EVENT MANAGEMENT SYSTEM

A Project Report

Project report submitted in fulfilment of the requirement for the degree of Bachelor of Technology

in

Computer Science and Engineering

By

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Under the supervision

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to

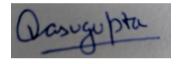


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CERTIFICATE

I hereby declare that the work presented in this report entitled "Event Management System" in fulfilments of the requirements for the award of the degree of **Bachelor of Technology** in **Computer Science and Engineering** 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 Dr. Amit Kumar Jakhar . The matter embodied in the report has not been submitted for the award of any other degree or diploma.



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This is to certify that the above made statement made by the candidate is that to the best of my knowledge.

J1/2

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ABSTRACT

Customer Relationship Manager (CRM) is a technique to gather and store your entire client's data and information at a single place for better access to information whenever required. CRM is not only a technique to manage client's data but let's your client to further manage his database too. Salesforce is the world leader in CRM technology from past seven years. This Project is based on Salesforce technology to manage and run business at ease by depicting how to manage any event organised by any organisation. The systems help you register participants and makes the whole process automated. The System is so designed such that any person with technical knowledge can just provide the excel lists of participants and the file directly gets mapped to the data in salesforce standard as well as custom objects.

Moreover, the technology is completely build on SaaS cloud hence removing the need of any kind of special hardware and software requirements needed at clients' end.

CHAPTER 1

INTRODUCTION

1.1 Cloud Computing

Fundamentally, it's a sort of technical facet that shift redistribution of information stash, computer's power and the software from the client's toward service provider end. In the cloud computing, clients can have access to it by any internet connectivity just by signing in. Third party firms that provide cloud services host the data and other related software's. It is available on secure data centres that are spread all across the internet accessed areas. Instead of using their hard drives, users can make use of this facility. Such use enables to get processing power, and sharing of facilities. The other advantage of cloud computing is that it regardless of the location and device of the user, it allows secure mobile deice access to the user.

Cloud computing is marked by its various advantages. Cloud computing is very effective and new in technology. It is also a means to help in the way of distributing the computing resources in particular. Based on subscription pack, the user gets services accordingly in cloud. For example: Normally User will be charged a regular amount rather than buying licenses at once. Which he used to do earlier. Third parties are chiefly involved in providing software's and answerable for are updated constantly so as to provide concentrated performance and security. Another added advantage of it is based on distributed power control as a resultclient can request for additional storage at whatever time the business spikes or whatever the user in need of. Even, large number of person are allowedentrée in shared package to collaborate together in real time remotely. Thus, this technologycan prove to be a new tactic which helps in adding advantage to technology in near forthcoming.

It is very hard to imagine the times when the generation uses the computer and buys extra power and storage for keeping the bundle of files. Thus imagine a situation, an educational institute run demands the record of numerous students studying. But with the emergence of cloud computing, it is not a tedious task now.

Cloud computing has modernized characteristics of prior workplaces:

- Huge servers It is no longer required for organisation to have airy rooms to support servers.
- Dedicated in-house IT support Tech ability is valued but no requirement for specific technicians for recompense the system. Tiresome chores such updatingpe is regarded as a history.
- Memory devices We no longer need physically make copies of data in HDDs, or pendrives.
- Location based access People can now work from home. Cabin offices and cubical aren't necessary specially seeing the Covid-19 situation. Employees can access when travelling distantly as they can do from the business' headquarters. Data is available from anywhere now.
- Obsolete software One of theforemost expenses compromise of couple
 of bucks to purchaseupdates of obsolete software. Many times these update
 caused problem and system hangs and engineer needs to be called upon.
 Big firms can only deployengineers for fixing bugs, small firms continued
 to suffer.
- Data loss —Terror of losing the data always haunted the managers and higher ups. Any technical miss happening may result to a completely wiped out data and rebuilding from the scratch is to be done.
- Replica files— There were instances where the data was found in duplicate files. Sometimes it becomes very much difficult to find in which file was

the last update made and many a times there was mix up of old and new files which created a chaos.

Software were complex in pre cloud computing age. Amount along with diversity of software and hardware neededwas discouraging. Firms required an entire group of experts to mount, run, check and update software. Thus, it reduced the human labour and interdependence.

At that point when increased exertion across tons' amount of software, it's anything but difficult to perceive a reason why truly just the significant firms having great IT divisions' grew the personalized solutions as desired. Medium size firms weren't in the picture. All now is possible due to intro of cloud to the globe.

This proves to be much accountable as a particular business firm or an employee do not have to handle the hardware and software to handle the data and also "where to store data" thus aiding in growing the responsibility of software providers like: salesforce.

Cloud-based apps are less costly and can up and down during the weeks. Browser is all that is necessary to access.

Firmsdeployedvarious types of applications to support various activities within cloud. The most important example is Salesforce, which was a forerunner in providing cloud-based software. Global leader major firms shifted apps on cloud afterward thoroughly checking the safety and dependability of Salesforce.

But cloud nurturing acceptance and attractiveness, countless firms are marking server specific apps and facilities to be cloud based. At all times going depth in assessing to cloud aidsdo remember the service/products may turn out to be a false cloud also.

The information on cloud is kept on a network of server's. Cloud Service Provider upholds server farms around the world. This is done so as to avoid any single point of failure and any data loss is restricted. A server farm is a cluster of computers performing as servers and held together at a single place. Server farms are also called a server *cluster in various locations*. In a business network, a server farm may accomplish services as granting centralized access control, backup for workstation users and file sharing. The servers might have specific OS or a public operating system. Another interesting feature is that it may also provide capacity in balancing in case of many server requests. In a server farm, if one server fails, a different server can act as backup which proved an advantage to cloud computing.

1.2 Cloud Deployment Types

Clouds are the distinct kinds. Also it is stated that each person require different cloud type. Hence to aids customer many sort of clouds are build and customer is free to choose.

Initially customer decides which kind is correct for him. Diverse types of cloud are classified below:

Public cloud — It is provided by outside vendors. They give all sort of facility like additional power, space for data. These can be both paid and unpaid services. User just uses the facility and firm is responsible for all kinds of services. E.g. Google Colab is an example of this kind of service. We can train our Machine Learning and AI models on it for specific period of time.

Private cloud — As name proposes, it is mainly used by global leader firms. Their own engineers manage and run this cloud. It is not available outside the firm and only accessible to its employees.

Hybrid cloud — It is collaboration of the previously discussed two clouds. Benefits of both can be entertained. Information can be passed from one to another cloud.

There exists fundamentally three sorts of distributed computing administrations, some of the times it is referred as cloud computing stack.:

- Infrastructure as a Service: All sorts of services are provided by the supplier to the firm. Services charged is when you want more functionality. Firms are free from dealing with servers and storage. E.g. Amazon EC2
- **Platform as a Service:** Provide platform to people which help in making work go quicker and easier. All type of services handled at backend are work of the PASS provider. It gives many built in tools for making apps develop faster. E.g. Azure by Windows.
- **Software as a Service:** It is the merger of the two technologies discussed above. It provide already built in applications for direct use via internet. All the service related issue is the work of the service provider. E.g. Office by Microsoft

1.3 Customer Relationship Manager

Customer Relationship Management, written off ascommercialas well asmodernism discipline which helps the customer/client in distributing the particular kind of software. Which further helps in building the fiduciary relationship b/w client and provider. It is also justified as all the demands are met of the client and thus helps in building the relationship with the client which in next proves to be a virtue in general.

