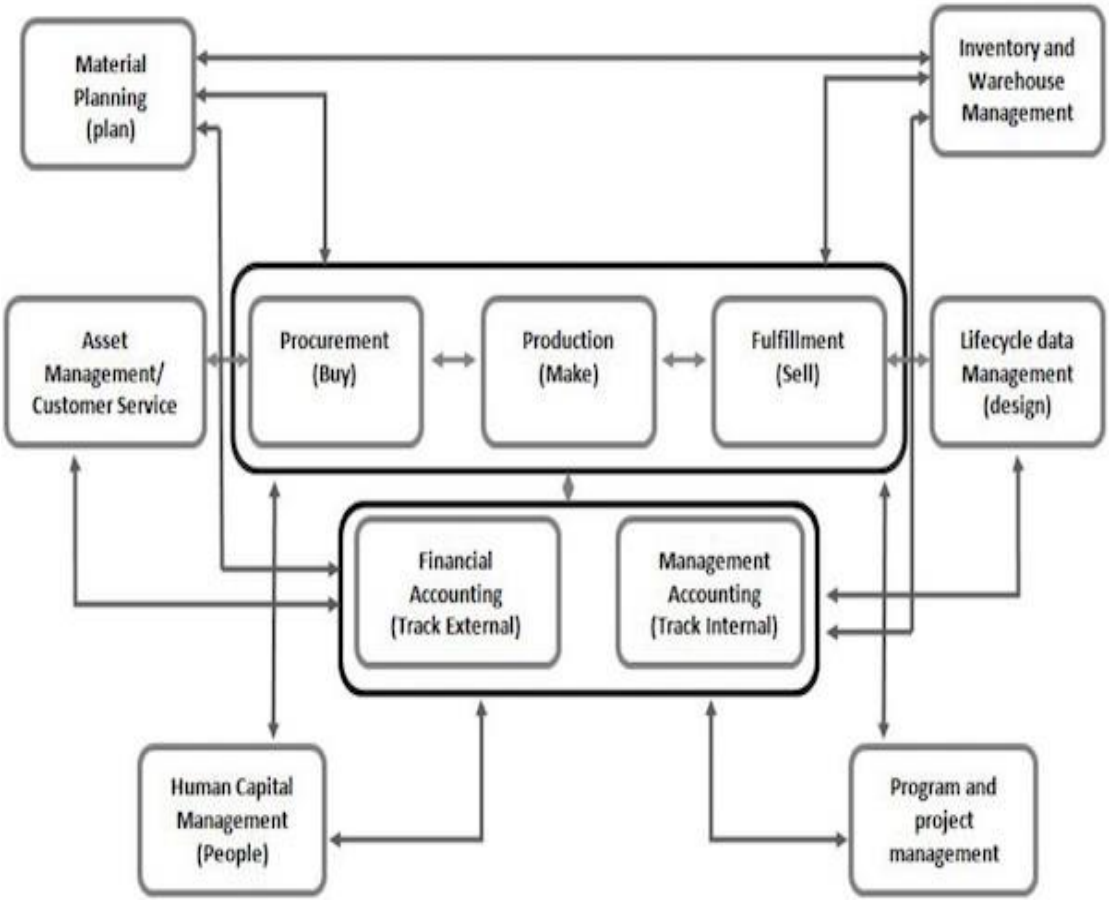

FIGURE 1.3 BUISNESS PROCESS INTEGRATION

1.3 BENEFITS OF SAP

1. The data as of now shows that about 80 % of SAP clients are from middle-class companies. Whether it is a large or small business SAP will provide best solutions for its clients.
2. Company has to pay only when or whatever needed because SAP allows them to use a public or private cloud. And when talking about business safety then everyone wants an expert so that they are always one step ahead of the attackers so SAP provides full protection for securing the data from such attacks or threats.
3. SAP always keeps itself updated. As it provides solutions that give power to the upcoming generation of business which is called in SAP language as "Future-proof Cloud ERP solutions".
4. The SAP has different features due to which it automatically automates the company's repetitive work which leads to reduce the use of resources as well as money and time.

1.5 SAP PROJECTS

1. Implementation : Configuration done according to the company's requirement.
2. Support : The main role of this are service and change request in the projects.
3. Roll out : Company wants to rollout any specific changes in different countries.
4. Upgrade : Moving to new versions from old versions.

CHAPTER-2
MODULES

2.1 MODULES WITHIN SAP

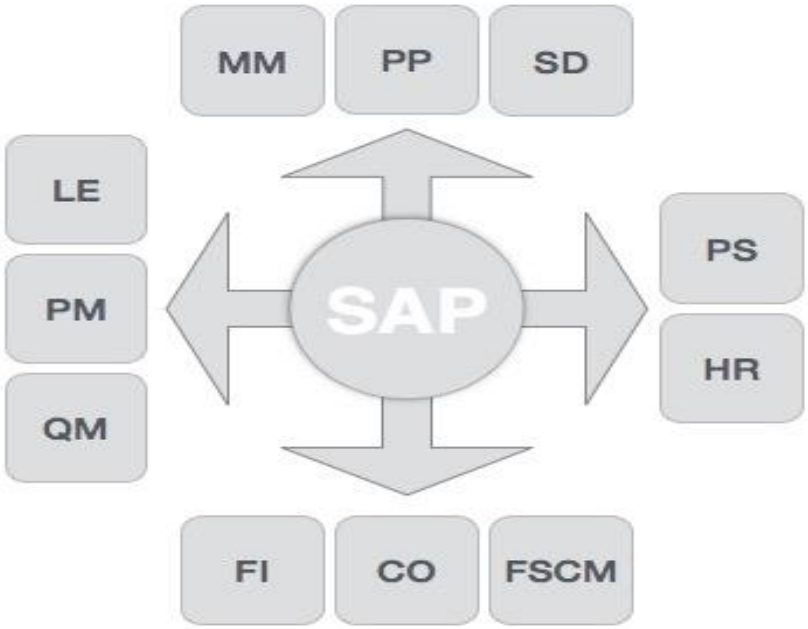

FIGURE 2.1 MODULES OF SAP

There are two types of modules - Functional and Technical modules.

FUNCTIONAL MODULES

1. FINANCE AND CONTROLLING (FICO):

Combining Finance Accounting and Controlling ERP modules leads to FICO.
SAP FI is an obligation to monitor the financial flow of data throughout the organization in a controlled manner and to compile all information for informed decisions and SAP CO module helps to coordinate, monitor, and improve all processes in organizations.

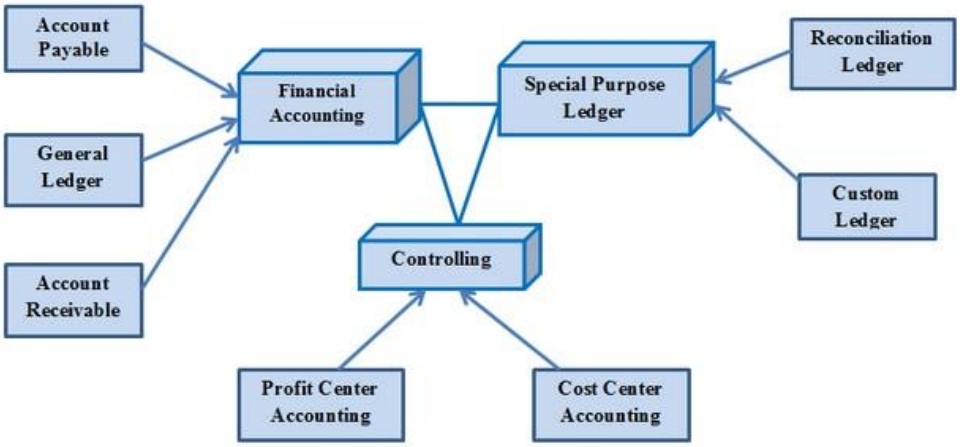

FIGURE 2.2 FINANCE AND CONTROLLING

2. SALES AND DISTRIBUTION MANAGEMENT (SD):

SAP SD is used by organizations to support the marketing and distribution activities of products and services, from ordering inquiries to delivery.

3. MATERIAL MANAGEMENT (MM):

Used by organizations to support delivery of goods through other modules such as asset management.

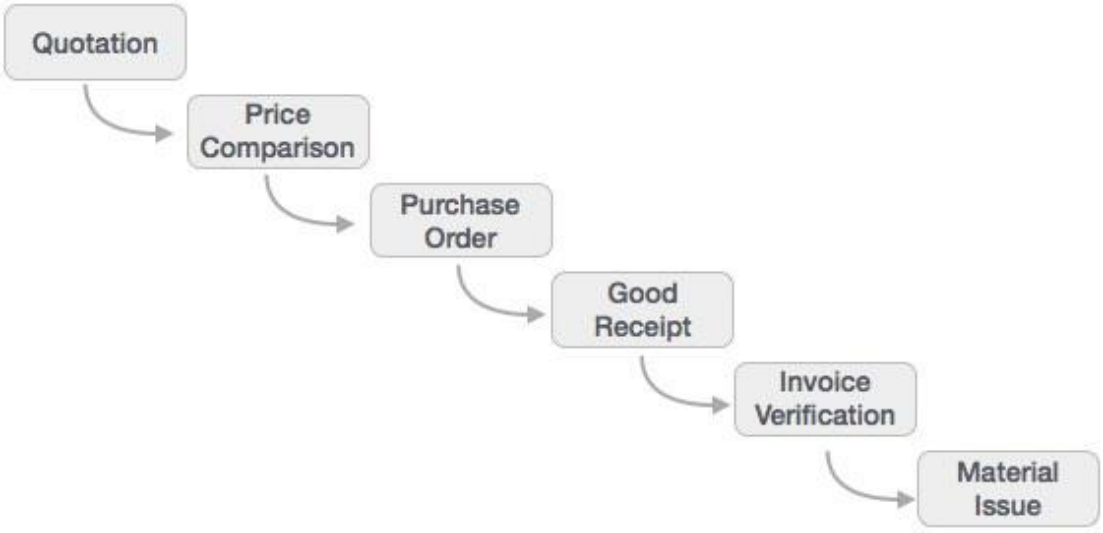

FIGURE 2.3 MATERIAL MANAGEMENT

4. LOGISTIC EXECUTION (LE):

It can be divided into two sub-modules, namely, delivery of goods and warehouse management. These two modules are integrated with sales and distribution, managing materials, and production and planning.

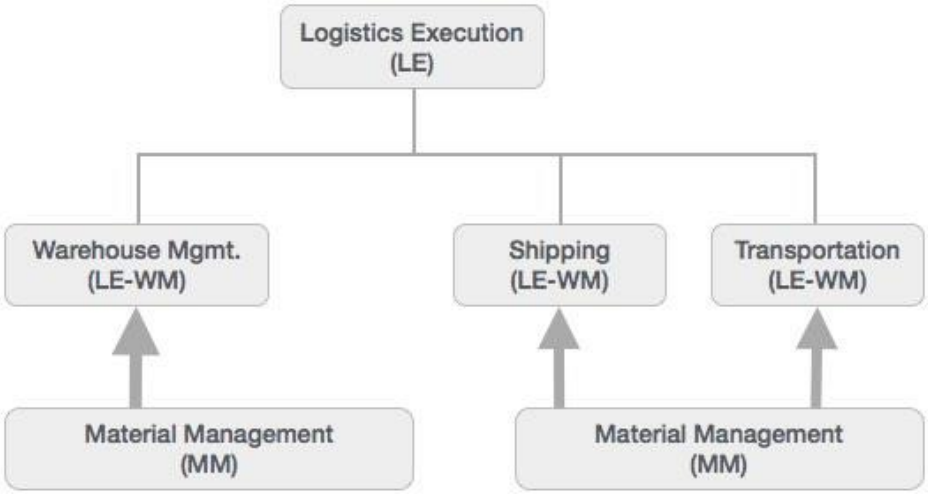

FIGURE 2.4 LOGISTIC EXECUTION

5. SUPPLIER RELATIONSHIP MANAGEMENT (SRM):

This module deals with the effective and efficient exchange of products and services between an organization and its suppliers. The main process covered in this section is the purchase of products such as specific items, indirect items and services.

6. CUSTOMER RELATIONSHIP MANAGEMENT (CRM):

CRM works with processes related to end-to-end clients. It is designed to capture internal data related to all corporate-related clients.

FIGURE 2.5 CUSTOMER RELATIONSHIP MANAGEMENT

7. HUMAN RESOURCE (HR):

FIGURE 2.6 HUMAN RESOURCE

TECHNICAL MODULES

1. SAP BASIS :

SAP Basis is a collection of programs and tools that serve as an interface with Database, operating system, agreements and other SAP modules like HCM, SD etc.

2. SAP ABAP :

The default programming language for SAP applications is Advanced Business Application Programming (ABAP) . One can also use Java as to code in SAP.

3. SAP HANA :

SAP HANA is a next-generation business platform. It speeds up analytics and usage on a single and memory platform.

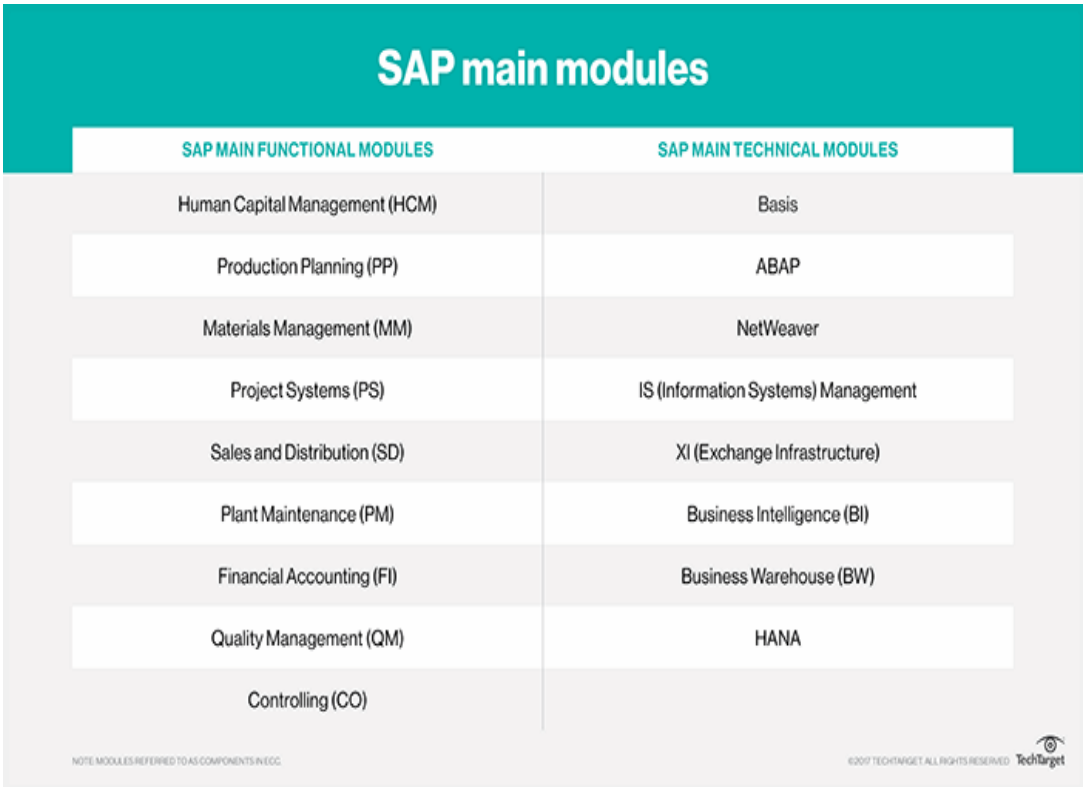

FIGURE 2.7 SAP MODULES

2.2 ROLE OF SAP BASIS

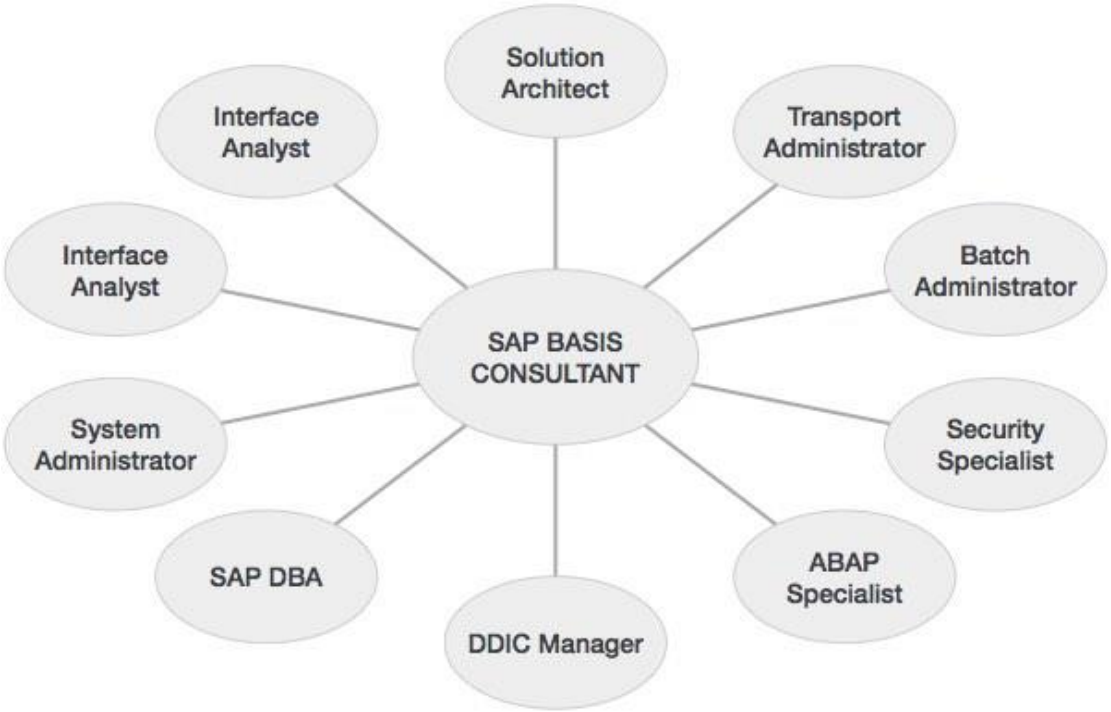

FIGURE 2.8 SAP BASIS ROLE

Task performed under these roles:

System Architect

- Sizing SAP systems
- Design SAP landscape

Transport Administrator

- Change control across SAP landscape

Batch Administrator

- Create and manage batch jobs across landscape

Security Specialist

- Design, monitor, and manage access to SAP landscape

ABAP Specialist

- Troubleshoot and tune ABAP programs
- Apply correction to program

DDIC Manager

- Manage changes to SAP data dictionary

SAP DBA

- Manage integrity of SAP database objects
- Manage backups and restore

System Administrator

- Maintain system health
- Monitor and tune system performance

Interface Analyst

- Analyze and Monitor
- Interfaces within SAP landscape

Solutions Specialist

- Installation of AP / Add-On
- Migrate OS / DB
- Upgrade SAP version
- Archiving of SAP Data

2.3 INSTANCES

There are basically three types of instances: Dialog, Central and Database.
In General we can say SAP System is the combination of dialog, central and database instance.
SAP System = Dialog + Central + Database Instance.