Client Relationship Management isn't just about organizations gathering information about their clients, yet it is additionally about using that information to turn out to be the more firmly lined up with the client. CRM must be centred around adjusting the business procedure with client methodologies utilized by the organizations.

It practices IT to construct a cross-functional information arrangement named CRM information system that includes incorporates and automates a organisation different customer-related business processes in sales, marketing, The CRM systems consists a group that gather customer information from all customer trace points (what the client is using or accessing) like outlook, telephone, fax etc. CRM helps companies in collecting data, pinpointing customers who have been treasured over a period of time, add faithful clients by proposing products and services which are customized. This brands customer service cost-effective and gaining of similar customers easier.

But a CRM, however may also damage long-standing client relationships. The leading problem is that the assumption that CRM may be a software tool that drive manage the client relationship of the company.

1.3.1 Types of CRM

Currently, three major types of client relationship management systems are there. They are called operational CRM, analytical CRM and collaborative CRM that are being used worldwide.

Operational

It aids office firms which includes direct collaboration to customer via nay communicating channel. These channels can be faxing, call, outlook, etc. The specifics of each teamwork with shoppers, including their prerequisites, proclivities, topics to chatand are put away in the customer history. It later helps in recalling what was discussed.

Along these lines, it presents a bound together perspective on clients over the firm and over all correspondence channels. Instances of operational CRM applications client service and maintenance, computerize of other functionality etc.

Analytical CRM

It empowers to analyse client information produced by operational CRM applications, comprehend the clients' conduct, and determine their actual incentive to the firm. This assists with moving toward the clients with relevant data and recommendations that fulfils their requirements. The analytical client relationship manages applications that utilise explanatory advertising instruments like information mining to extract important data like the purchasing behaviours of the clients, target market, gainful and non-profit clients, and so on., that help to improve execution of the business.

Collaborative CRM

It permits modest joint effort with clients, suppliers, and colleagues and, in this manner, improves agreements and customer benefits in complete advertising stations. The significant objective of shared client relationship management applications is to enhance the nature of services given to clients, along these lines expanding the clients faithfulness. Instances of cooperative CRM applications are partner relationship management, customer self-service and feedback, etc.

1.4 SALESFORCE

Salesforce is a service as a software (SaaS) form of cloud offering organisation which concentrates on "client relationship management". Salesforce's administrations let organizations to utilize cloud innovation in healthier association along clients. It had gotten sales leader for client achievement and assists organisations with tracking client activity, market to clients and many more administrations.

Primary service offered is the management of customer data along with other products offered, centers around serving firm in client maintenance,

guardianshipofclients happy, searching official client gaining, providing corporations bits of knowledge of clients.

Itpermitscorporations predicttrajectory analytics, client achievement backing, client grievances along with distinct CRM capacities. It doesn't halt a nip of distributed storage and access any place the clients are.



Fig1.1: SalesforceCrm

Salesforce is the most rapidly growing CRM tool at present. It is very interesting to know that it has been rated as the best CRM provider for the seventh consecutive year. It has doubled its business in the past couple of years and has acquired firms for future business.

1.4.1 Cloud Services:

Sales Cloud – Itvests customer to deal with your association's commercial, promoting and client care aspects. The business cloud is advantageous for those whose association is B2B and B2C.

Marketing Cloud – gives a platform for marketing one's product and services. It provides special features and facilities to the market department of the user's organisation for offering them reviewing the client behaviour. It can track all sorts of data about the client available on the internet hence providing the complete tracking of people.

Service Cloud – Administration is an assistance podium for the firm customer care and reinforce team. This gives topographies as trackingan grievance and social frameworks administration module todiscussion on analytics. Hence encourages the negotiators for taking care of customer gives faster, yet additionally offers the customers access to reactions. Thusly, when a particular customer asks the requests, it is saved and can demonstrate beneficial to the customers who have the similar kind of requests along these lines taking care of issue all alone.

Community Cloud – Cloud for users to discuss any problem faced and share solutions or ticks to avoid particular kind of glitches. This cloud offers to post a question, polling, posting of images and links by the users and make it available to restrictive and public users.

Analytics Cloud – Analytical reasoning provides a commercial information stage to user relationship with working gigantic raw data records, make outlines,

reports and other vivid depictions of data. This updated aimed at compact access and information portrayal facilitated along other cloud fogs.

App Cloud – Make convention applications whichprocess within Salesforce stage, the Salesforce App Cloud is used. It deliverassembly progress instruments aiming at aiding the user build app.

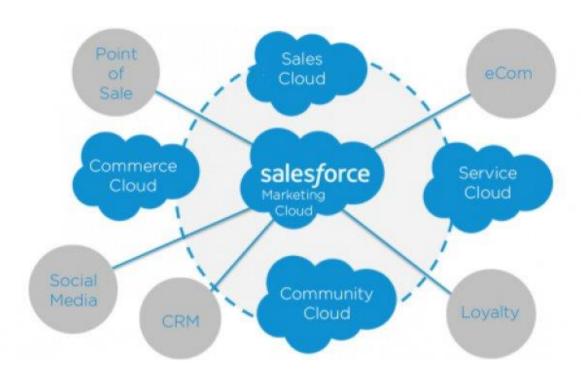


Fig1.2:Salesforce cloud

IoT Cloud – Exactly an any affiliation required storage technique IoT information, organization of Internet of Things is utilized. This stage attempted in gaining enormous capacitiesworth informationmade in contraptions, detectors, locales, apps, consumers, associates etc. After tolerating information, stage begins exercises providing user consistent responses.

Salesforce Health Cloud – If Health IT firm necessitate a CRM framework that merges pro lenient relationship and record the board, by then Health Cloud is in

a tough situation. Through the patient profile it can support adjusted relationship by organizing information from different data sources.

Supplementary facilities provided are:

Chatter – Chatter is an enterprise partnership stage offered by Salesforce that enables the employees to chat and discuss work related topics in Salesforce. Chatter can help in driving benefit by interfacing delegates across globe. Similarly aids for data divisionamong workplaces with affiliation/dissimilar affiliations.

Salesforce1 – This can help it's inventor to exchange one's app to another developer with APIs. They are parts made by developers for universal purpose and refers to prebuilt programming code components.

1.4.2 Salesforce technologies

Salesforce provide both the "point and click" and the programming method to approach a solution for any corporate problem.

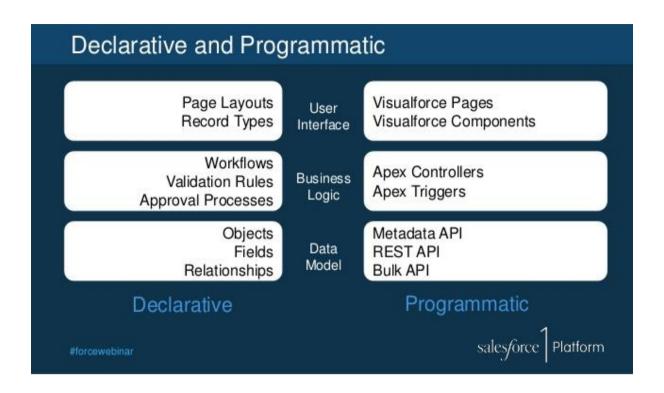


Fig1.3: Approaches to development

Let' look at the programmatic languages in salesforce:

Apex – It is programming language for salesforce development as an alternate to point and click methodology. All that can be done via declarative way is also functioned by apex language for those who prefer a problematic way. Moreover, apex can perform certain customized operations which point and click do not offer.

Visualforce – It is the web development of salesforce. The pages on which data is displayed can be customized according to the clients demands with the help of visualforce. Moreover, what data to display in which corner is also handled by visualforce page.

CHAPTER 2

LITERATURE SURVEY

1.Data Model: -

In Data modelling we make the data much more readable and presentable for humankind by arranging in forms of table. Databases are parallel to keeping data in a spreadsheet structure where columns stock the attributes/features and the rows stock the data of each individual record.

Salesforce consider catalogue table as objects, properties represented by fields and records are taken in place of data lines. Hence as a replacement for excel sheet, Account obj with properties and a data about accounts as records is taken to consideration.

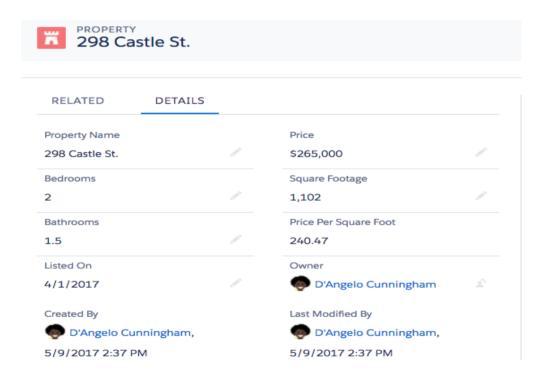


Fig 2.1:Salesforce record

1.1 Custom and Standard Objects

Salesforce has objects of various forms with a few being Standard, Custom, Big, Platform and External objects. Among which STANDARD and CUSTOM are most common forms.

Standard Objects

Standard Objects are Salesforce platform built-in objects. They store the company

data, info of their employees and any new firms we can do business with. These

are Shared business entities which used in Salesforce to keep data organised.

Custom Objects

These are objects with which you can save only parts of the data which you

require important to a certain firm. For instance: If a Property dealer wants to

construct a custom property object that will able to store the details about of house

the firm is offering to sell.

Objects representsdata stores in vessels and additional impart special features.

E.g.: Salesforce itself constructs pages for the user interaction when a custom

object is made.

Fields

Types of fields are:

Fleld Type	What Is It?	Can I get an example?
Identity	A 15-character, case-sensitive field that's automatically generated for every record. You can find a record's ID in its URL.	An account ID looks like 0015000000Gv7qJ.
System	Read-only fields that provide information about a record from the system, like when the record was created or when it was last changed.	CreatedDate, LastModIfiedById, and LastModIfiedDate.
Name	All records need names so you can distinguish between them. You can use text names or auto-numbered names that automatically increment every time you create a record.	A contact's name can be Julle Bean. A support case's name can be CA-1024.
Custom	Fields you create on standard or custom objects are called custom fields.	You can create a custom field on the Contact object to store your contacts' birthdays.

Table: Fields Types

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To each field an information type is assigned. Field type shows sort ofdata stored. A handful different data types are provided in 'salesforce' some of them are: "checkbox", "datetime", "formula" — which has answer generated by mathematical computation user provide e.g. formula to find no of days from date of joining firm, etc.

1.2 Object Relationships

These are aextraordinary column which links one "object" to other by creating a dependent relation between the two. The two core kinds of obj relationships are "lookup" and "master-detail".

1.2.1Lookup Relationship

It connects one obj to another obj jointlyin order to make user "look up" on primary obj throughlinked obj in secondary obj. Lookups are commonly used to refer commonly shared data, such as reference data. Lookup relationships are "one-to-one" otherwise"one-to-many". E.g.acc to contact relationship represent"one-to-many" as individual acc can be having multiple contacts in relation to it. One-to-one relationship is between the Property object and a Home Seller object.

1.2.2 Master-Detail Relationships

This type of relationshipis strongly attaches one object to another as compared to the "look-up" which are sort of informal. Primaryobject represent master while secondary object represents detail. Particular behaviour of detail side of object is managed by the master, justas view access for get info of detail object. The detail record will not be able to exist without the master and inherit its sharing rules from its master. At the maximum of two Master Detail Relationships one object can only have a single.

For example, If the landlord of a home desires property out of sales and the firm managing the sale doesn't want to retain the offers made on that property. In this scenario master detail relationship is effective, as removing property will erase all the offers from the system. Here master is the Property Object and detail is the Offer object. When the master object is deleted, detail obj is alongside erased too.

1.2.3 Hierarchical relationship

Hierarchical relationships are a different sort of lookup relationship. The core difference between the look and hierarchical is that it is available on custom user object. Hence used for creating management chains between clients.

1.3 Schema Builder

Schema Builder is a way that lets you picturize and edits your data model. It's valuable for architecting and understanding complex data models where multiple relationships exist between various objects.

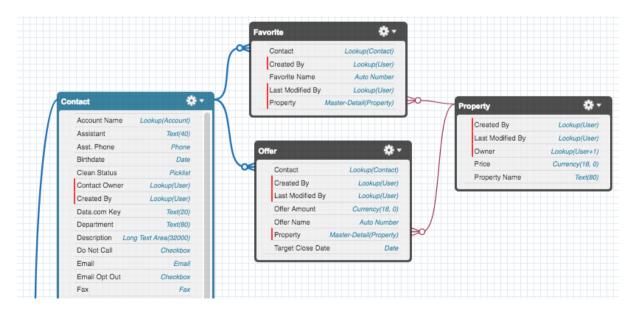


Fig 2.2: Schema

2.1 Account & Contact

Account along with contacts are the standard object that keep statistic information about your clients. Acc represent firms with which you have your business relations, and contacts are employee of these firms. These are associated to various standard and custom objects, that crafts these objects as core vital objects.

2.1.1 Accounts

If user's firm is doing business owned by one single individual, for e.g. just one lone contractor, unique type of acc referred as "Person Account" is set to use. Here are few Properties of a "Person account": -

- "Person Accounts" are forever ones i.e. once these are generated any "turned-on" it can't be undone by any means.
- One "Person Accounts" can be merged with another Person Accounts.
- Person Accounts can neither have contacts nor ansort of Account hierarchy.

When you open the account record, you will see the all information together about the company as a records associated to it, such as employee, deals in the works, service requests, uploaded documents, and much more.

2.1.2 Business Contacts

One of the supreme important things that a user needs to know about firm is who works in that organisation and way to approach them. In Salesforce, the employees of the accounts object are named as Contacts.