CHAPTER-3
ARCHITECTURE

3.1 SAP R/3 ARCHITECTURE

SAP R/3 architecture basically is a client server architecture where,
R - Real time system.
3 - 3 tier architecture.

This architecture is consist of three layers i.e, Presentation layer, Application layer and Database layer.

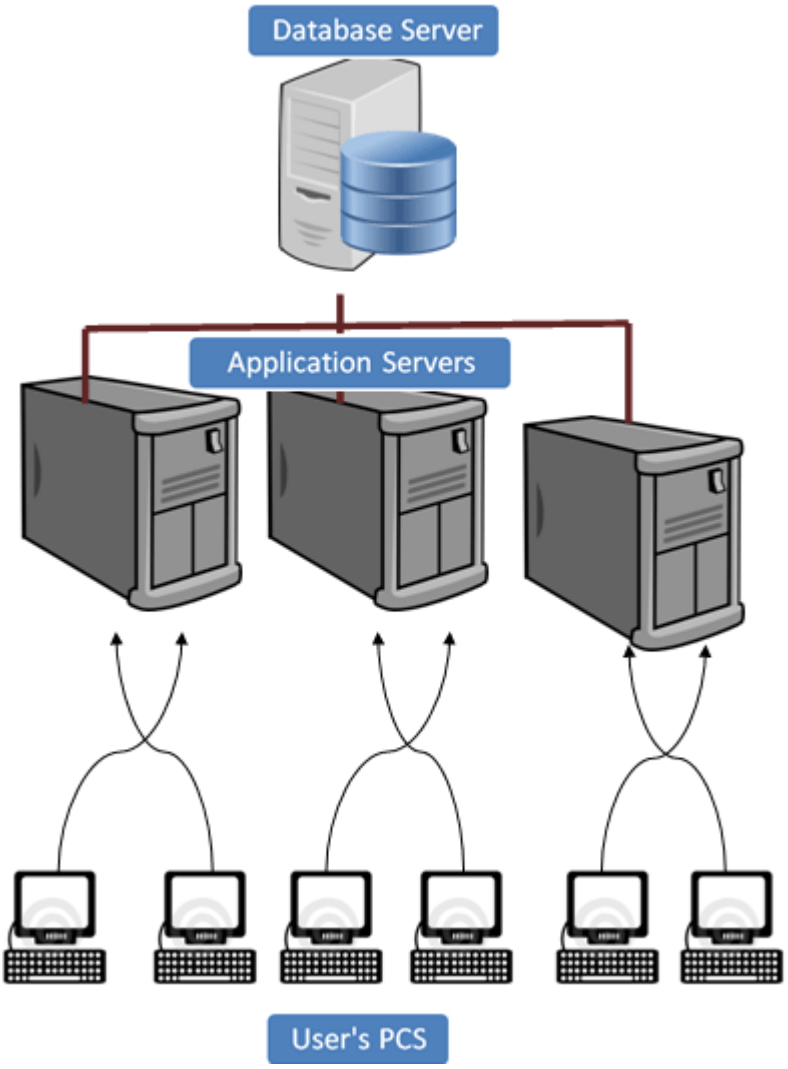

FIGURE 3.1 R/3 ARCHITECTURE

1. PRESENTATION LAYER:

This layer contains software elements that make up SAP GUI. This layer works as an interface between the R/3 system and its users. The R/3 system uses SAP GUI to provide a user-friendly interface for entering and displaying data.

The user input sends to the application server, and receives the data displayed is done in this layer. While part of SAP GUI is active, it is always linked to the last user session in the R/3 System.

2. APPLICATION LAYER:

Application layer contains one or more application server and message server. Each application server contains a set of services used to use the R/3 program. In theory, one only need one application server to run the R/3 application. The messaging server is responsible for communication between system servers. Transfers requests from one application server to another within the application. It also contains information about the application server groups and the current load balancing between them. Uses this information to assign the appropriate server when a user logs into the system.

3. DATABASE LAYER:

Database Layer has a central database system that contains all data in the R/3 System. A database system has two components - a data management system (DBMS), and a database itself. SAP has developed its own database called Hana that is compatible with all major data such as Oracle. All R/3 data is stored in a database. For example, a database contains control and customization data that determines how R/3 system works. It contains the program code for apps. Applications contain program code, screen descriptions, menus, operating modules, and various other items. This is stored in a special part of the data called the R/3 Repository, and is appropriately called storage. R/3 repository, items used on ABAP work bench.

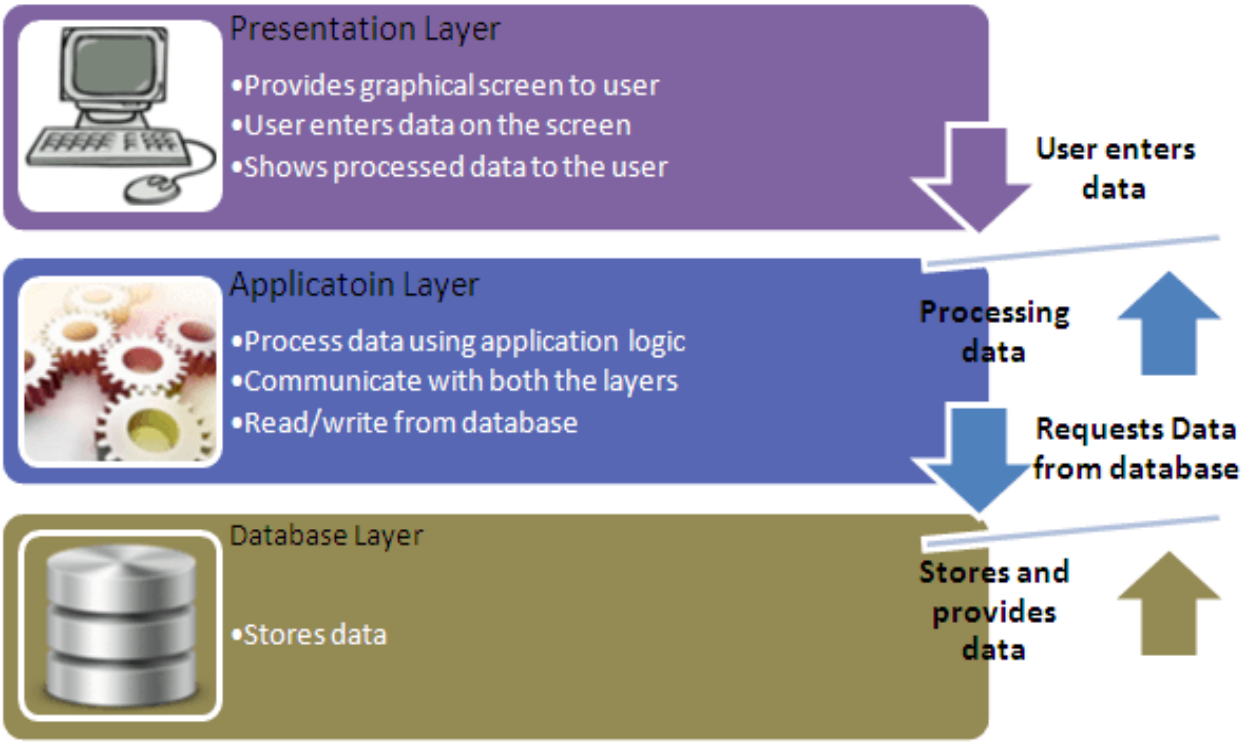

FIGURE 3.2 DIFFERENT LAYERS

3.2 SID

SID basically stands for SAP System Identification. It is a unique identifier code which is three character alphanumeric ID for every R/3 (SAP system) installation that contains multiple data servers and application servers.

For example: C11, PRD, E56 etc.

3.3 CLIENT

In SAP Client is a **'CUSTOMER'**. An individual customer maps for one client. In one SAP session, multiple clients can be created. There is no need to install separate softwares for each client. It provides isolation, one client cannot see the other client's data.
Client contains Application data (Stored in database table), Customizing data (Created by clients) and User master record (User authorizations).

3.3.1 ADVANTAGES

1. Costs are not limited to hardware and software sharing but many customers use the same application solution, including management and support.
2. Clients help establish your SAP country layout. For example, you can have a development team client, a test team client and a production client.
3. Clients enable SAP SAS providers to be able to install a small number of SAP Systems, but they provide a large number of customers.

3.3.2 DEFAULT CLIENTS

There are three default clients:

1. **000 Client** (Golden client) is available when we install R/3 System. It contain independent data of the clients.
2. **001 Client** is a copy of 000 client including the test company. Basically used to create new clients.
3. **006 Client** (Early Watch client) is used for monitoring services in SAP System.

3.3.3 DEFAULT USERS

There are two default users:

1. **DDIC** is a Master user in which the password is set while installing the system.
2. **SAP*** in this the password set is default all over the world.

SAP NETWEAVER

It is not a product but a new version of basis which provide an integrated technology platform through which by using HTTP protocol one can easily access SAP data.
The capability of this are:

People integration (multi-channel access/portal)
Information integration (reporting, analytics and master data management)

Process integration (integrating with 3rd party tools)
Application platform (ABAP/WebAS/J2ee(JAVA))

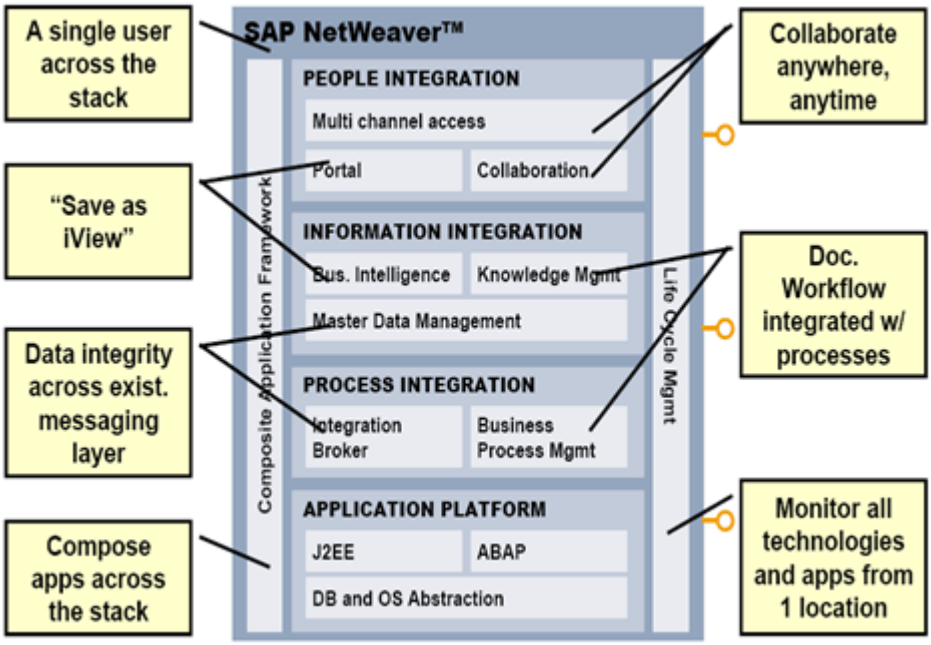

FIGURE 3.3 SAP NETWEAVER

3.4 USER ADMINISTRATION

3.4.1 USER CREATION

Step 1) T-code for creating user is SU01. So, Execute SU01.
Step 2) Enter username and click on create icon.
Step 3) Open address tab to fill details.
Step 4) On logon data choose the user type.
Step 5) Enter password.
Step 6) Click on roles tab and assign required roles.
Step 7) Click on profiles tab and assign required profiles.
Step 8) Click on save and exit using F3.

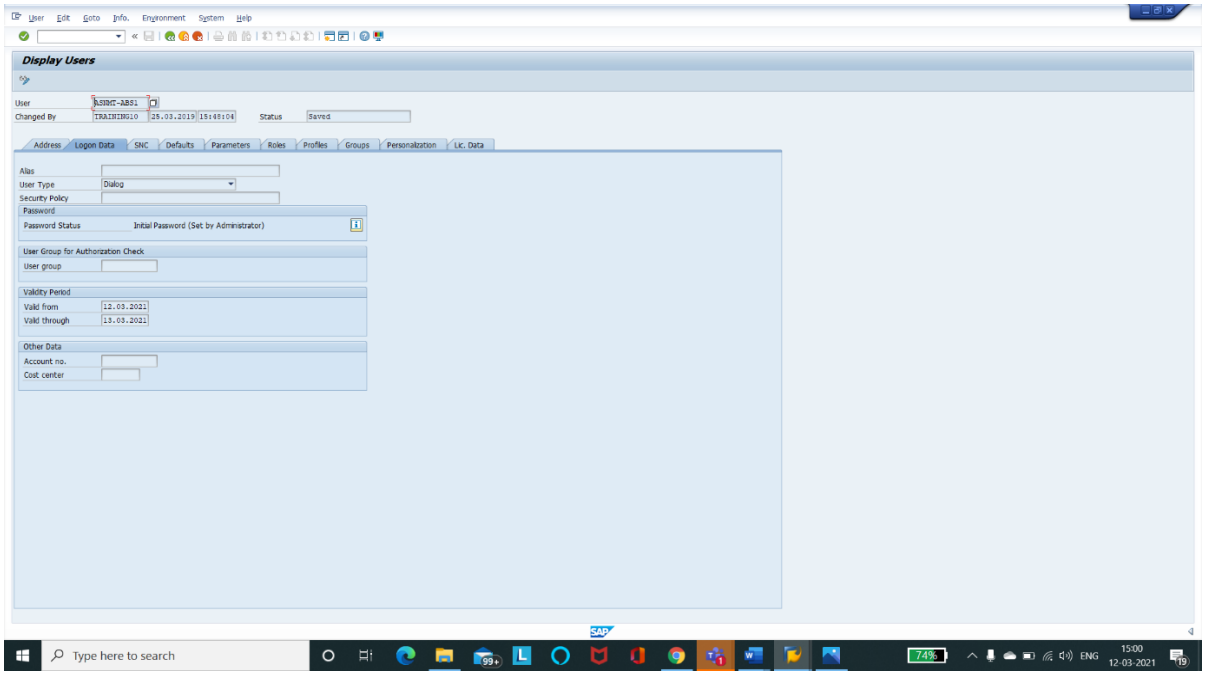

FIGURE 3.4 USER CREATION

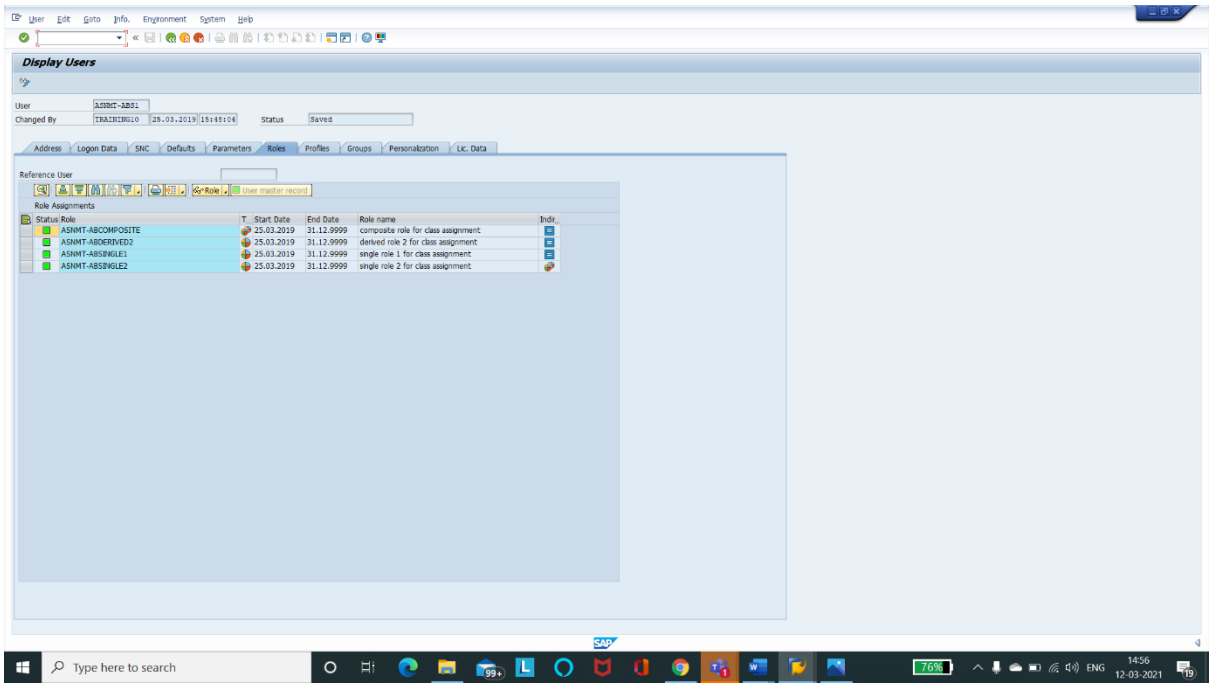

FIGURE 3.5 ASSIGNING ROLES

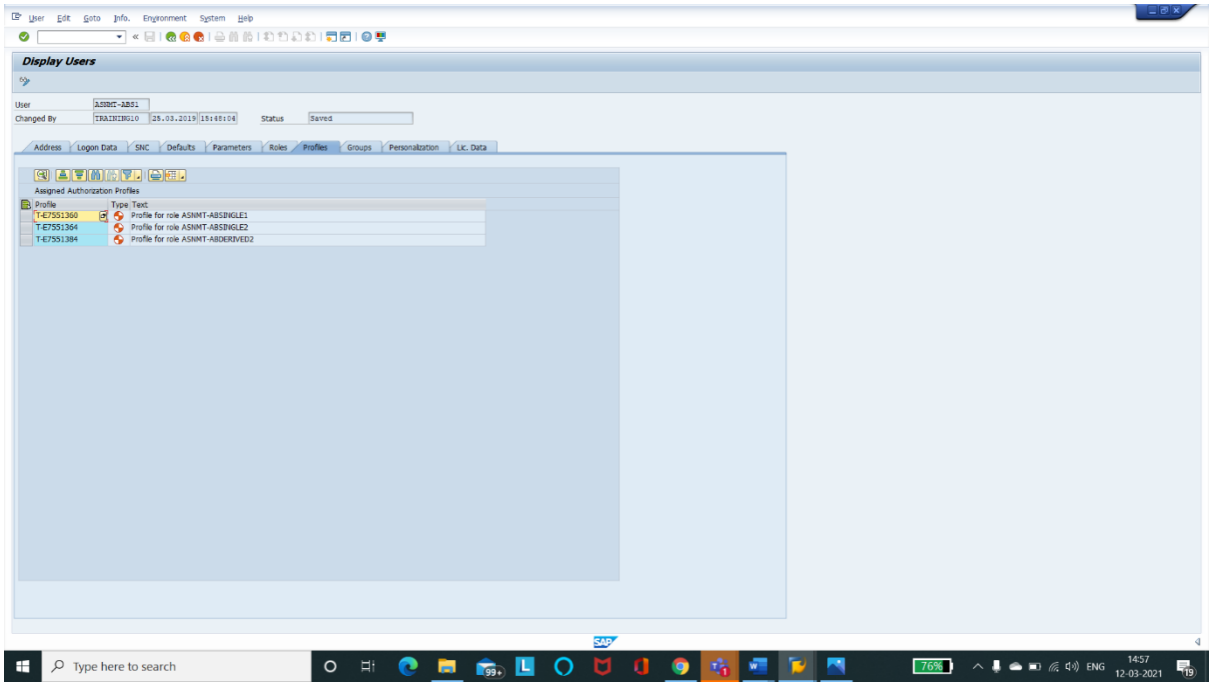

FIGURE 3.6 ASSIGNING PROFILES

LOCKING USER

To deactivating the user temporarily so they cannot access the system anymore locking a user is neccessary.