A contact record can have its own lists of related information, such as cases filed by certain contact, call log with that contact, business meetings held.

2.2 Social Accounts, Contacts, and Leads

In the event that your firm is utilizing the News feature and the "Social Accounts", Contacts, or the Leads facility, user can recognize what the accounts, contacts, or leads are posting on any social media account.

User can't see anything about an account or contact that wouldn't normally be available to him/her while using any of the social platforms. Still the user can connect to the leads and accounts on social media if the profile is private and can anyways see the info that is public to everyone.

It is the job of the salesforce administrator for your respective firm to to enable the facility for the employees. After that user is able to utilise these account and features.

2.3Account and Contact Relationships

Relationship are of three sorts between account currently tracked by salesforce admin and the rest of people. Every kind of relationship offers a dissimilar vision to the business perspective.

1. Firms and its relation with the employee (contacts):

You can track relation b/w the person and firms in which theylabour with by associating one contact with greater than one acc (called "Contacts to Multiple Accounts"). Gaining info about any contact with an indirect relation to a firm can affect the deals.

2. Clients and its relation to other clients.

The account ladderdepicts with which firms Cloudy Computer is associated with. Perhaps Cloudy Computers might have a child organisation that your firm is already handling.

3. Clients and its relation with their colleagues.

At last acc teams show which marketing representatives are marketing for Cloudy Computer dealing and ads. With help of acc teams it will help userorganize and get in touch with the marketing representative quickly with much hassle.

2.3.1 Contacts to Multiple Accounts

Your contacts may do work with more than one company. A corporate holder possibly will have multiple firms, and client would have worked on behalf of multiple firms. These relationships may be complex, but monitoring them is somewhat effortless with salesforce.

When you connect a single particular contact to various multiple accounts, user caneffortlesstrail downimportant connections b/w persons and the organisation without creating any duplicate records. The relationship rules are very simple. All contact has to be in a straight line associated with specific account. The account he is linked to will show on account name column. Trend is that contacts are most tightly coupled to firm to which they are offering services known as account.

Any other accounts related with the contact indicate indirect relationships. The Related Contacts list view will let you view current and past relationships, and to get an idea of with whom you are having conversation or with which person the admin must rather be having the conversation hence seize unique and custom details about these relationships.

2.3.2Account Hierarchies

Aman and Ram work at the Cloudy Computers corporate office in Boulder. But you see several other accounts with similar names: Cloudy Computers East, Cloudy Computers West, and Cloudy Computers Canada. In the Cloudy Computers West account record, the main Cloudy Computers office is listed as the Parent Account.

How are all these companies related? If we search our self and deep dive it will consume a lot of time.

A tree like structure of the firms can be build if the organisations are mapped to their parent firms and their child companies.

2.3.3 Account Teams

Except or until the organisation is pretty much limited i.e. small sized, there will be a high chance of possibility that multiple persons as employee will work in that respective organization represented by acc. E.g.group of the employeesworking in an organisation might have few market representative, sales manager, support provider team, support management, and salesteam for advertising and meeting desired targets. You create the sales team for accounts you own.

With account teams, you can authorize the appropriate access to various account roles. Each person on an account team might have various designationallocated to them and different lvl of restriction imposed for account access along with its opportunities/cases. For instance, the support agent can see and edit the cases tied to an account. Feature for account team isn't turned on by itself. A sales force engineer is the one who will create the role in settings and assign it to members of the ream.

In orderto speed the team efficiency related to account, user can create his personal "Default Account Team" in his personal settings. The auto Groups are an alternate way that spares you from entering similar individuals into a similar structure over a series of repeating procedures. If the same people normally work together, they create a default account team and allot them to it. Then, add the complete default team to the account of yours by clicking "Add Default Team" button in "Account Team related list" action bar. You can even make Salesforce be added to your default account team every time and to reject the use of clicking buttons.

3. Leads and Opportunities

The companies are unique, but every company wants to find, sell and have customers. To grow your channel of pipeline and make more sales Salesforce has the tools for them.

3.1 Leads

The people and the customers that are recognized as clients in the future for your business are the "Leads". Numerous leads you might gain by your existing clients which are satisfied with your services. There are numerous ways for a Salesforce user to discovery leads for his/her business. Some of the ways to reach out to them are an attractive webpage, contacting them in conferences, partner firms communicating on your behalf and many more. Information about leads will always be stored in Lead records in Salesforce.

Improved tracking, on time reporting are fewgigantic advantages of working with leads along with targeting markets with campaigns to potential clients. Lead assistance afirm to emphasise on deals which can be closed won easily. Having a separate teams of sales for the future probable clients and another team for the current, with help of leads the whole work group become much more capable of doing tasks and meeting goals easily.

Considering yourself working for Chips Inc in sales division. Your firm concentrate is on custom laptops with exceptional processing speed. A deal is going on b/w Chips Inc and Cascads enterprise to supply their employees with custom microprocessor for a big conference in San Francisco.

You freshly met a potential lead, Akash Verma, at the Cloud Nine trade show. She works at Cascade East and communicates regularly with Aman Kumar, your contact for the deal with Cascade head office. Akash is interested in getting custom laptops for her office's employees, too, and you get his business card. You quickly add him as a lead from the Salesforce app on your mobile phone. You'll follow up with him after the trade show.

By importing a file into Salesforce or through an automatic process you can add leads. For instance, a "Web-to-Lead"webpage form that collects information from your organisation website and turn it into leads by processing data.

A deal goes phases in the following depicted lvl:



Fig 2.3:Deal Phases

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3.1.1 Dive Into the Lead Record

As the user working on changing the status of a lead to closed won, lead's record is the workspace. Workspace is specially provided to user by salesforce for trail any kind of communication with potential client.

- If the lead is involved in any marketing campaigns, the campaign history list of the same will reflect the respective lead.
- To find then update information about the lead review the lead's Details tab.
- Helps with a separate space for logging call details so as to summon up what was previously discussed.
- To check the latest news for the lead's industry, use the lead's News tab.
 By Signing in your Twitter account you can find and follow the Twitter post of the future clients referred as lead's.
- The lead's Chatter tab is where you can connect with your co-workers to ask questions, seek advice, or provide information. When you create activities the Chatter feed for your record is also shown.

3.1.2 Convert Leads into Opportunities, Accounts with respective contacts

If the lead as an interest in your services and products offered by your organisation, it depicts that sale is much more probable representing the lead is qualified. Quite a few firms tend to acquire lead more rapidly. The Salesforce user. The salesforce user is the assigned personnel for the task of qualifying the potential client and changing lead for his/her firm.



Fig 2.4:Converting any Lead

User can change the record into an opportunity when you qualify a lead. A lead is said to be closedwon/closedlost when when you successfully won lead or is cancelling completely by the potential firm you were looking forward to do business with. This turns into a opportunity later when it's category is assigned to "closedwon".

In case of transformation of any particular "lead", admin will use the information stored in the lead record to create a business account, a contact, and an opportunity. If the person accounts are enabled and the lead record doesn't have a company name, then the lead will get converted into a person account and an opportunity.