It can be done by two ways:
1. Automatically (Happen when login attempts failed more than three times).
2. Explicity/ Forcefully

Steps to lock single user:
Step 1) Use T-code SU01 and enter the username that has to be locked.
Step 2) Click on lock icon.
Step 3) On the dialog box appeared click lock icon again to lock.

Steps to lock multiple users:
Step 1) Use T-code SU10.
Step 2) In username field enter user name to be locked.
Step 3) Click on lock icon. All the user that are listed will be locked after this.

Steps to unlock single user:
Step 1) Use T-code SU01 and enter the username that has to be unlocked.
Step 2) Click on unlock icon.
Step 3) On the dialog box appeared click unlock icon again to unlock.

Steps to unlock multiple users:
Step 1) Use T-code SU10.
Step 2) In username field enter user name to be unlocked.
Step 3) Click on unlock icon. All the user that are listed will be unlocked after this.

USERTYPES IN SAP R/3

1. Dialog User : For one account per person. (Personal E-mail ID)
2. System User : For one account mutiple user. (Library IDs)
3. Communication User : For only backend connection. (Remote server RFC)
4. Service User : For background jobs.
5. Reference User : For copying authorization no logon possible. (Referring one's access to other)

3.4.2 PARAMETER

To manage SAP system, parameter is used to set keys and values. Basically it is of two different types i.e,

Static : Require restart of the system.
T-code : RZ10.

Dynamic : Does not require restart of the system.
T-code : RZ11

3.5 CREATE A NEW CLIENT

In theory, client can be created from 000 to 999.

Step 1) T-Code for client creation is SCC4. So, Execute SCC4.
Step 2) The SAP client's initial screen will be displayed after that click on new entry to make new client.
Step 3) Enter basic details there and then save it.
Step 4) Display the view and the new client got listed there.

CLIENT COPY

Using SCC4 one can only create a blank client. So to fill data in client one should copy the client which is known as client copy. Generally that means transferring client specific data in the same or different instances.

There are three types of client copy :
1. Local client copy
2. Remote client copy
3. Client import/ export

LOCAL CLIENT COPY

T-code used is SCCL. It is used to copy client in the same instance.

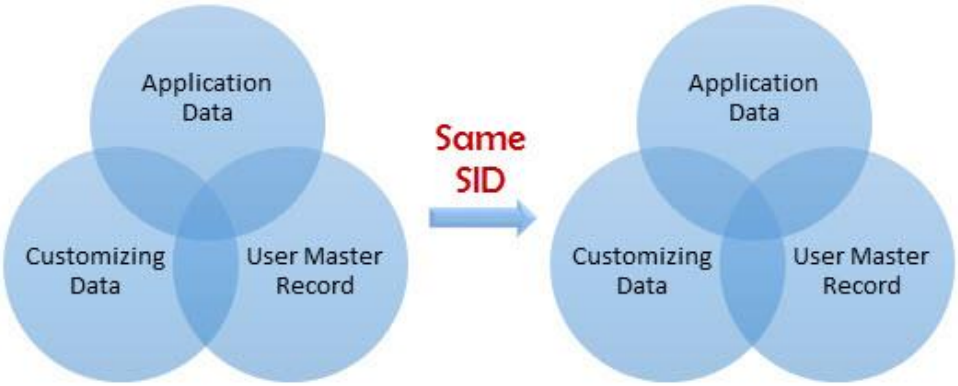

FIGURE 3.7 LOCAL CLIENT COPY

REMOTE CLIENT COPY

T-code used is SCC9. It is used to copy client between different instances.

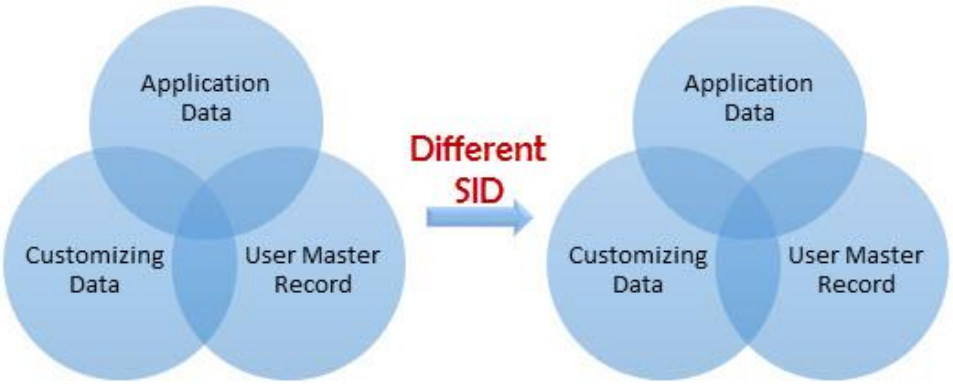

FIGURE 3.8 (A)

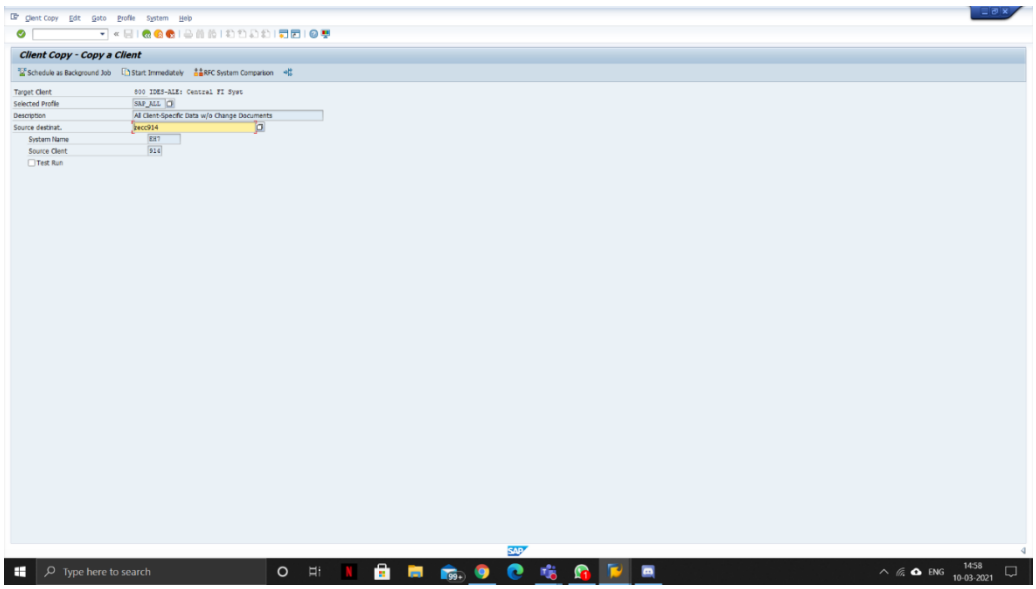

FIGURE 3.8 (B) REMOTE CLIENT COPY

CLIENT IMPORT/EXPORT

T-code used is SCC8.

DELETING CLIENT

Step 1) Execute T-code SCC5.
Step 2) Choose option delete entry from T000.
Step 3) Once the process completed the client will be deleted. To check this process use T-code SM50.

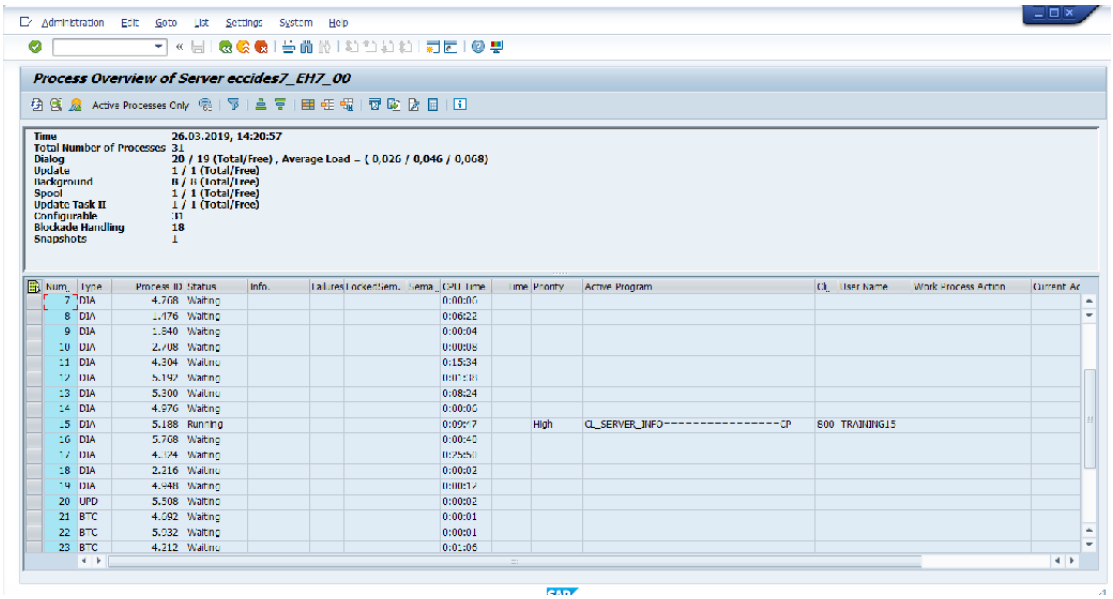

FIGURE 3.9 SM50

3.6 BACKGROUND JOBS

Background processes generally run along with the foreground processes and operations without disturbing them.
They are non-interactive kind of jobs and runs behind the foreground jobs.
T-code used is SM36 and SM37.

ADVANTAGES

1. It reduces user interaction and can work seamlessly in the background without user input.
2. It can be set as the user's choice.
3. Once you have defined a variant for the background function, the user does not have to worry about value field input. Therefore,user confusion is also reduced.
4. Ideal for time consuming.
5. Long running jobs.
6. It could be scheduled periodically.
7. It doesn’t require foreground or a separate PC.

STATUS OF BACKGROUND JOBS

1. **Scheduled :** You have defined the program call and version however now not described begin condition like start date, cease date, Frequency etc. that means you have not defined while a job need to be scheduled in system.

2. **Released :** All required criteria are fulfilled for activity definition. Begin situation is essential for the task to be in launch status.

3. **Ready :** All of the required situations are met to run the activity in a background workprocess. However job scheduler has positioned the job inside the queue because it's far looking ahead to background workprocess to be unfastened.

4. **Active :** Process has started out running inside the background. We cannot alternate the repute of the process once it's miles in active reputation.

5. **Finished :** Process finished correctly. It way the favored project is fiished with zero errors.

6. **Cancelled :** Job got cancelled by administrator forcefully or there might be few problem so you have to look into job logs to find out the issue.

SCHEDULE BACKGROUND JOB

Step 1) T-code used is SM36 so execute T-code SM36.
Step 2) Fill the details and click on spool list recipient.
Step 3) Write SAP username and copy. Then choose step button.
Step 4) Define name of program and various details to schedule job.
Step 5) Then choose start and fill the requirement of the job as start date, frequency etc for job.
Step 6) After filling and saving all the condition save the job. Your job is scheduled.
Step 7) To check the status execute T-code SM37.
Step 8) Select the criteria and search.

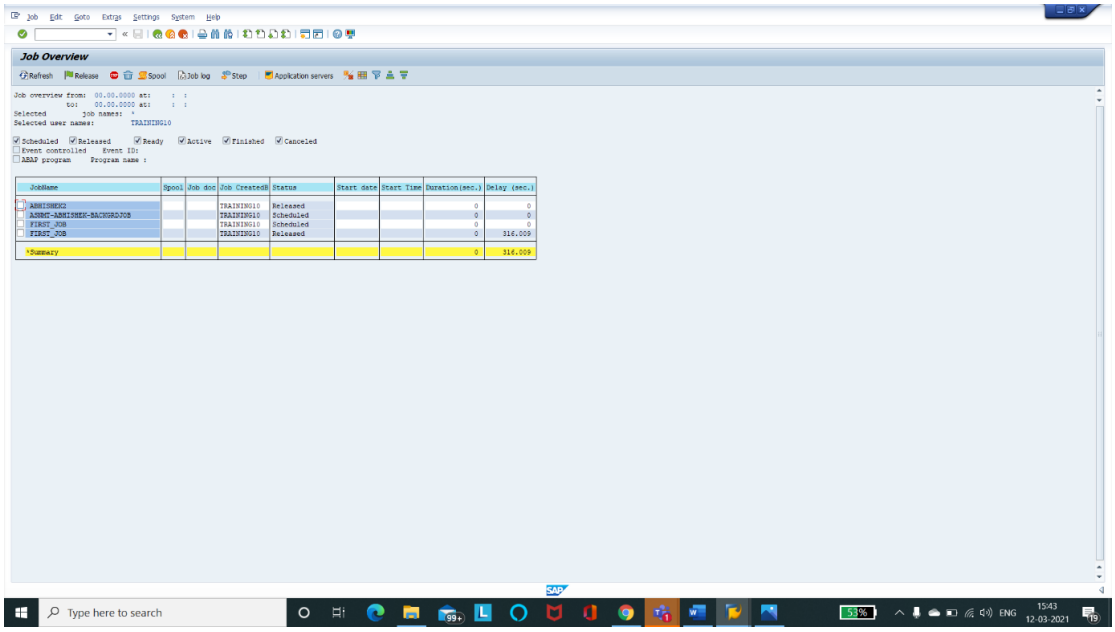

FIGURE 3.10 EXECUTION OF SM36

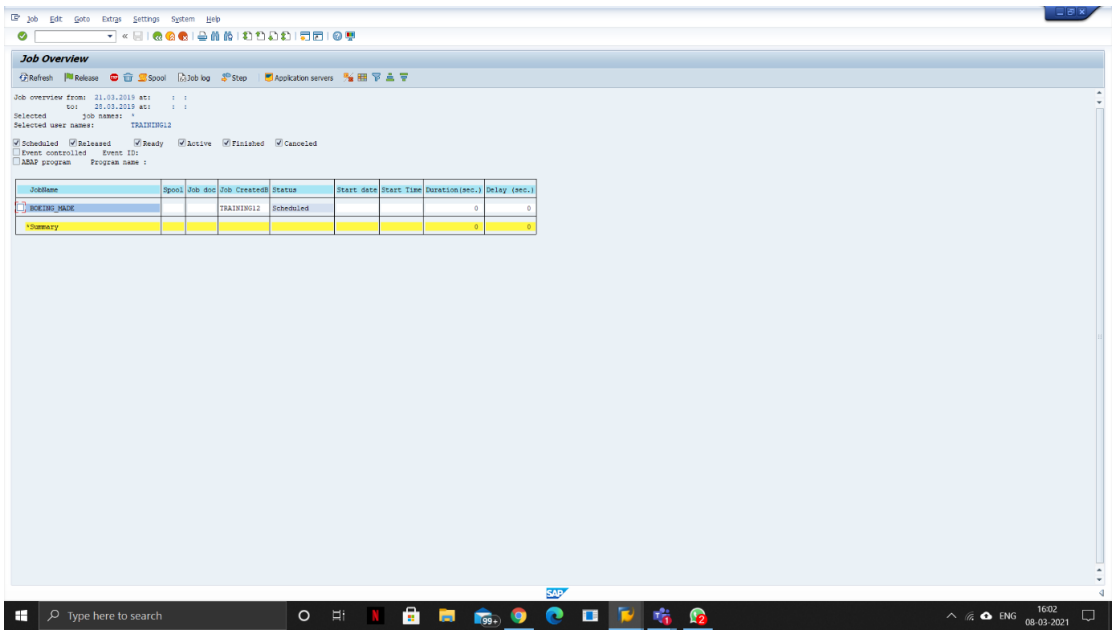

FIGURE 3.11 EXECUTION OF SM37

CHAPTER- 4
SYSTEM MONITORING

The SAP Solution Manager provides an overview of current state of the art systems, including related conditions, information details and hosts. System Monitoring is based on automated testing at regular intervals in the four categories Availability, Performance, Alternative, and Configuration. In each of these categories, multiple metrics and related boundaries can be defined for each controlled object.
Configuration is based on the concept of the template. The pre-defined templates can be used as a starting point for finding specific templates for your customers.
The System Monitoring application provides details about the current situation according to the final rating of each metric. Additionally, alerts will be created and can be managed via the Alert Inbox in case the thresholds are broken.

4.1 TRANSACTION CODE

SM01

It is used to lock/ unlock T-codes and also display locked / unlocked T-codes.

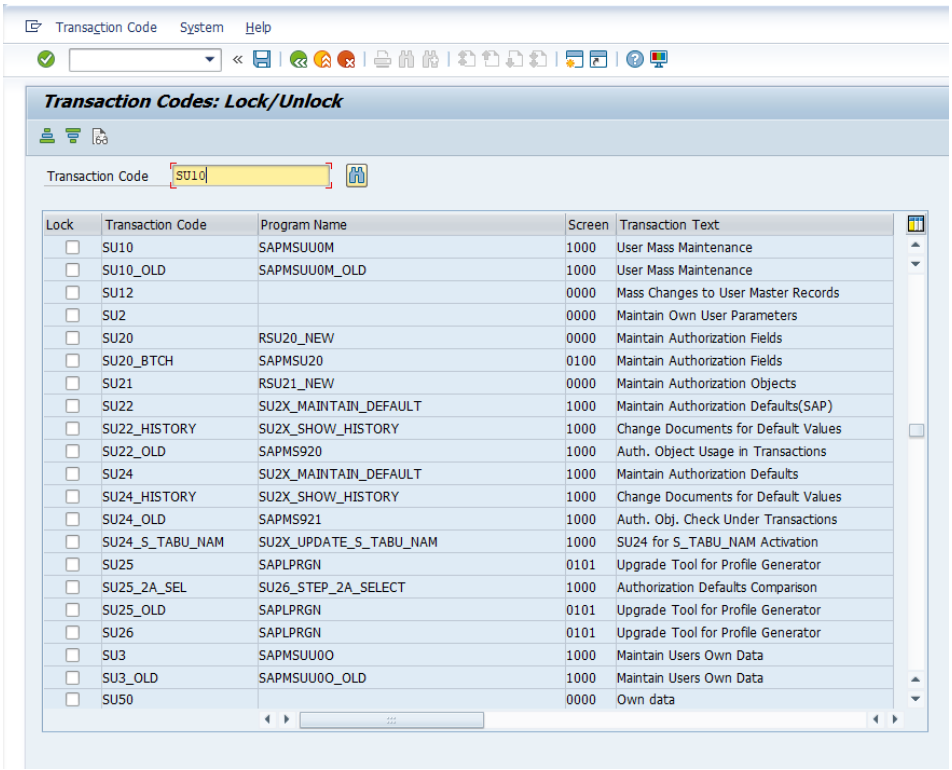

FIGURE 4.1 SM01

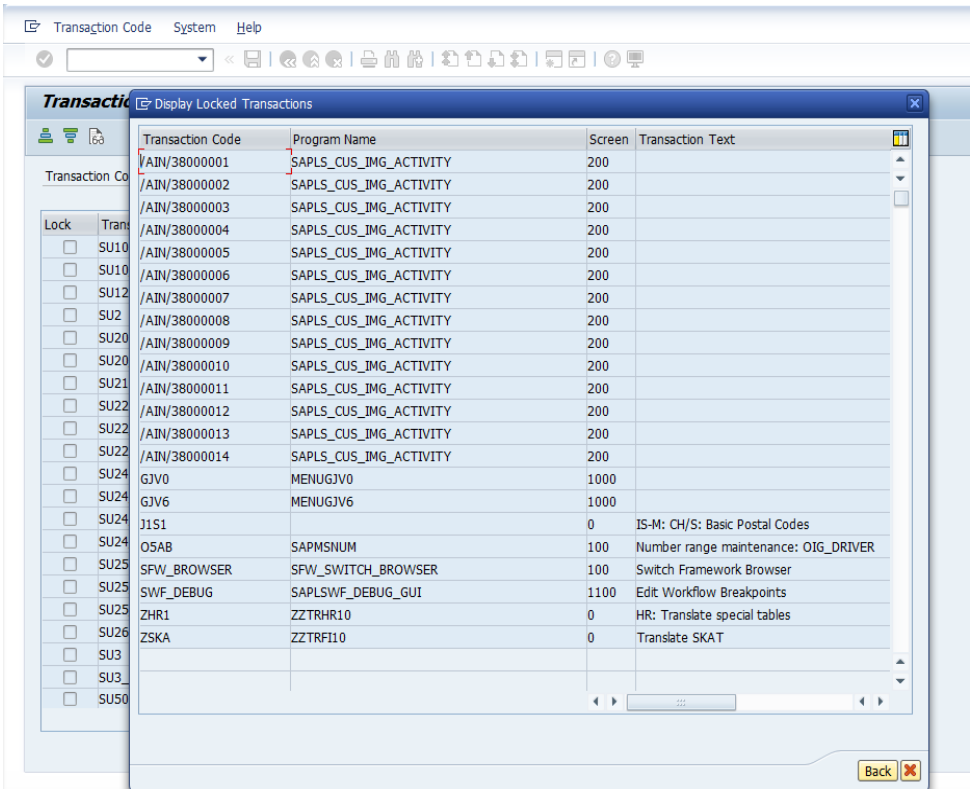

FIGURE 4.2 DISPLAYED LOCKED TRANSACTIONS

SM02

It is a very useful to communicate system changes or alerts to the entire SAP user community. Most importantly, it can be used to broadcast messages related to security profile changes so that users will have time to rest for any changes or details about the system.

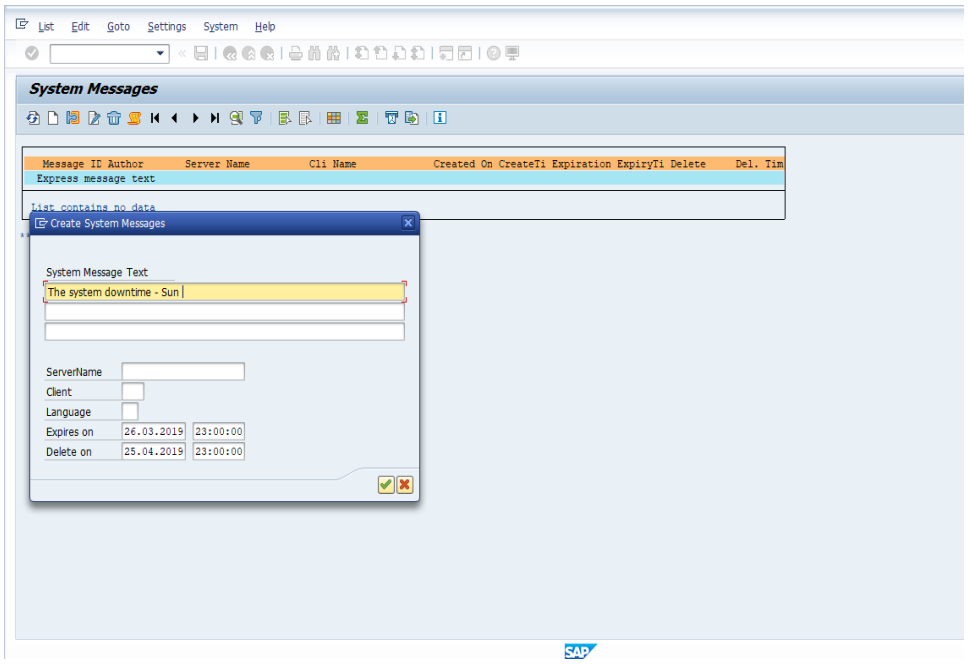

FIGURE 4.3 SM02

SM04

Currently logged in user can be displayed by this t-code. Total number of users and times are given at the bottom of the list.

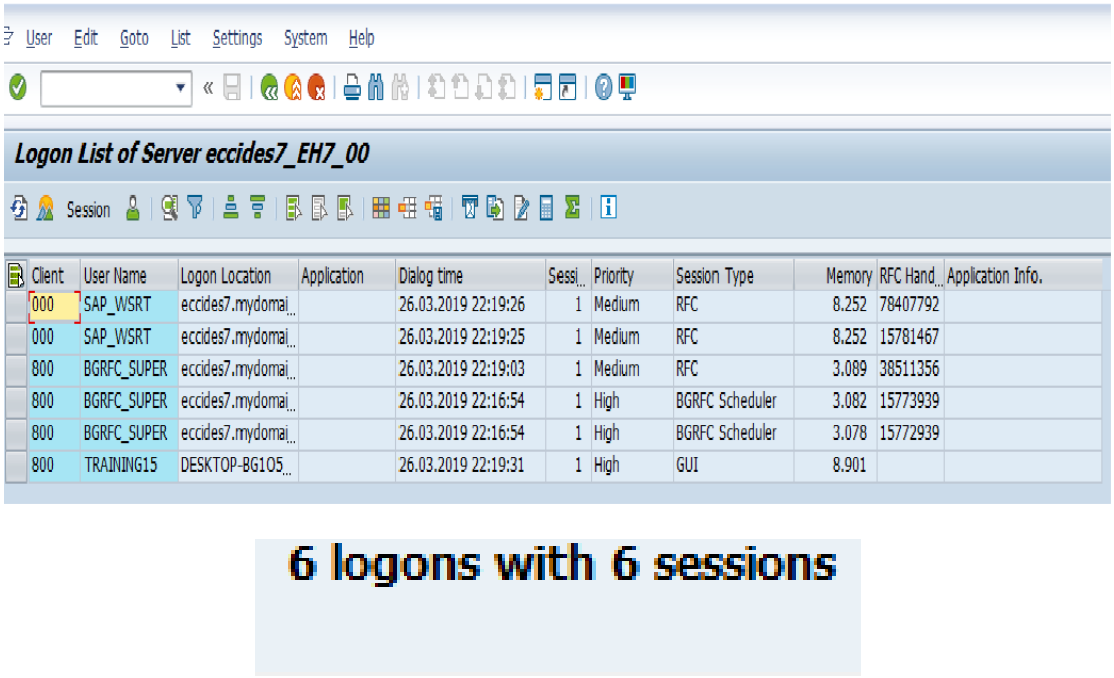

FIGURE 4.4 SM04

SM04 can also display the transactions as well as the time so one can end and examine the session as well at the particular time the server logged in.

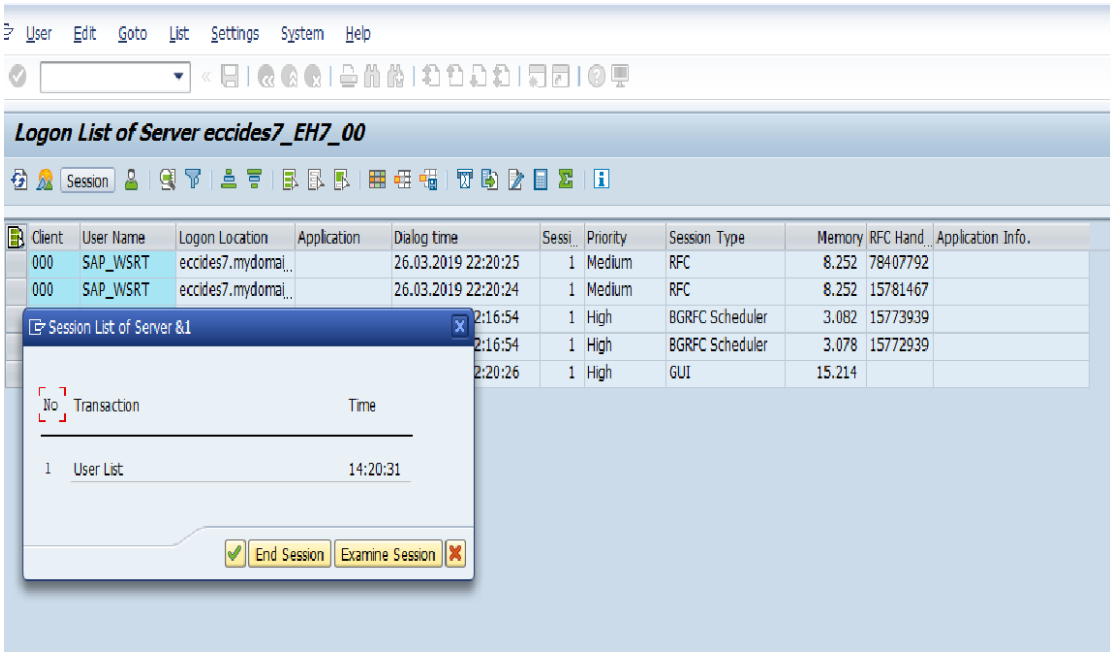

FIGURE 4.5 SESSION LIST OF SERVER

AL08

Displaying the users list logged at that time into the global system or in all active system settings.

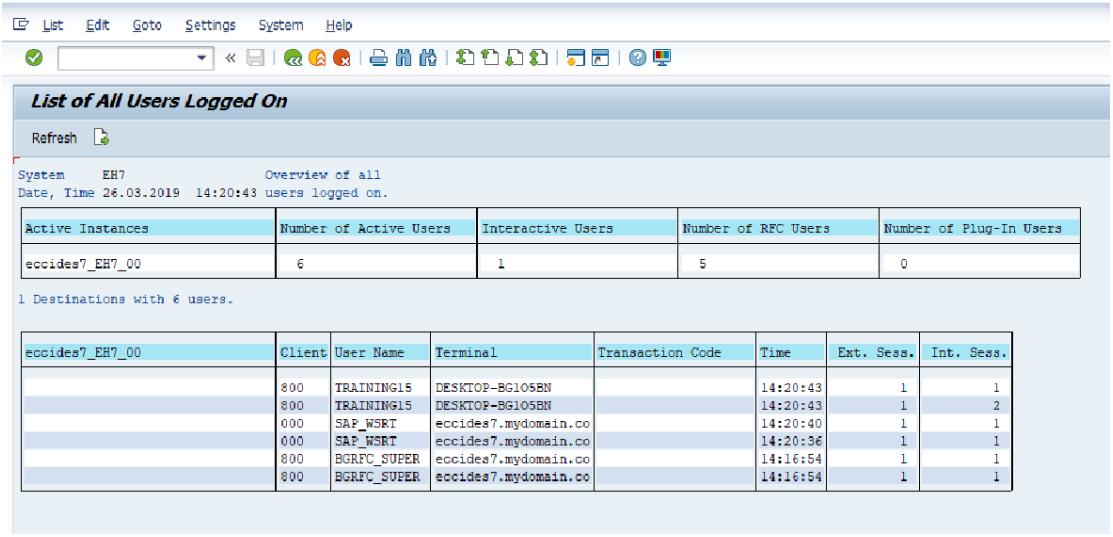

FIGURE 4.6 AL08

SM50

It is used to monitor and manage work processes.

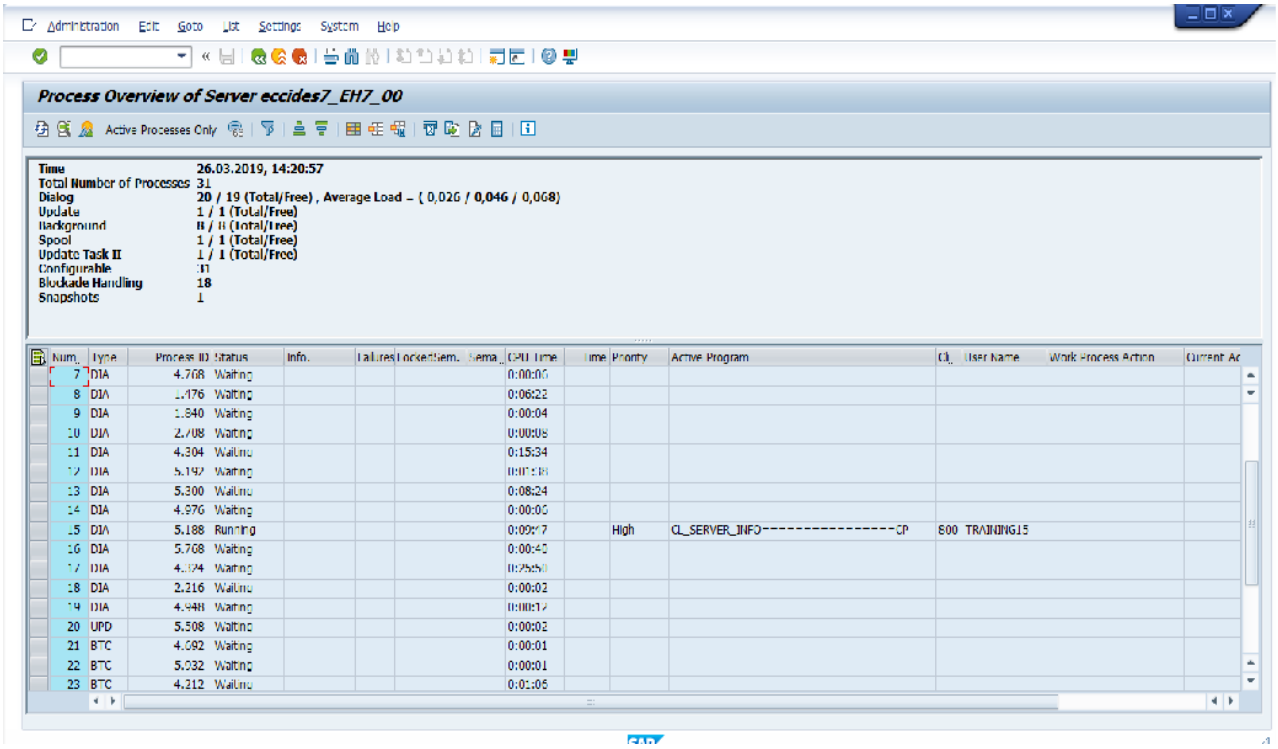

FIGURE 4.7 SM50

SM51

It is used to show a list of active application servers registered on the SAP message server.