3.2 Opportunities

3.2 Opportunities

Currently processing deals are termed as "Opportunities". Administrator of your firm's salesforce department create opportunities for standingacc and other way is toqualify and convert any particular lead in Salesforce.

3.2.1 Stages of any Opoortunity

While functioning in sales, the person is supposed get insights which deals normally advance as that of the tentative compared organisation beforehand it is regarded asconfirmed. User will grow further assured and assertive toproducing any sale when the deal moves to forward stages. An "opportunity" moves from a highly interconnected stages connected into various tasks that are processing, which help in determining likelihood to sale finishing.

Phases for opportunity are.

- Prospecting
- Proposal/Price Quote
- Negotiation/Review
- Closed/Won
- Closed/Lost

Salesforce helps in computing the probability analysis for any sale made by a particular firm based on the stage of the deal. Each stage is linked with a probability of the deal being "won". Probabilities are used in generating predictions for future analysis.

3.2.2 Roles for Contacts

Opportunities have roles associated with contacts. These roles valuable because they convey to user which "contact" he/she trading alongside conveying about in what way every contact is associated with any sort of particular "opportunity". Contact roles are used to association of account related to opportunity from contacts.

4 Reports and Dashboard's

4.1 Report

A collected and organized way of representing the necessary information (opportunities or accounts) which follows a certain norms defined by the user (referred to as filters) is called a Report. The reports are much greater than simple lists. To receive the data you want, you can group, filter or do math on records and even graphically represent it!

Each report is contained in a folder. Report folders decide how reports are acquired and who can access them to view, edit, or manage. The folders can also be public, hidden, or shared. User is the one that's responsible for controlling all the information present within a specific folder, consents, and any social grouip, boundaries and sort of liscene. User has the right to create any folder and make it accessible to his/her complete company to view the data present in it. There is also option of going private on order to make the contentsaccesible to the user who creared the folder in the first place and no other employee can get the details ab that data from any source to keep the information more secure, reliable and confidential.

4.1.1 Report Type

A template that makes reporting easier is called a report type. Fields and records that are being utilized while constructing report are purely depend on the type that user choses for the report. Which inturn depends on the connections between a primary object and its related objects. E.g. Chief obj is the contact and the tributary obj is the acc or more sort of relatefobj in case of a report build on acc and contact.

Report show the chronicles which ensure norms as described in the filter sections of respective page. Salesforce gives a collection of previously made standard sort of reporting techniques. If user is unable to locate the fields his firm want? Then there is an option for build a userdefined typethat will contain specifically what the firm wants and no other additional functionality which is not required at present but is an optiom provide to add later as per the demand.

Every single report type will have a primary object relationship and a field layout.

The object relationship will decide which records the report type is going to include. Standard or custom Salesforce entities are objects like opportunities, accounts, and products. Every object relationship states a primary object, like opportunities, and one or more related objects as an option. If only a primary object is specified, your report type will have only records for that object. If a related object is also specified like products, then your report type will have primary objects with (or without, depends on the configuration) related objects. Considering the case, a report type Opportunities using Products comprises opportunity records having a minimum of one product record associated. On appending a related object here's how you can configure a report type's object relationship:

- **Primary with related object**—Refunded records are the one where primary object has at the least one related object record. In our instance of Opportunities with Products, the only records that would be shown on the report would be the opportunities that have at the least one related product record.
- **Primary with or without related object**—Records reimbursed are the one where the primary object might/might not have a related object record. If custom report type has created with Opportunities with or without

Products, then opportunities would be demonstrated if they have a related product record at all.

Maximum of four related objects are supported and each one is "with" or "with or without" discrepancy.

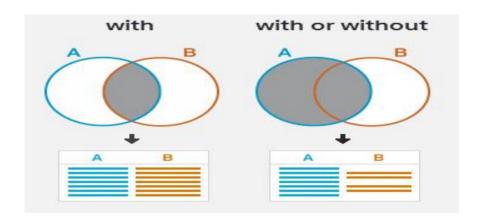


Fig 2.5:Related Objects in Reports

4.1.2 Report Filters

If report builder used to ask query about the information, filters/logic, it will allow you to get more specific and row limits will help you limit the answer you have received.

Report filters are shown underneath:

Filter Type	Description
Standard Filter	Standard filters are applied by default to most objects. Different objects have different standard filters, but most objects include the standard filters Show Me and Date Field. Show Me filters the object around common groupings (like "My accounts" or "All accounts"). Date Field filters by a field (such as Created Date or Last Activity) and a date range (such as "All Time" or "Last Month").
Fleld Filter	Fleld filters are available for reports, list views, workflow rules, and other areas of the application. For each filter, set the field, operator, and value. With tabular, summary, and matrix reports, you can drag a field from the Fleids pane to the Filters pane to add a report filter.
Filter Logic	Add Boolean conditions to control how field filters are evaluated. You must add at least 1 field filter before applying filter logic.
Cross Filter	Filter a report by the child object using WITH or WITHOUT conditions. Add subfilters to further filter by fields on the child object. For example, if you have a cross filter of Accounts with Opportunities, click Add Opportunity Filter and create the Opportunity Name equals ACME Subfilter to only include those opportunities.
Row Limit	For tabular reports, select the maximum number of rows to display, then choose a field to sort by and the sort order. You can use a tabular report as the source report for a dashboard table or chart component, if you limit the number of rows it returns.

4.1.3 Filter Logic

Put on filters built on conditions is called filter logic.

Operator	Definition
AND	Finds records that match both values.
OR	Finds records that match either value.
NOT	Finds records that exclude values.

4.1.4 Report Formats

Report Format	Primary Use Case	Supported In Dashboards	Report Charts Supported	Bucket Flelds**	Formulas**	Cross- Object Formulas**
Tabular	Make a list	✓*		1		
Summary	Group and summarize	1	1	1	1	
Matrix	Group and summarize, by row and column	✓	✓	✓	1	

- **Reports in form of tables:** -They depict easiest as well asfirmesttechnique to give an insight of the information user want to look at once. It is comparable with excel sheet and involve of just awell-organized container for fields as columns, along also providing space separately as rows which picturise the records. This type is mostly put toaffect with tasks such as creating a mail table.
- Reports in form of summary: -These compare with tabular format, however too provide you merge the information depicted in rows to generate a collaborative result, picturise over-totals, alongside creatingdiagrams. Many more options are given by summary reports for organizing the data, and are of good use in dashboards. They represent mainstays in report and most people discovery their data to be shown in alignment to the arrangement shown in them..
- Reports in the form of Matrix Representation: -They help the user into grouping the information with the help of rows as well as columns. They depict highly time inefficient to format, howeverdeliver clearest interpretation of the information. Hence the question arises thatinn what case someone should go for a report based on the matrix type. It is based on, whether he/she is seeking aformat that provide all the information that data contains in just one look and one does not want to dig too much deeper, particularly if somewhat business queries are likegetting overall revenue, total of product in market being sold by the salesteam, in these cases report with matrix representation format is definitely the choice and way to go forawrd.