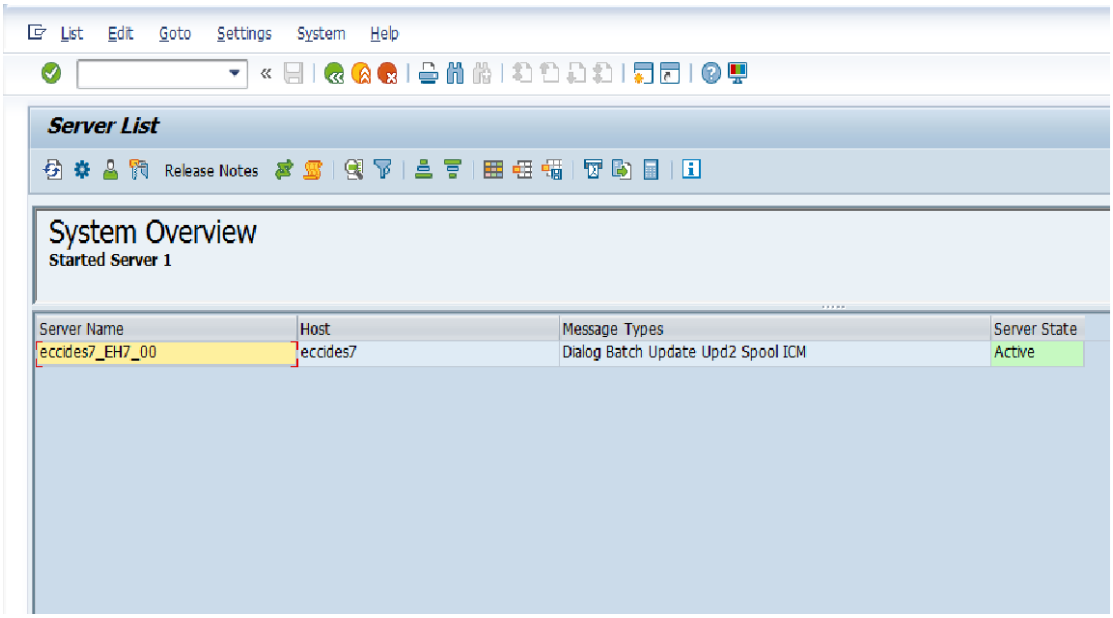

FIGURE 4.8 SM51

SM 12

It is used to used to show and remove lock in SAP. For making it safe from the changes done by other user SAP provides a locking mechanism. We only record key entries with the previous day stamp.

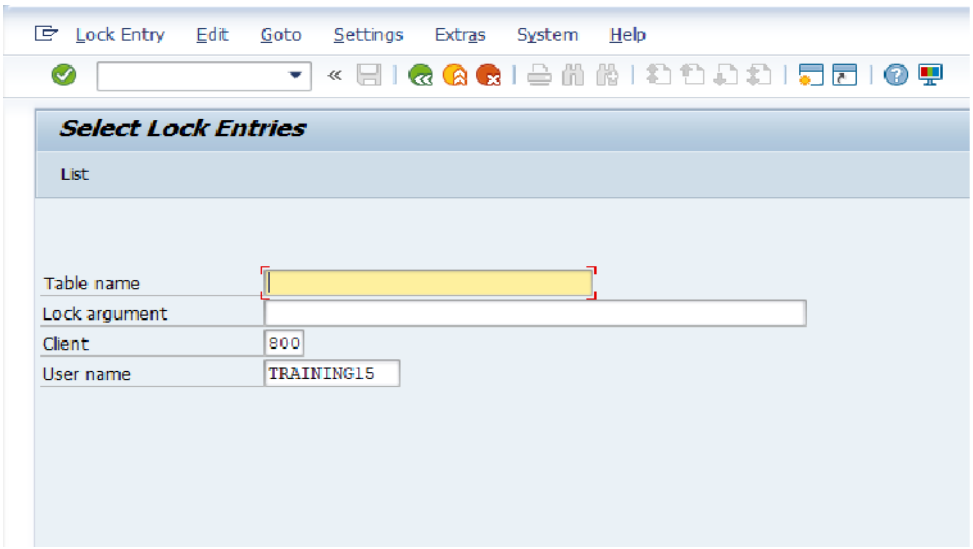

FIGURE 4.9(a) SM12

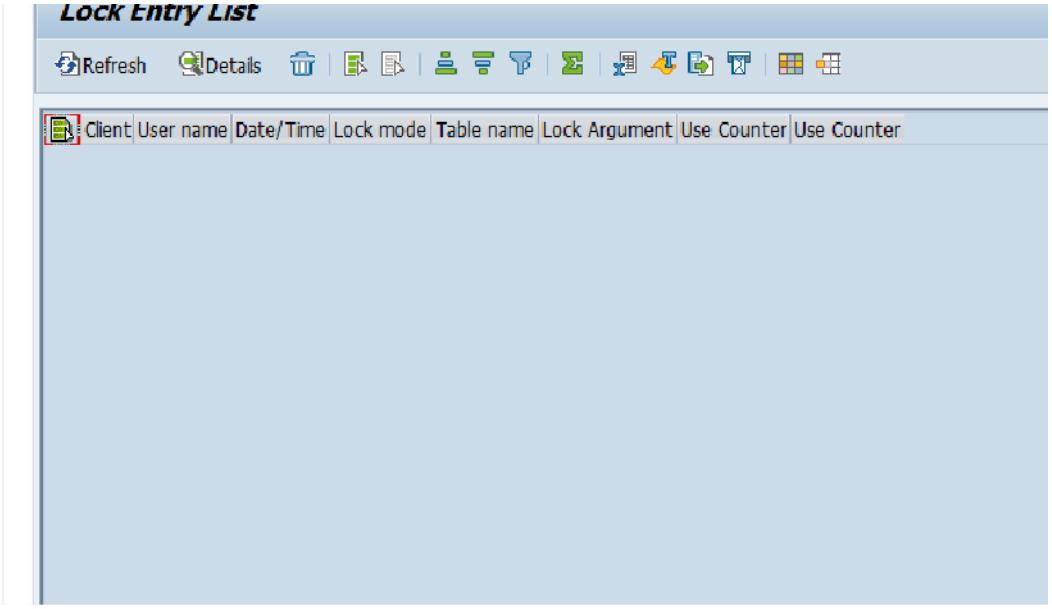

FIGURE 4.9(b) SM12 LOCK ENTRY LIST

AL11

To display all SAP directions we use AL11 T-code.

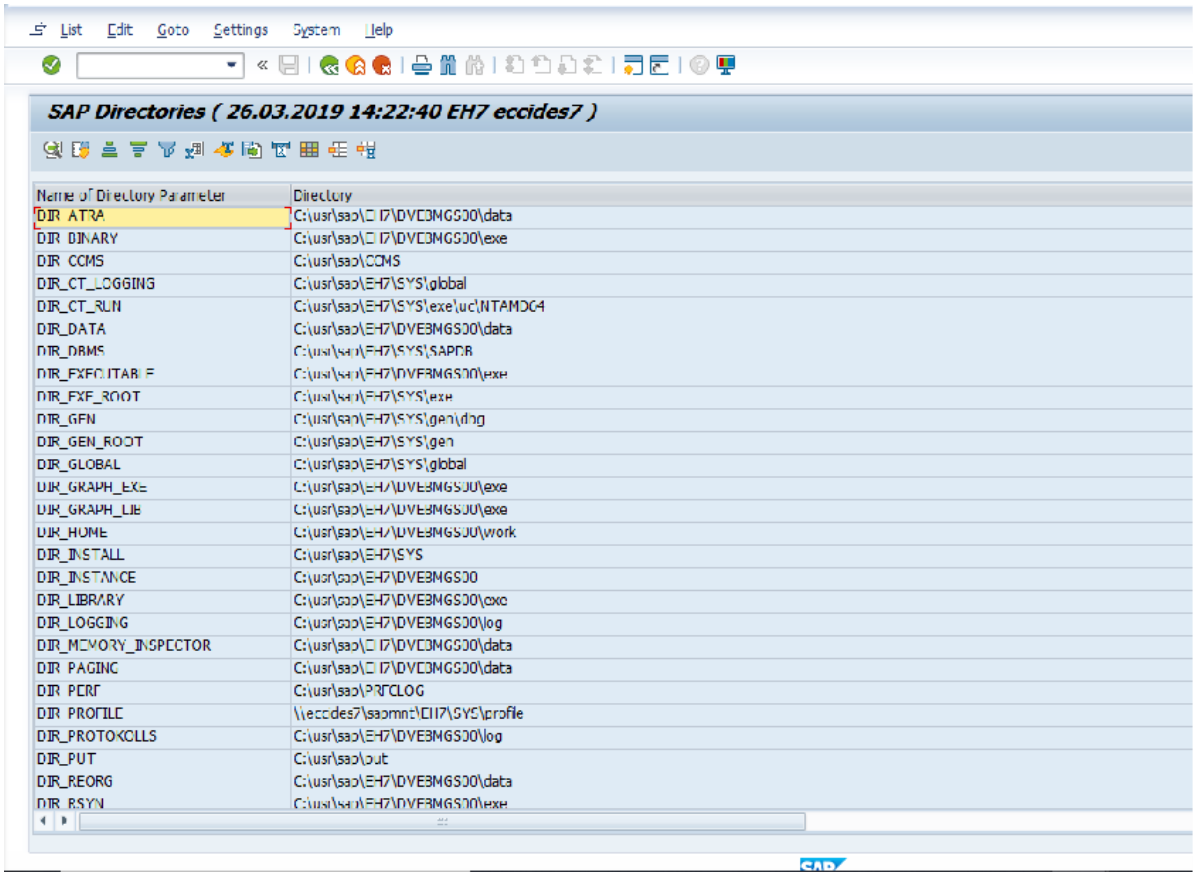

FIGURE 4.10 AL11

SM13

It is used for Administrate Update Record in SAP. Details such as Client, User, Date, Time, T-code and status for update rate failure.

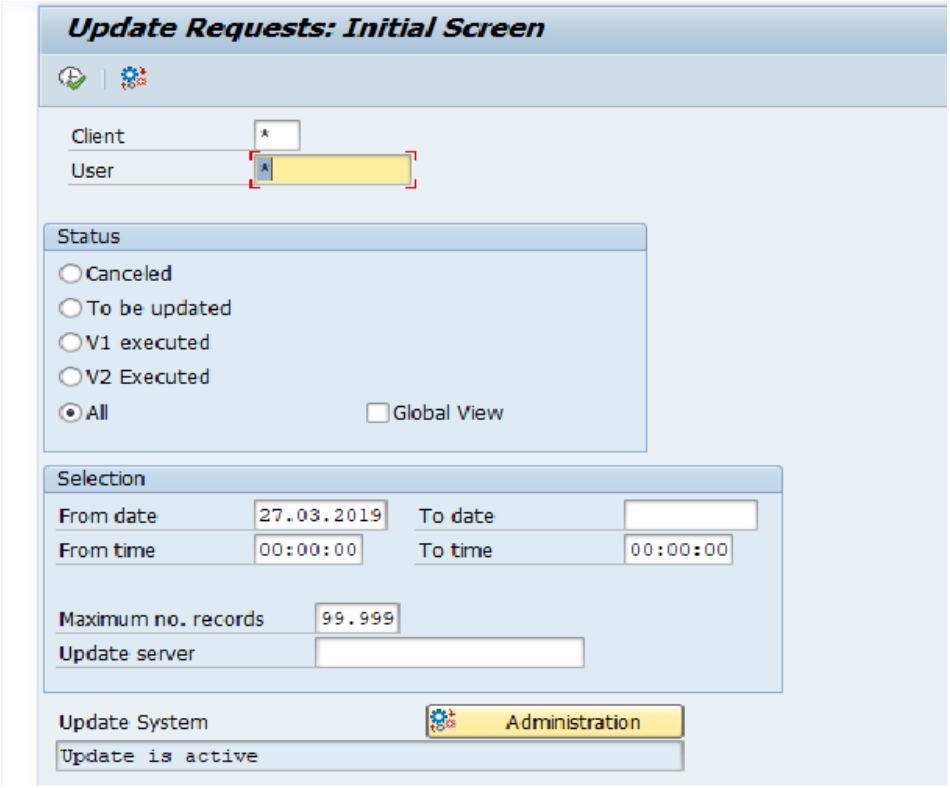

FIGURE 4.11 (a) SM13

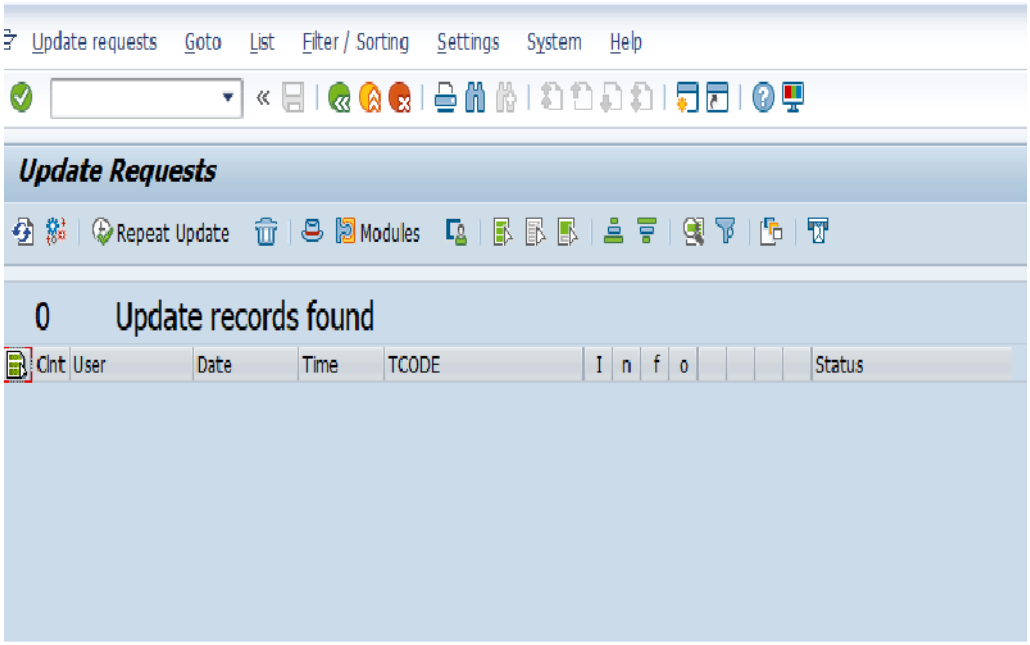

FIGURE 4.11 (b) SM13 UPDATE REQUESTS

SM21

It is used to view and analyze system logs for any sensitive log entries. SAP System logs are all system errors, alerts, user locks due to log failures in attempts from known users, and they are processing messages in the system log.

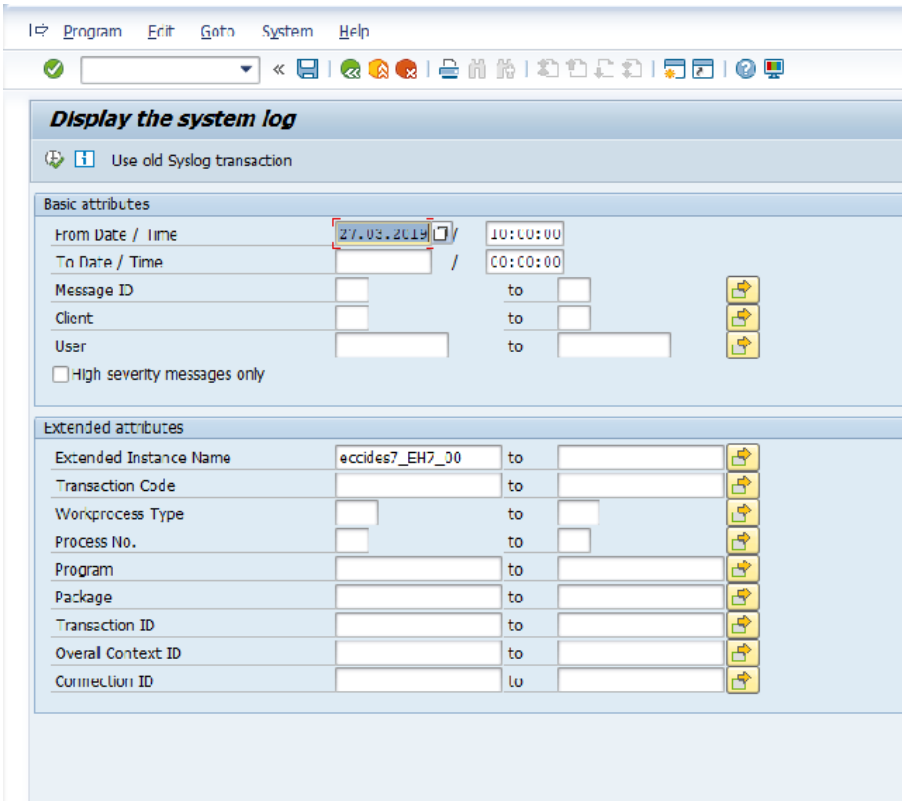

FIGURE 4.12 SM21

In the system log analysis window, we can view/analyze a critical error message with a double click on it.
We also get T-code details used by the user when an error occurs.

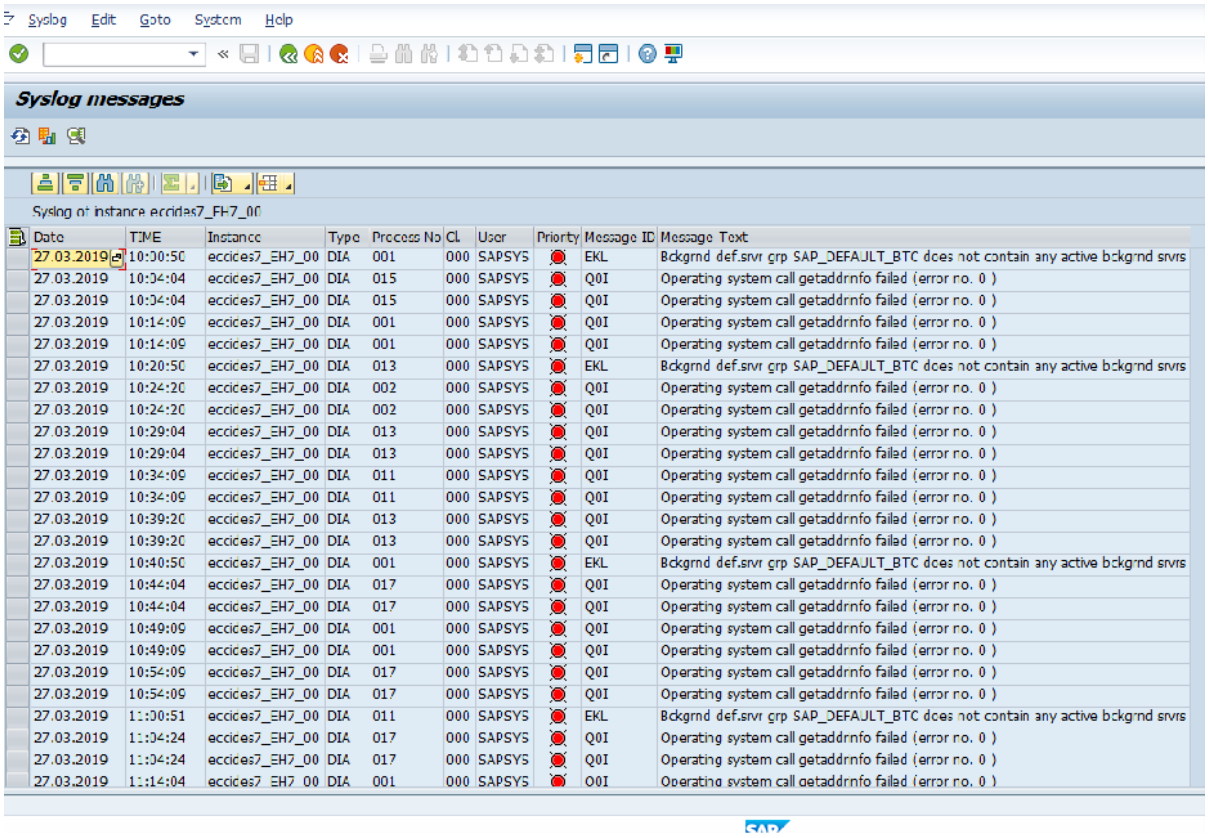

FIGURE 4.13 SM21 SYSTEM LOG MESSAGES

SM37

It is used for background monitoring, batch functions running in the system. From the first screen, you can search by username, username or program name according to the time zone.

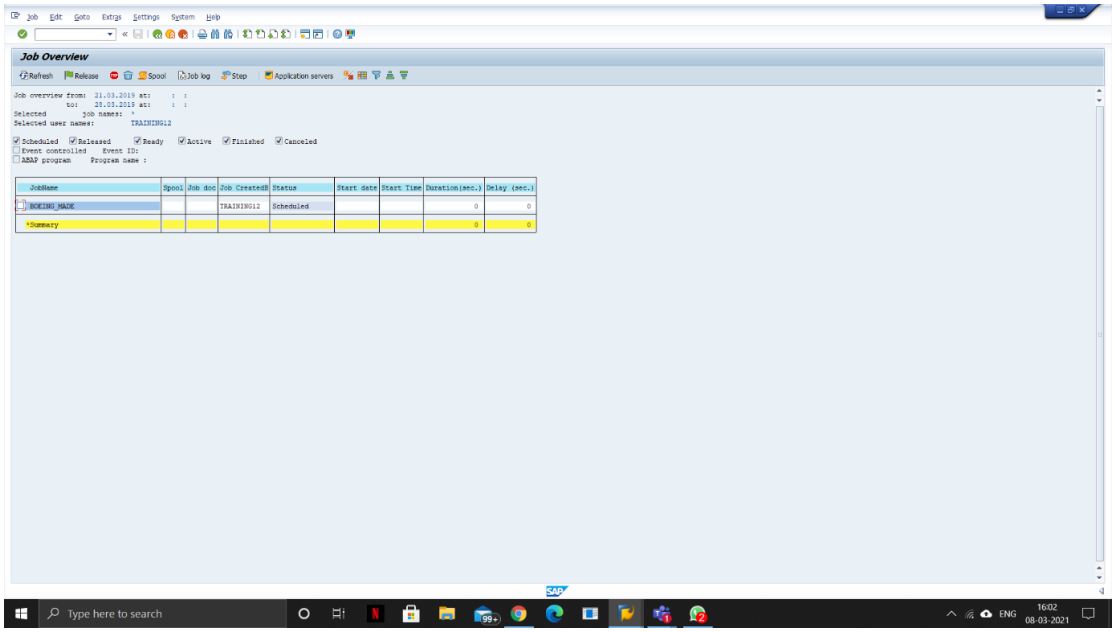

FIGURE 4.14 SM37

RZ20

It is used to used for CCMS Monitoring in SAP. It comes under the SMOI package. When we create this transaction code, RSALSTMO is a standard SAP system developed in the background.

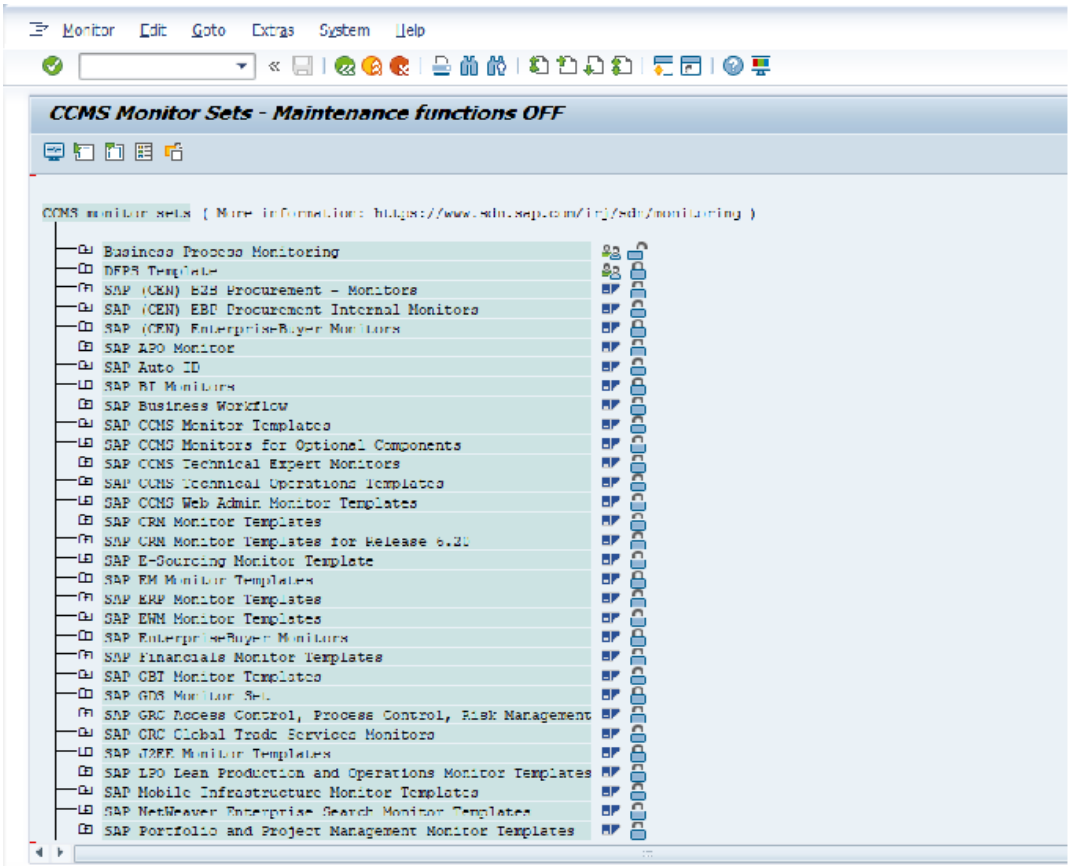

FIGURE 4.15 RZ20

ST01

It is Security Trace Tool (transaction ST01) provides a way to track the full sequence of transaction security tests. As all checks are shown, this is an irrational way to investigate potential issues.

We usually use tracking to check authorization, RFC calls, HTTP calls etc, so look at the ST01 transaction and set the 'authorization test' flag first.

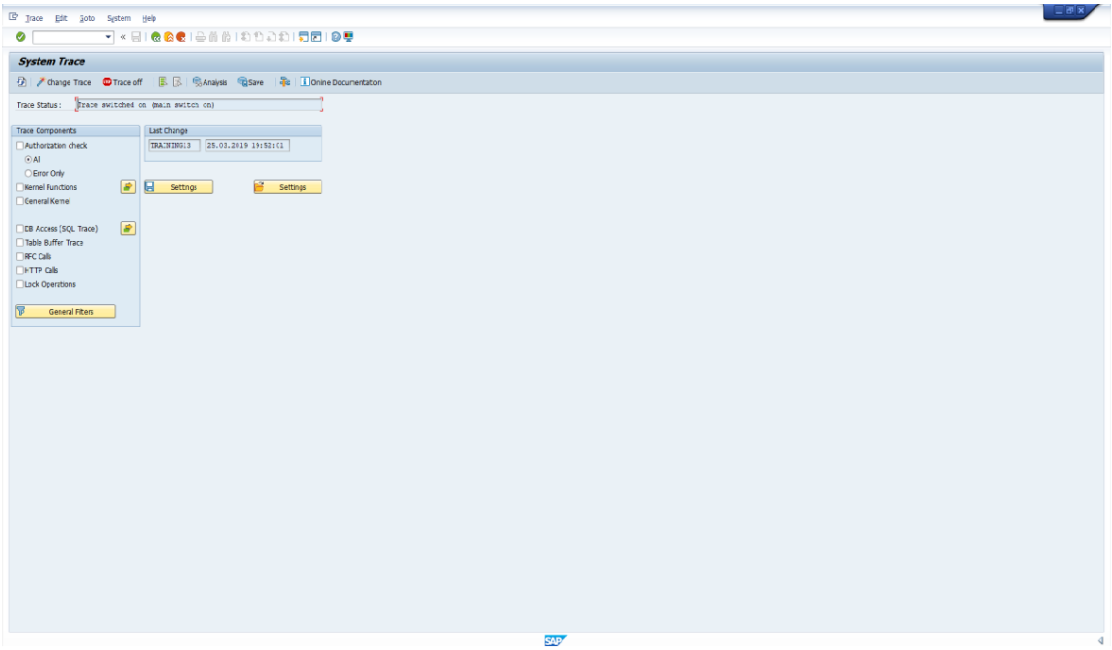

FIGURE 4.16 ST01

ST02

It is used to display the present memory usage status of a selected SAP application server.
The beat rate of R/3 buffers should be 98% or better. Hit rate of but 98% can only be considered acceptable for the system bath, single recording bath and export/import bath.

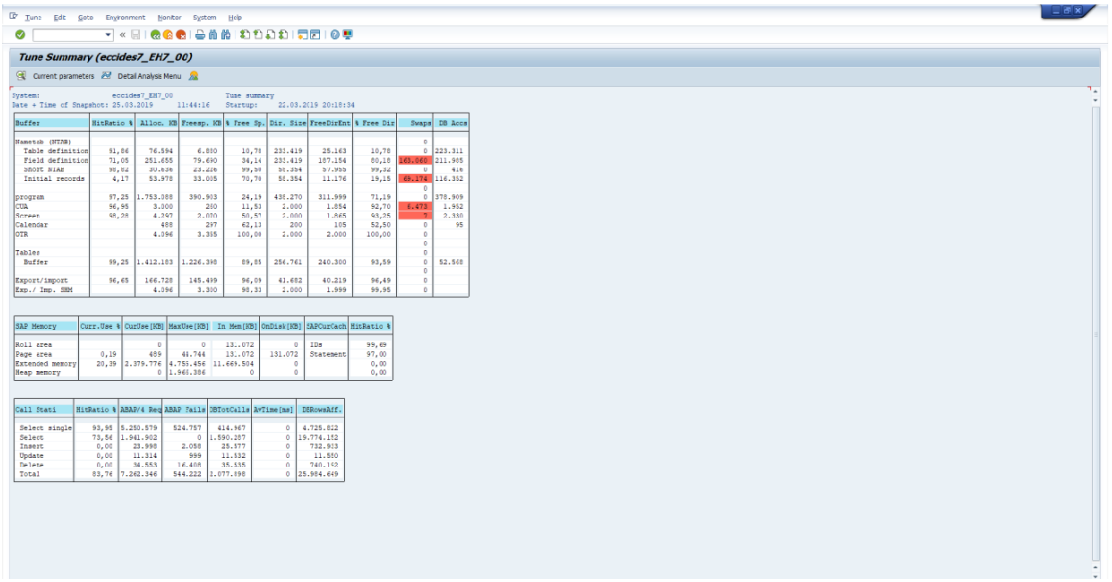

FIGURE 4.17 ST02

ST03

It is used to get the list of the overview of instances and the last analysis data.

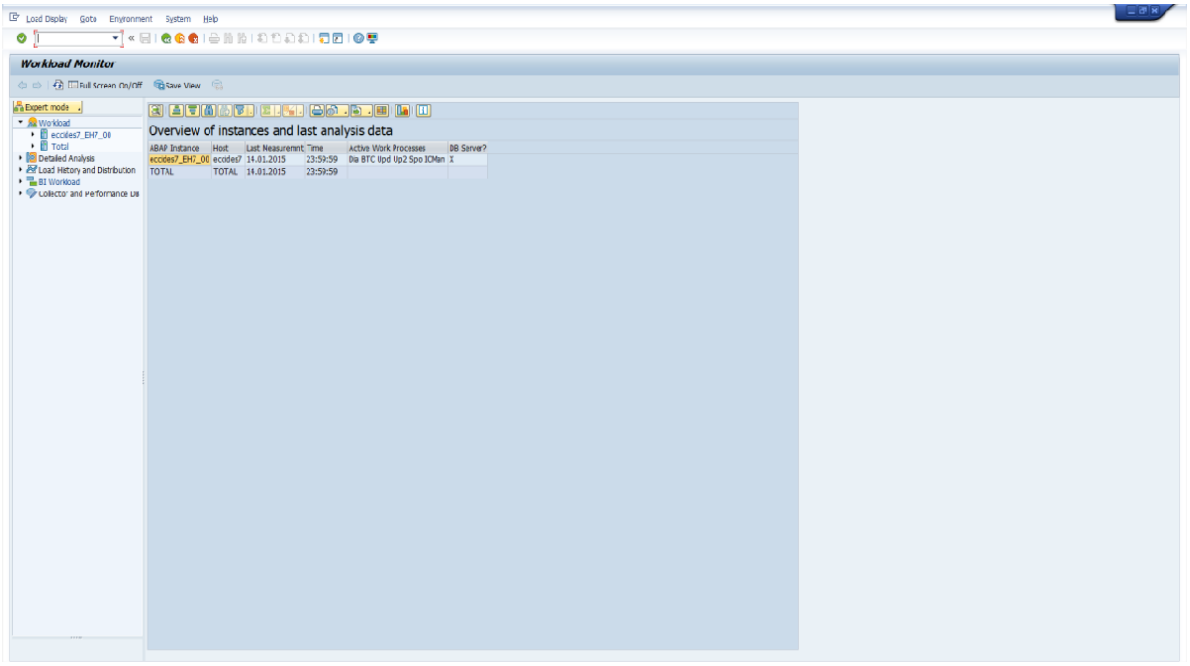

FIGURE 4.18 ST03

ST04

It is used for SQL server performance analysis. It is wont to display the database buffer hit ratio.

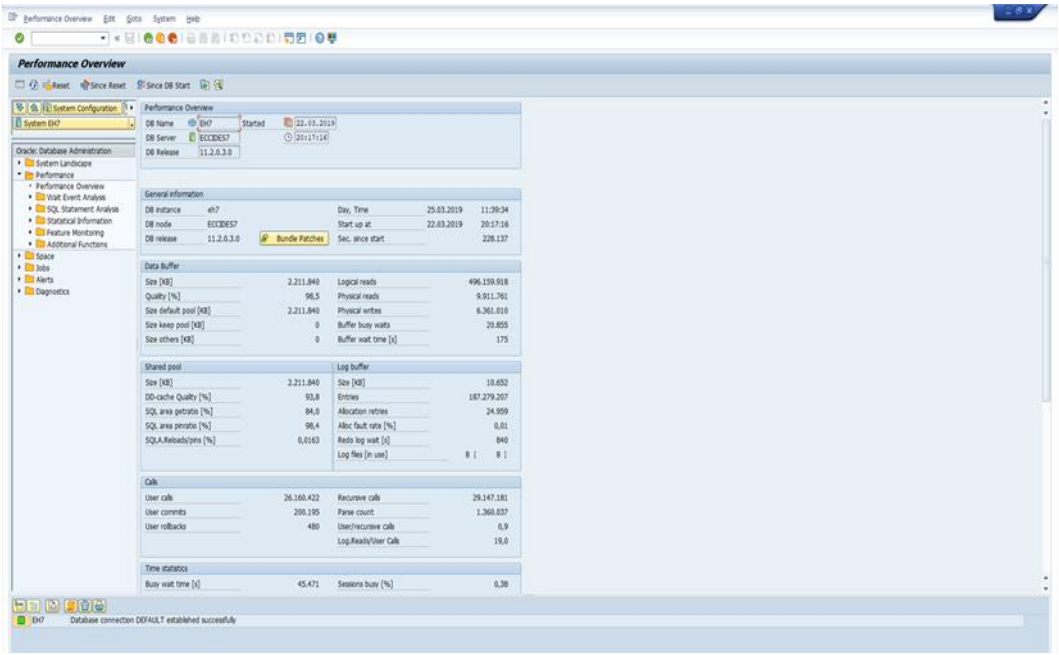

FIGURE 4.19 ST04

ST06

It is used to fetches and displays the data like CPU Utilization, Memory Utilization and disk response time.