4.2 Dashboards

A graphicexhibition for crucial metrics along with future course shown by processed information for the user's organisation is called a Dashboard. A one on one relationship is what exist among a dashboard component and an individual report. For every existing component on a dashboard, there exists only one source report_structure. But user is allowed to put to utilization of identical report for various dashboard_components over one dashboard. Various dashboard comp. are allowed for pictorialization over individual single dashboard page, making a dominant graphic display. Moreover, method for ingesting manifold graphic views which contains similar reference to any particular topic for e.g. marketing budgets or cluster of client data etc.

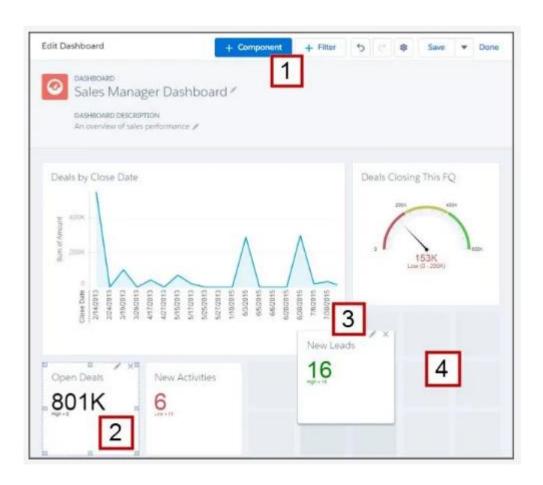


Fig 2.6: Salesforce Dashboard

Dashboard vessel container is also similar as that to any other type are salesforce_folders, that will have a regulator on person trying to view the contents of that dashboard. Condition, one person have the access rights for folder. He/She is allowed to see the contents of it. One must have the rights to view the folder, access it along with the rights to look into the report that is attached in the folder to view that specific section.

Every dashboard consists of currently processing user and on that usersecurity settings resolves the figures are displayed. Condition, present user is of explicit type. Altogether viewers will grasp the information according to that explicit personnel. Nevertheless, the setting of other access-user is set to for protection of info. Hence carefully chose the processing current userin order to not show or exposed confidential info. Instance, if data analyst is current user in respect toleader board for entire group. It permits his group as a whole accessfor seeing leader board and block the other group visibility.

Dashboards in whichcurrent user is permanentlypresent is called the Dynamic Dashboard. Every user can view the dashboard depending to his/her access level to the folder.

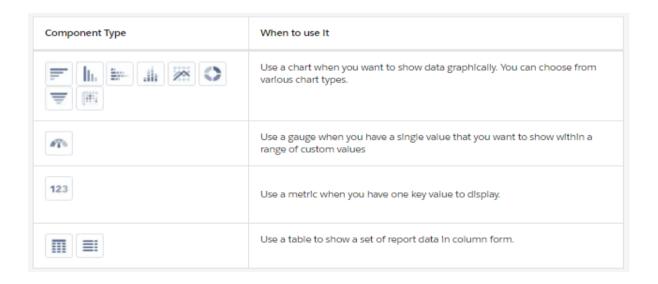


Fig 2.7: Dashboard Components

4.3 Create Charts

4.3.1Report Charts

Report charts are the right choice if you don't want to create a dashboard, but just want to add a chart to your report. They allow you to place a single chart right at the top of a report, so that when you open and view the report, you can see the chart and the report results in one view.

5 Data Security

Data security is nothing but preserving the confidential information of your firm and your clients safe and secured.

5.1 Data Entree

Administrator can governor which people have access to what type of information. Providing information.

Organization: -, Passwords and number of attempts login can be done by the salesforce admin for whole organisation.

Field Entree: - Admin has ability restrict entrance for definite fields, in-case people has object entree. For e.g., admin restrict net profit field from employees and only give access to higher management.

Object Entree: - Entree to objects information is simplest entity to governor. Changing permission for a particular obj will govern itsview/modify settings. Considering e.g.,admin can ensure that interns don't get to much access to firm's organisation. Hence can setup settings accordingly.

Record Entree: - Admin can prevent entrée to particular record so even after obj and field rights provided. For e.g., admin can make sure that a defence agency which is its client is not listed in the client name list except for higher management officials. Further is has four types:

• **Organization-wide defaults** specify automatic assigned lvl of entrée to every view details of other employee. This is used for highest lvl of security purpose. Further mentioned two types will provide access to specific people only after org wide default restriction.

- Role hierarchies give entrée to information owned by people below them
 in organization designation wise. Role are not hard and fast to be bound to
 company designations. In its place, a role is that represent entrée to
 information.
- **Sharing rules** Created by the admin, they provide default exemptions for accessing data neither owned or accessible generally. These are the only rule that instead of restricting entrée, provide entrée to people.
- **Manual sharing** created by record owners. These entrée is provided for just a temporary basis like if employee is sick and want his colleague to work on some of his info, he/she can assign it to him in order to get work done.

5.2 Control Access to the Organization

When you ensure that only employees who meet certain criteria can log in to Salesforce, you're protecting your data at the broadest level. You do this by managing authorized users, setting password policies, and limiting when and where users can log in.

5.2.1Manage Users

User are people who log-in to salesforce and perform business related tasks for their firm. They all have unique ID called used name for identification. Futher they are assigned roles and access lvl.

5.2.2Whitelist Trusted IP Ranges for the Org

The first instanceof logging-in, user IP automatically recovered in your browser. Later you log in altered IP address, you will be asked to verify your identity, typically by entering a "verification_code". You skip step for trusted IP ranges. For e.g., directly log-in from other office of the same firm.

5.2.3Restrict Login Access by Time

Providing a time bound for logging in for a particular set of users. For example, making data visible to customer support agents in office hours only. This prohibit them to access info after the office hours.

5.3 Entree to Objects

5.3.1 Manage Object Permissions

Admin has the rights to set-up permissions for sight an modification of information in particular object.

Profiles and permission sets assigned to employees play vital part in objauthorization.

- Profile is for entrée to object information.
- Permission sets is for supplementary permissions.

Leastauthorizationis approved via profile. For definite further access use permission sets.

5.3.2 Standard User Profiles

These profile have automatic permissions assigned like creating/deleting information on standard objetcs.

Some e.g. of the standard profiles are:

- Read Only
- Standard User.
- Marketing User
- Contract Manager
- System Administrator

The System Administrator profile is further sub divided in two categories.:

- View All Data: to get to see all information in the respective Firm but no changes can be made.
- Modify All Data: to be able to see as well as modify the any sort of data/information.

5.3.2 Permission Sets

Permission set is used for providing supplementary access to information to the employee by the admin. These sets are assigned temporarily and whenever required these can be withdrawn with immediate effect.

More than one permission set is also allowed to be assigned to a particular employee.

These further have two types which are:

• **Permission set for custom objects:** E.g. Intern within an organisation are provided with minimal access of data. So all can be grouped and assigned a permission set. If few of them are exceptional good and deployed on

project, then those intern need special access. To avoid creating different role and profile for these intern, we make specific set of permission and assign to intern in project.

• **Permission set for fields.:** Consider Aman senior team manager is on vacation. What is the same day client calls and asks for specific info restricted to manager's only we can grant the permission set to his team for that day, so who so ever is available can manage the client.

5.4 Control Access to Fields

Admin can also set-up restrictions to particular field and allow only higher ups to see the information. Moreover, the admin can also moderate who can only view the data by cannot perform any modifications.

5.5 Control Access to Records

5.4.1 Security of Records:

Hiding sensitive information is very important for a firm as it may cause it expensive and client loss if not cared. Salesforce admin can restrict users from view or accessing a particular record.

Regulated access to records in ascending order of access is given underneath:

- **Org-wide defaults** to give defaulting access to all employees.
- Role hierarchies to give access to data that person designated below him has/owns.
- **Sharing rules** to give access to a specific group which the group isn't having already.

• **Manual sharing** to give access to information to whom the owner of that specific data wants.

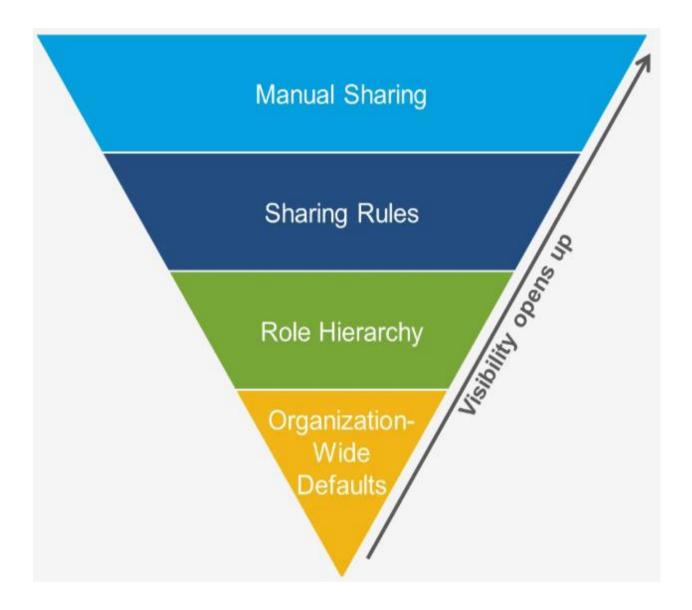


Fig 2.8: Record Access

5.5 Role Hierarchy

Role Hierarch is vary similar to the designation in an organisation but need not to be exactly same as that the designation of the employee is. Role Hierarchy present a tree like structure of the firm and lets you contact the with right person for the right job. As we go down the organisation tree, the level of information one can access decreases.

5.5.1Role Hierarchy

The most important person in the organisation is represented at the top of the tree as the root. He/she has access to all the data and information within the firm for running the firm smoothly. Below him are senior executives, directors, Vice President of respective departments going all the way down to system engineers and interns.

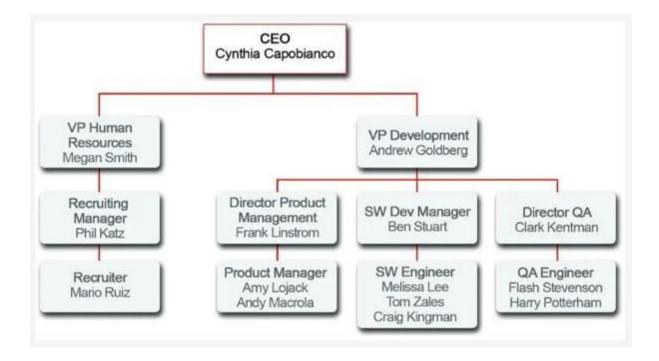


Fig 2.9: Role Hierarchy for Recruiting App

CHAPTER 3

SYSTEM DEVELOPMENT

3.1 Requirements for System

With Cloud Computing in use the major advantage is reducing the system requirement. For this application development or use you only require the following platforms:

- I. Windows 10 (64-bit)
- II. Web Browser
- III. 4GB RAM
- IV. Internet Connectivity

CHAPTER 4

PERFORMANCE ANALYSIS

While organising an event there are plenty of things needed to be considered and taken care of like the date and venue of the event. Below shown are the glimpse of the app made for Registering event to save time via the Salesforce platform.

Step 1: First we made a custom object "Event Registration" with data type as text.

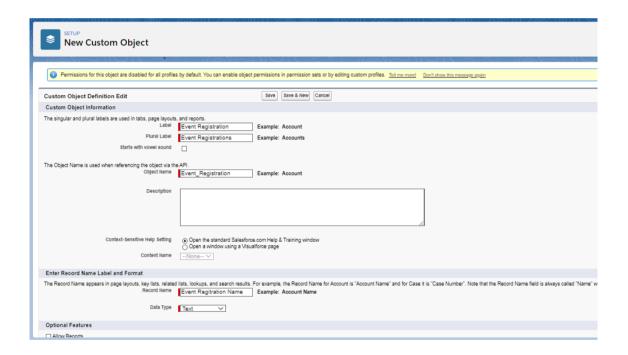


Fig 3.1: Custom Object Creation

Here is an over-view of the Event custom object

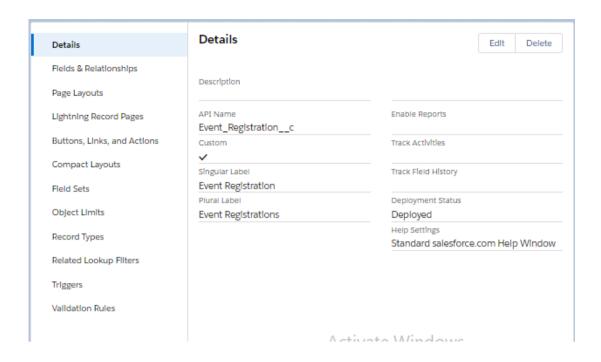


Fig 3.2: Overview of Event Object

Step 2: Creating the following lists of fields and relationship on the Event Registration Object:

- 1. Registration ID: A text field to give unique ID for each person attending the event.
- 2. Attendee: A custom field track the persons of event having a master detail relationship with the Contact Object.
- 3. Event Name: To keep trail of all the events happening and having a master detail relationship with Public Events having child relationship as Event Registrations.
- 4. Dietary Needs: Picklist field to keep trail of diet needs of attendant.
- 5. Registration Fee: Currency field to showcase the fees for registration.
- 6. Type: To determine whether participant is employee, customer or partner.

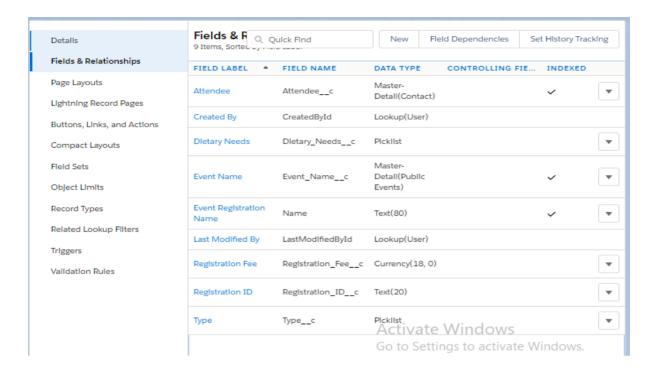


Fig 3.3: Custom fields on Event Registration objects reflected by "__c"

Step 3: Creating a Custom Tab for the User Interface of Event Registration
Step 4: Creating following custom fields on the Public Event Object.