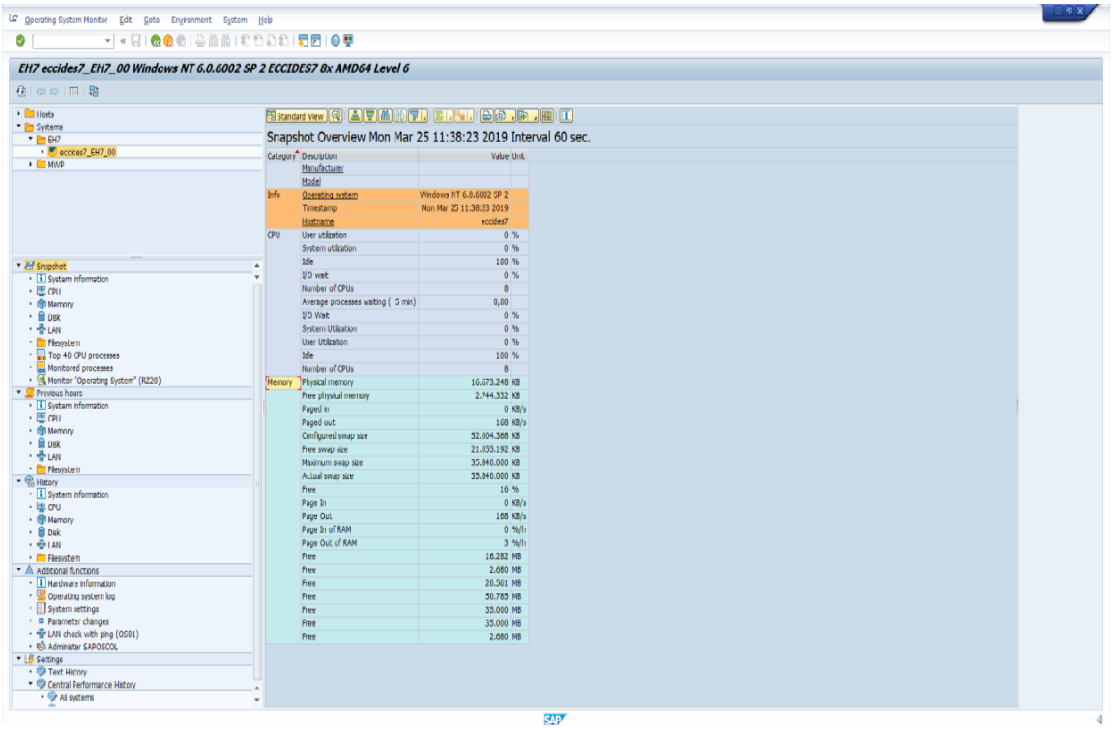

FIGURE 4.20 ST06

ST22

It is used to:
1. Displays and analyzes update statistics again
2. Save in a local file
3. Print
4. Store for a longer period of time.

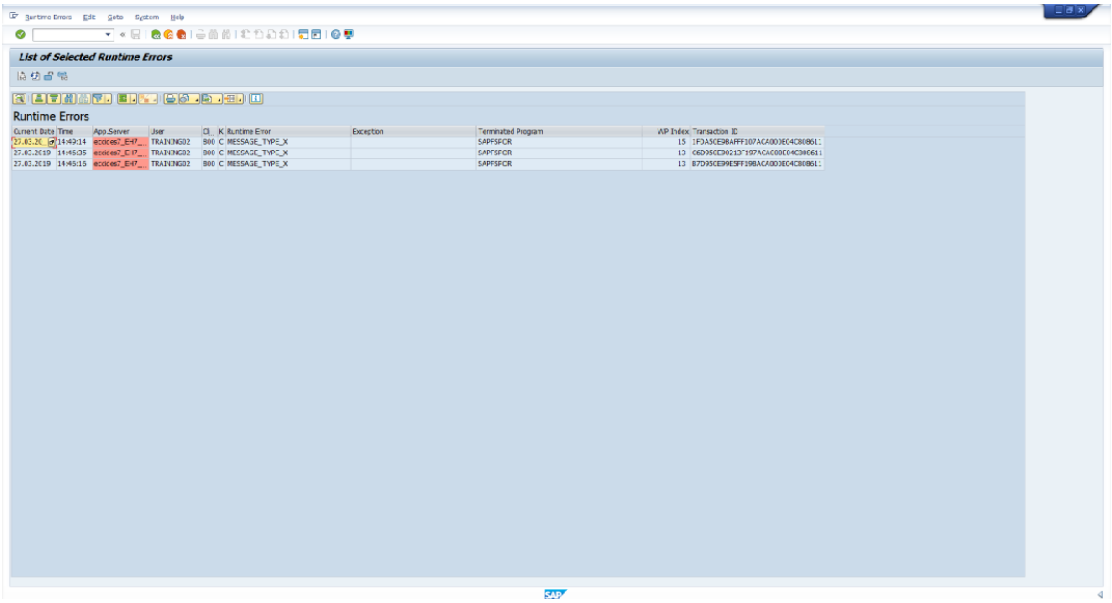

FIGURE 4.21 ST22

DB02

It is used to research and monitor database statistics (db growth, table space size , missing index and lots of more).

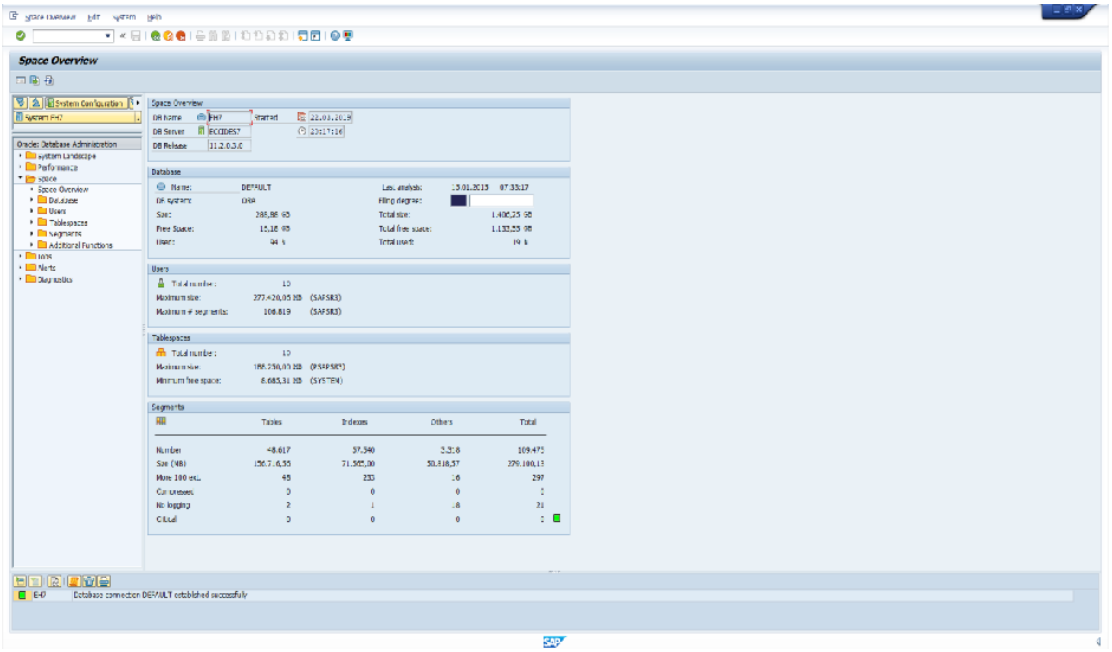

FIGURE 4.22 DB02

CHAPTER - 5
REMOTE FUNCTION CELL

5.1 REMOTE FUNCTION CELL

RFC stands for 'Remote Function Call'.
Basically RFC is used to sent and receive data from different SAP system. If one SAP system wants to connect with the other SAP system then it is required to create a RFC connection first.

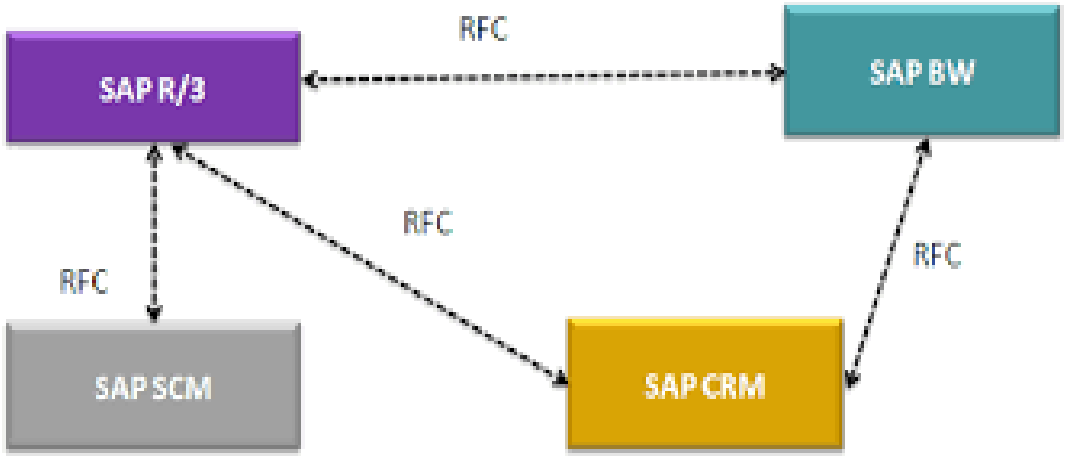

FIGURE 5.1 RFC

In fig. 5.1 Here shows if SAP R/3 wants to sent or receive any data with SAP SCM or SAP CRM or SAP BW then it have to create RFC. Same goes between SAP CRM and SAP BW.

5.2 CREATING RFC

Step 1) Firstly, we have to create a client.

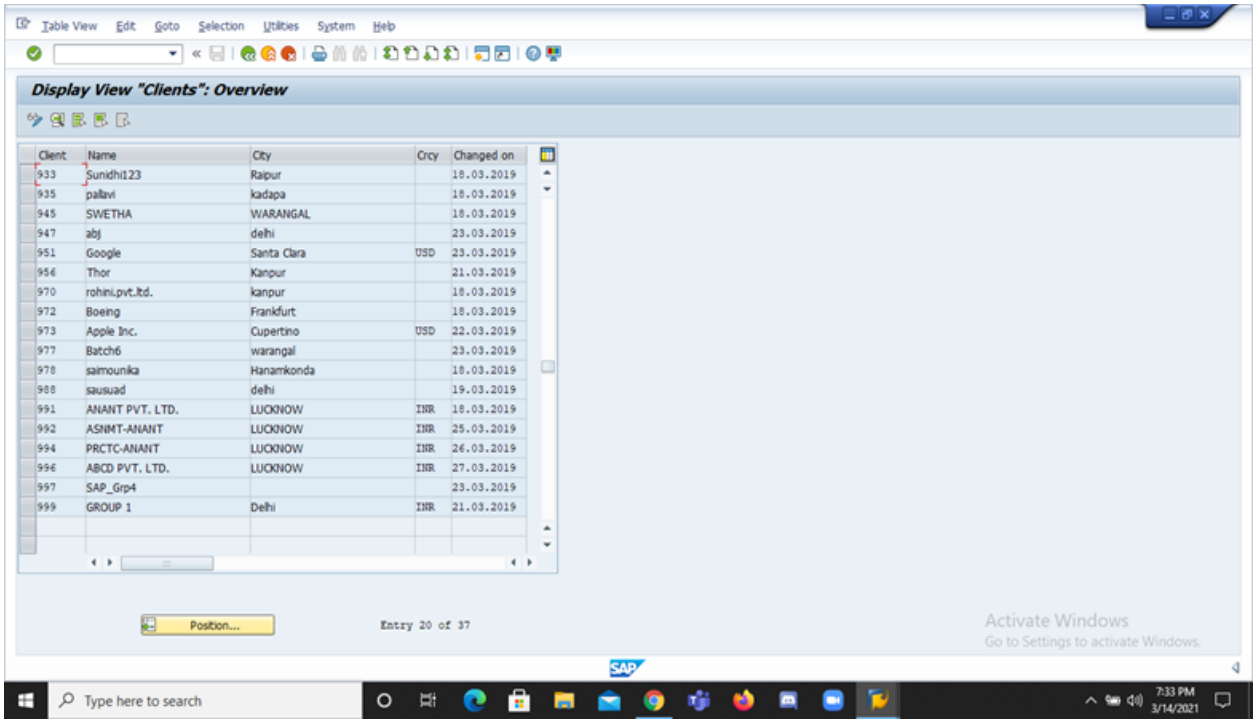

FIGURE 5.2

Step 2) After that we have to login the system which is supposed to be on the receiving end of the RFC.

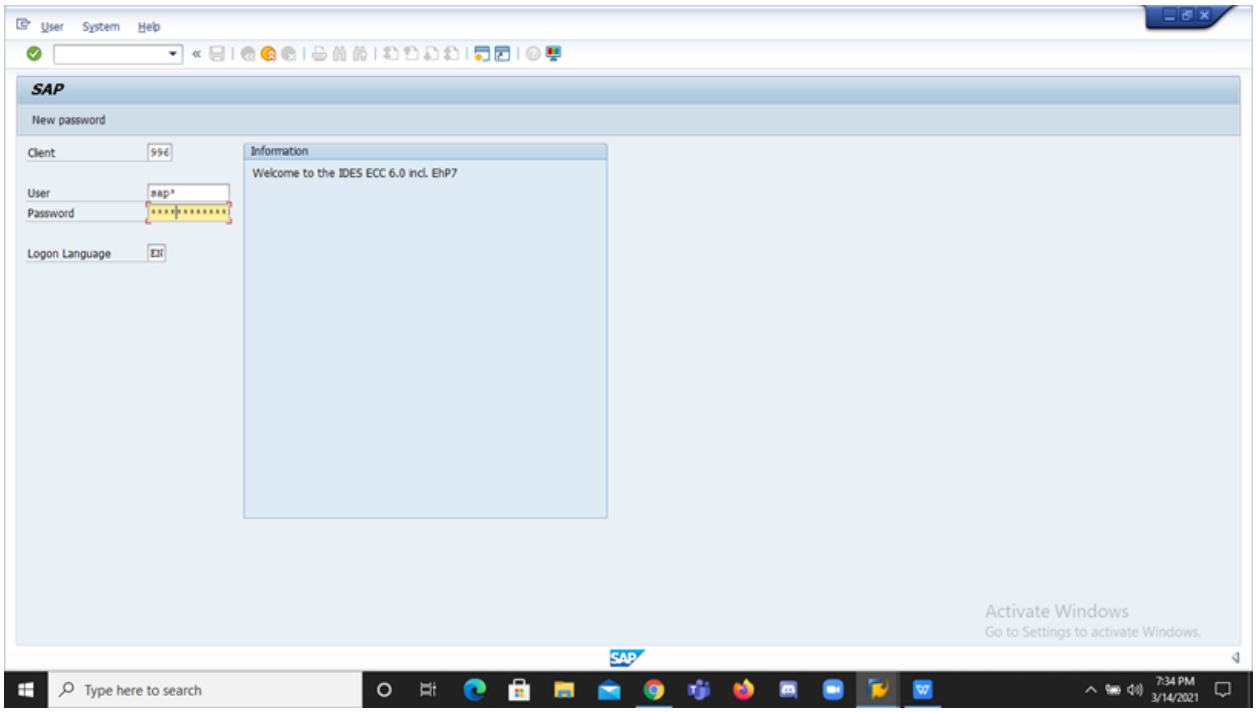

FIGURE 5.3

Step 3) Then, we have to create RFC connection.

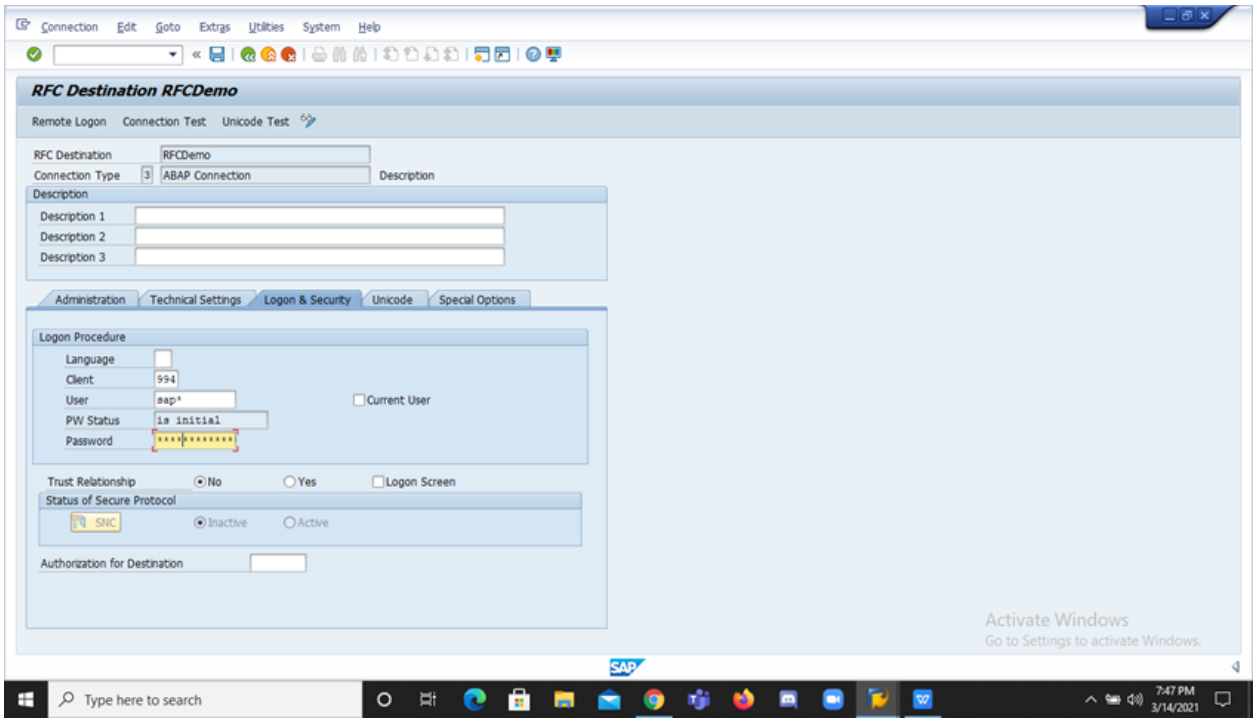

FIGURE 5.4

Step 4) After all this we perform the connection test.