- 1. Registration Revenue: Roll-up summary fields which calculates the sum of total revenue by adding the amounts in the "Registration Fee" Column.
- 2. Number of Registrations: Roll-up summary field to know the total no of participants of a particular event using COUNT functionality.

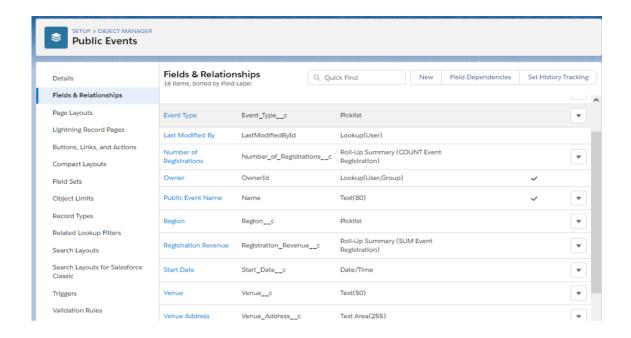


Fig 3.4: Custom fields on Public Event object for participant and revenue count.

Step 5: Creating a Public Event "Dreamforce 2019" by navigating to Events App and clicking new on Public Events. Making a session "Dreamfest2019" with the help of sessions tab.

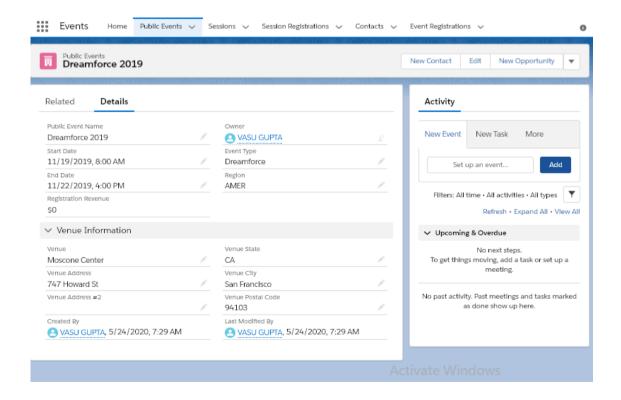


Fig3.5: Dreamforce 2019 Public Event

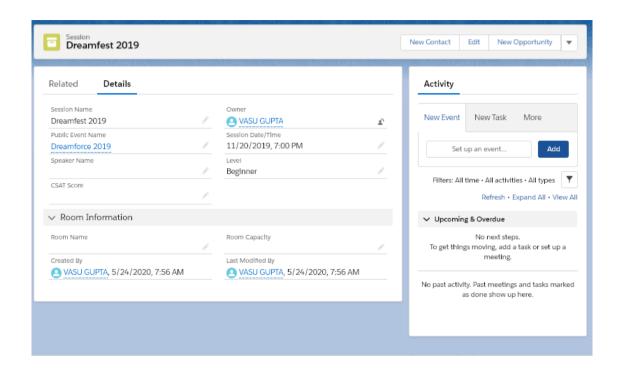


Fig 3.6: Session "Dreamfest 2019"

Step 6: Importing the below shown csv file to the salesforce platform and mapping the columns to fields on the basis of names.

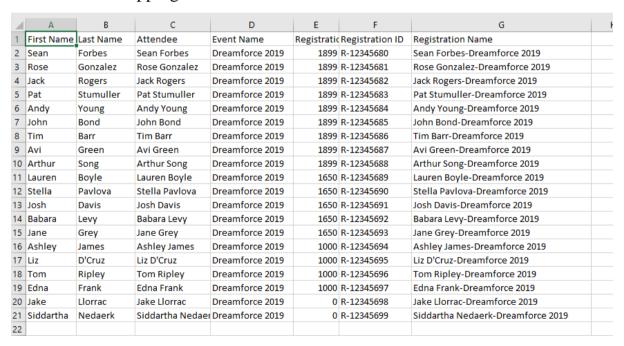


Fig 3.7: Participants lists for the Public Event

Step 7: Building a Process to automate the process that automatically adds Dreamfest session for each of the participants for the public event Dreamforce.

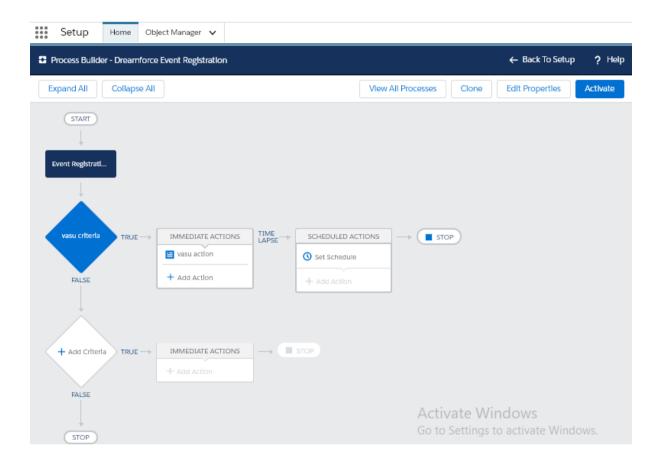


Fig 3.8: Process Builder for automatically registering participants

Step 8: Checking the Automated Process by registering a participant for the Dreamforce 2019 Event and verifying that the result is automatically added to the Session Registrations tab.

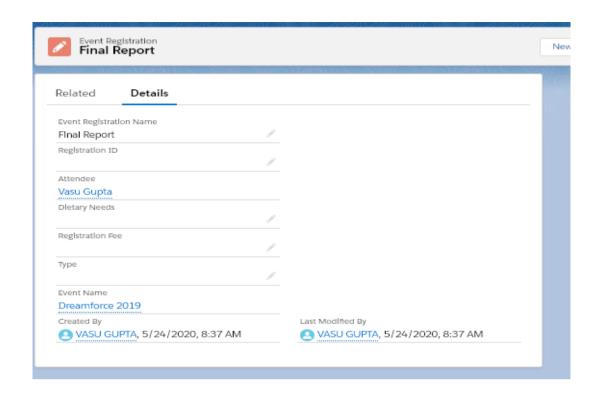


Fig 3.9: Sample Record for DreamforceEvent

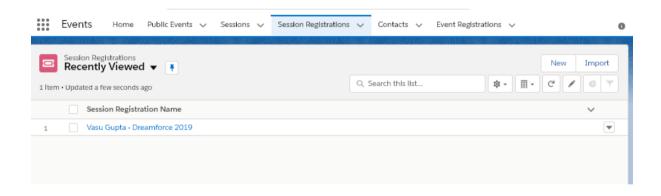


Fig 3.10: Participant automatically registered for the Session by Process "Dreamforce Registration"

CHAPTER 5

CONCLUSIONS

The App to made with the help of Customer Relationship Management technology applied by Salesforce Platform. The app is built to automate and manage the registration of events and the participants attending the event at a single place. Moreover, the app is compatible with importing data about participants and events from the excel or csv files and automatically creates mapping of columns to corresponding fields in the object so as to avoid manual data entry and save human effort.

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