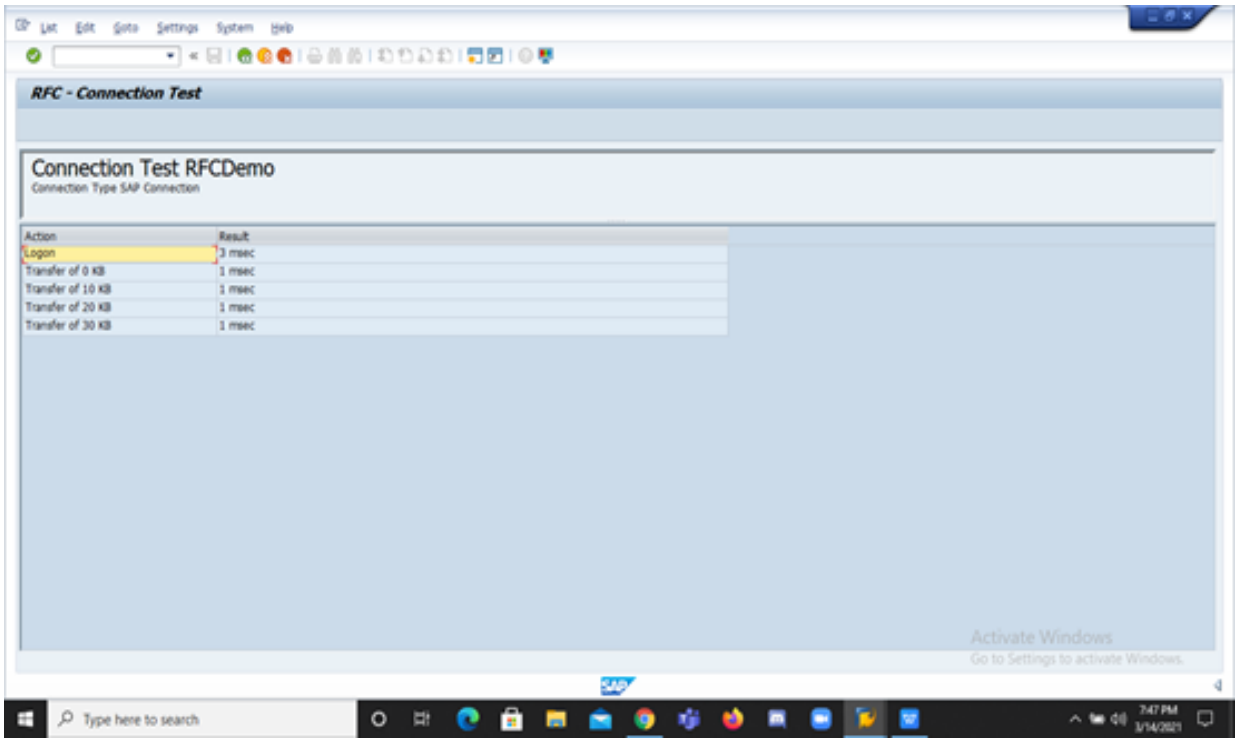

FIGURE 5.5

Step 5) Then we proceed to perform the Authorization Test.

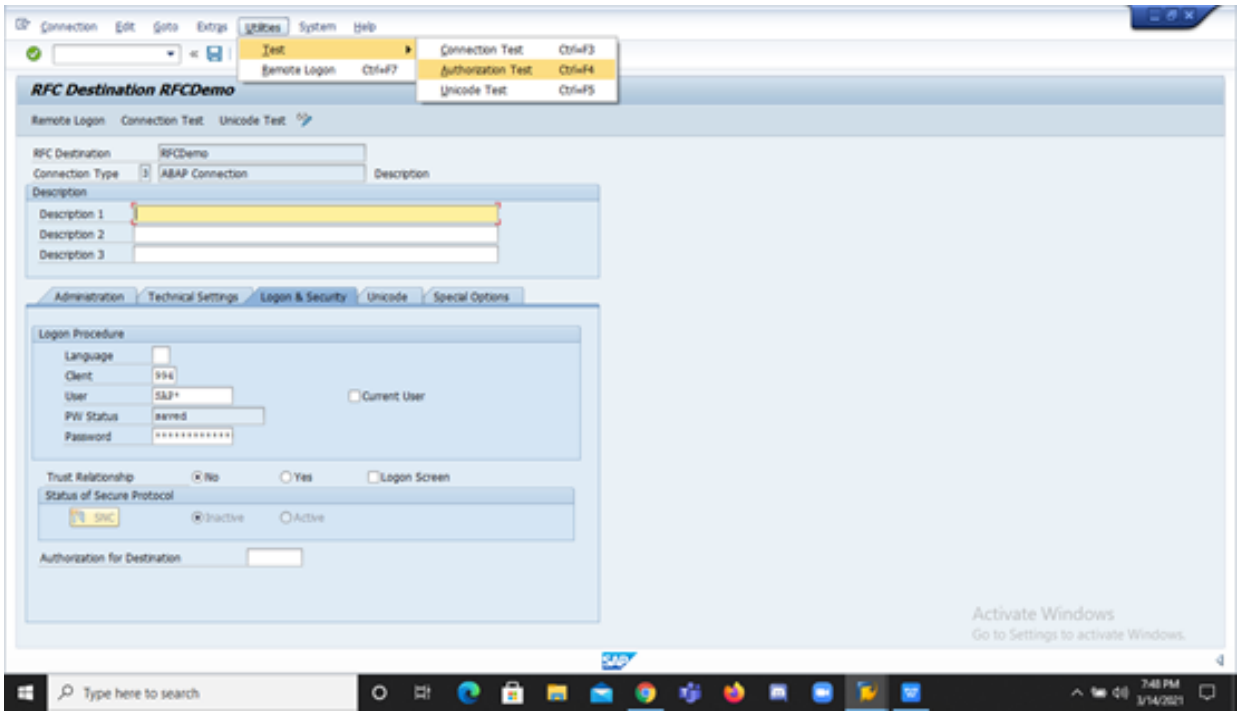

FIGURE 5.6

Step 6) At the last when authorization test is passed without any errors then we can confirm whether the RFC connection is successful or not.

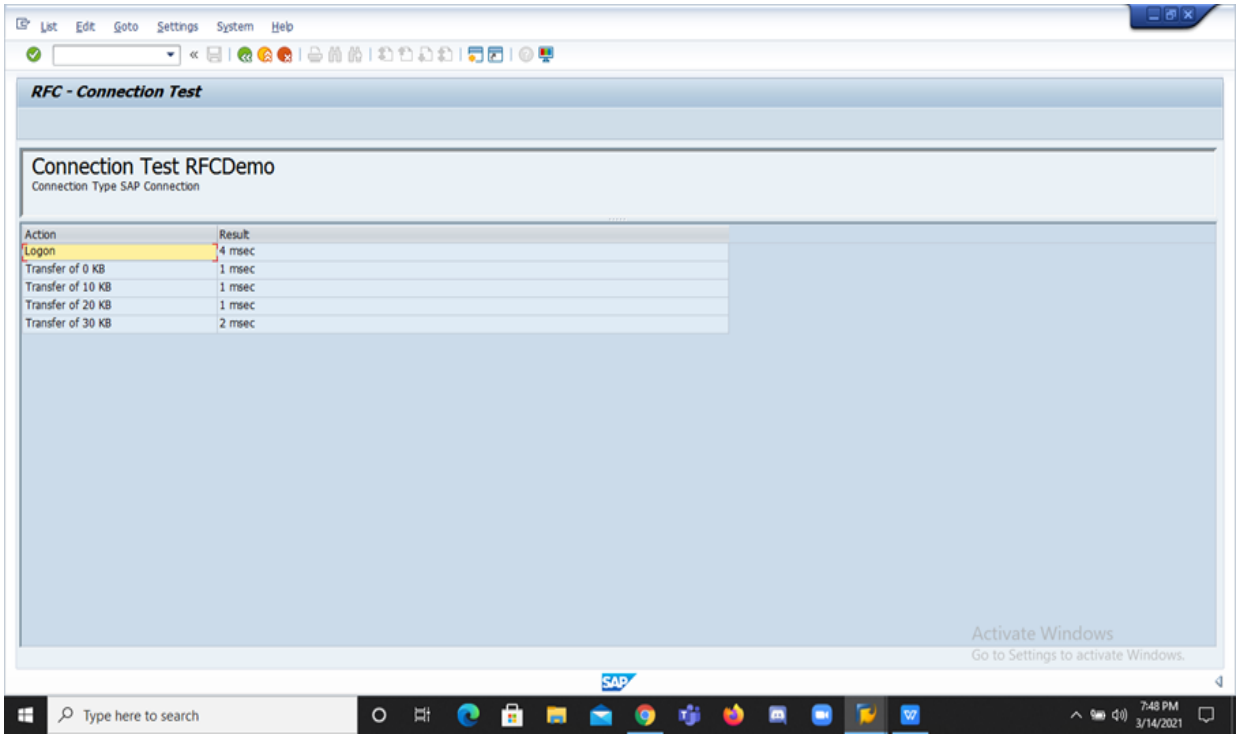

FIGURE 5.7

5.3 TYPES OF RFCs

Four types of RFCs are there.
1. Synchronous RFC
2. Asynchronous RFC
3. Transactional RFC
4. Queued RFC

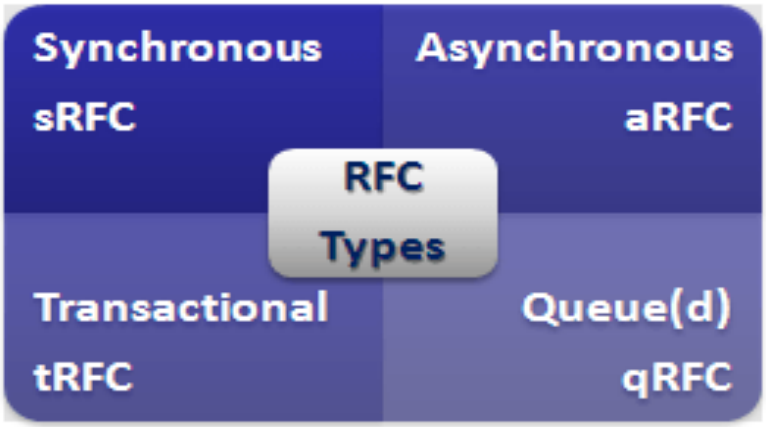

FIGURE 5.8 TYPES OF RFC

5.3.1 SYNCHRONOUS RFC

It connects SAP web application server with SAP GUI.

5.3.2 ASYNCHRONOUS RFC

It is used for processing parallely and communicating between systems.

5.3.3 TRANSACTIONAL RFC

It is used for secure communication between systems basically, it is the extension of Asynchronous RFC.

5.3.4 QUEUED RFC

Basically it is the extension of transactional RFC and used for defining preocess sequencing.

5.4 ADVANTAGES

1. It can easily convert format of the data.
2. To set up communication between systems it can call required functions.
3. The errors occur in process of communication can be handle by this easily.

CHAPTER-6
TRANSPORT MANAGEMENT SYSTEM

6.1 TMS

TMS is used to deploy, manage, manage, copy development materials and customize settings in all SAP systems across the country with the development of predefined RFC Connections. This is used to export items outside the SAP source system and sending it into the intended SAP system. TMS stands for Transportation Management System.

T-code for TMS admin is TMSADM.

6.2 SYSTEM LADSCAPE

System Landscape also known as 3 landscape configuration consists of following servers:

1. Development Server (DEV)
2. Quality Assurance Server (QAS)
3. Production Server (PRD)

As it is clear by the name also that the new changes is done in DEV then imported to QAS for quality purpose. Though importing to PRD is possible only if the combination of testing and quality assurance is done in QAS.

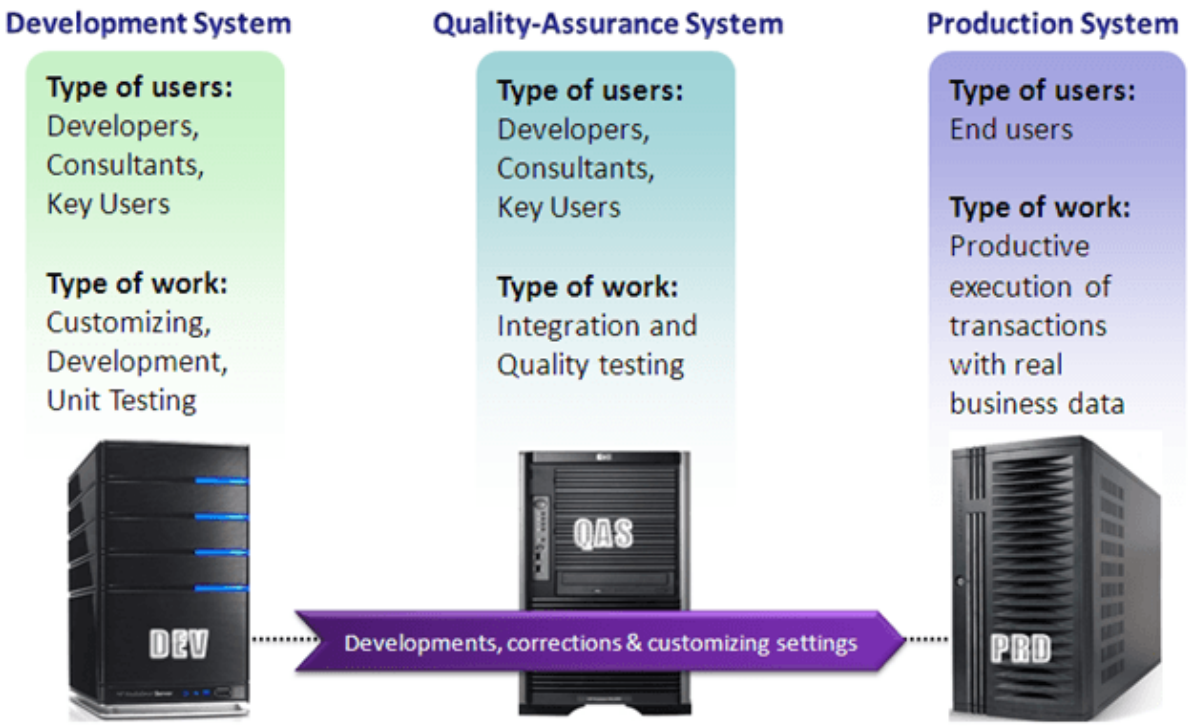

FIGURE 6.1 3 LANDSCAPE CONFIGURATION

6.3 OPERATING SYSTEM TOOLS

6.3.1 TRANSPORT CONTROL PROGRAM (TP)

TP is an SAP system used by management to create and manage transit between systems.

In fact, TP uses different tools. Basically, it costs a plan to use R3trans. However, it also provides comprehensive control of the transportation process to avoid complex system inconsistencies, which may arise as a result of incorrect sequencing.

6.3.2 R3TRANS

R3trans is an SAP transport system system that use to transfer data between different SAP systems. Usually it is not used directly but is called from the TP control system or through SAP development resources.

6.4 TRANSPORT REQUEST

Transport request also known as change request.

Standard format of change request is-

<SID>K<NUMBER>
Where,
SID stands for System ID
K stands for fixed keyword
Number stands for anything whose range start with 900001
Example- DEVK900056

TWO STATES OF TR

1. Modifiable
2. Released

TWO TYPES OF TR

1. Workbench Request : If there is application table which include master data and transactional data then we use workbench request.

2. Customizing Request : If there is customizing table which include maintenance only by customer nothing else then we use customizing request.

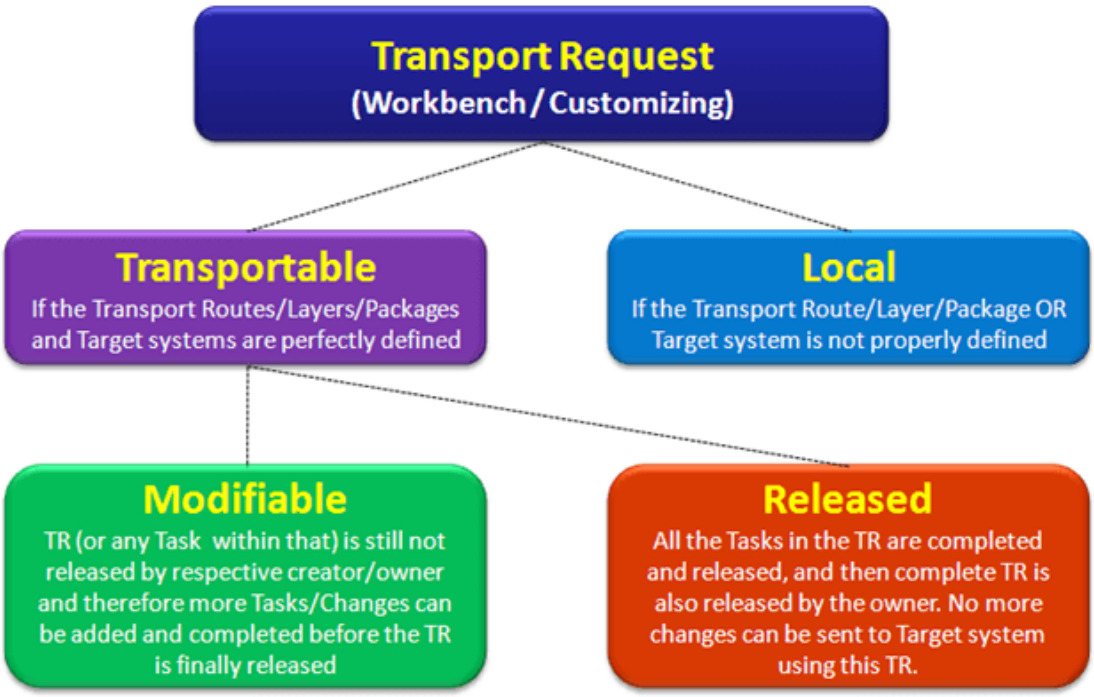

FIGURE 6.2 TRANSPORT REQUEST

CONCLUSION

During 45 days of industrial training at DXC Technology in collaboration with Manipal and IIHT, candidates were provided with brilliant learning videos as well as live training sessions to make them comfortable and handy for the evolving future of work and the working environment of the industry. These programs were designed as a self-paced learning program, enabling the student to plan and learn in their style. The program also connects with Subject Matter Experts to get professional guidance on any queries during the learning journey.

I can conclude that through this industrial training, I have acquired a lot of exposure in the SAP EAO and am now more ready to face the challenges while working for the industry. This training has also helped me to get my skills up in the fields of learning through practice. Overall it was a good experience while communicating and learning throughout the training.

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- https://www.guru99.com/what-is-sap.html
- https://www.guru99.com/introduction-to-basis.html