SALESFORCE CRM

A Project Report Submitted

In Partial Fulfillment of the Requirements

For the Degree of

MASTER OF COMPUTER APPLICATIONS

By

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Under the Supervision of

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Submitted to

DEPARTMENT OF COMPUTER APPLICATIONS

Affiliated to

DR. A. P. J ABDUL KALAM TECHNICAL UNIVERSITY

LUCKNOW

JUNE 2021

DECLARATION

I hereby declare that the work presented in this report entitled **"SALESFORCE CRM"**, was carried out by US. We have not submitted the matter embodied in this report for the award of any other degree or diploma of any other University or Institute.

We have given due credit to the original authors/sources for all the words, ideas, diagrams, graphics, computer programs, experiments, results, that are not my original contribution. We have used quotation marks to identify verbatim sentences and given credit to the original authors/sources.

We affirm that no portion of my work is plagiarized, and the experiments and results reported in the report are not manipulated. In the event of a complaint of plagiarism and the manipulation of the experiments and results, We shall be fully responsible and answerable.

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Field: Computer Applications

CERTIFICATE

Certified that **Nainsi Verma (Univ. roll-1900290149065)**have carried out the project work having **"SALESFORCE CRM"** for Master of Computer Applications from Dr.A.P.J. Abdul Kalam Technical University (AKTU), Lucknow under my supervision. The project report embodies original work, and studies are carried out by the student himself/herself and the contents of the project report do not form the basis for the award of any other degree to the candidate or to anybody else from this or any other University/Institution.

Date: **Nainsi Verma**

Univ. roll-1900290149065

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

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ABSTRACT

Salesforce is very hot cloud computing technology in IT industry ,which is available on cloud ,no need install any software as well as no hardware required. Salesforce.com(SFDC) is a number one on demand CRM, which runs on force.com platform , as well as CRM is a model used to manage organization inter actions like phone calls, Emails, Meetings and Social media with customers and also prospects penetrating to Sales, Marketing and Support .
.

In Detail Sales force com has contributed in bringing about a social revolution to the Internet era . Salesforce com provides you with the power of cloud computing, enabling you to quickly build enterprise apps in a cloud .This is a step - by - step guide to automating your business requirements or streamlining your sales process using Sales force CRM Sales force is a customer relationship management tool (CRM) , which means it is used to keep track of and strengthen a company's relation ship with its existing and potential clients .Sales force provide CRM solution on cloud

ACKNOWLEDGEMENTS

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Finally, my sincere thanks go to my family members and all those who have directly and indirectly provided me moral support and other kind of help. Without their support, completion of this work would not have been possible in time. They keep my life filled with enjoyment and happiness.

Nainsi Verma

Roll No. 1900290149065

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IDE	Integrated Development Environment	2
TC	Test Case	2

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CHAPTER 1

INTRODUCTION

1.1 OVERVIEW

Salesforce is an on-demand customer relationship management (CRM) suite offering applications for small, midsize and enterprise organizations, with a focus on sales and support.
Salesforce started as a cloud based solution for CRM. CRM stands for Customer Relationship Management. It involves managing all aspects of relationship between an organization and its customers. For example, the contact details of the customer, the deals that are in progress or already completed, the support requests from a customer or a new lead from a new customer. Beyond the customer related information, it also involves storing and managing the details of the people and the concerned department from the seller organization that is managing the customer's account and needs. This makes it easy to manage and enhance the relationship with the customer and hence better growth for the organization.

Following are the different features of the Salesforce platform:

Contact Management

To view customer contact details, activity history, customer communications, and internal account discussions, etc. In short, it manages all the data pertaining to the contact with a customer.

Opportunity Management

It provides the details of the stage a deal is in, the products involved in the deal, the quotation for the deal etc. In short it manages all the data that helps in identifying, progressing and closing a deal.

Salesforce Engage

This feature is focused on making personalized contact with a customer for various campaigns designed by the marketing team. It also provides real-time sales alerts based on the level of engagement with a customer.

Sales Collaboration

This feature helps in quickly finding experts who can help in closing a deal based on customer queries and feedback. In short, it helps in bringing in a collaborative effort to engage an entire team in the deal and make the deal happen.

Sales Performance Management

It provides a metric-based goal setting, and also continuous feedback and rewards and recognition for the sales team. This helps in enhancing the performance of the sales team.

Lead Management

This feature initiates and tracks the leads that are in progress. It also helps in continually optimizing campaigns across every channel.

Partner Management

This feature helps in building a community with partners. It also helps in connecting directly with channel partners to share goals, objectives, and activities.

Salesforce Mobile App

This is the mobile platform to carry out all the above activities on a mobile platform.

Workflow and Approvals

It is a visual design to automate the business processes. The interface provides simple drag and drop options to make this design. It helps in creating a flexible approval process with deal discounts and expense management etc.

Email Integration

Salesforce can integrate to an existing email platform. This helps in providing flexibility to the existing team with no additional learning curve.

Files Sync and Share

This feature provides the sales team the power to easily share various files, discuss them and update them as needed. Also receive alerts when something in the file changes.

Reports and Dashboards

Dashboards offer a real-time picture of the business at a glance. With this, anyone can create detailed reports which can be accessed from anywhere.

Sales Forecasting

This feature helps in getting a real time view of the forecast of a sales team. It provides multi-currency support and an in-line editing mode to manage the sales forecast well.

Territory Management

This feature is used to create multiple territory models, preview them before rollout, and continually optimize and balance territories throughout the year.

1 . 2 PROJECT DESCR IP TION

CRM customization designates a process of adding new or altering existing CRM features in order to make it a better fit for the needs of each particular business. Generally speaking, CRM customization usually falls into three broad categories.

First, custom fields are added to CRM entities, like leads, contacts or opportunities in order to collect additional information that default forms don't allow. The second type of customization involves using existing sales and marketing automation tools in order to create specific scenarios that are relevant to the client's business. The third type of customization involves creating custom integration with non-CRM tools and service.

1 . 3 TECHNOLO GIES TO BE USE D

This project will be a CRM customization to be developed using following:

- Salesforce
- Apex Language

1. 4 PURPOSE

Customized CRM solution you get to tie up all the loose ends – everything fits neatly and comfortably together, with every unnecessary step eradicated. There's also no need for multiple systems that don't connect together, or which you have to keep switching between, or which don't do *quite* what you want them to.

Earning profit is the principal and final goal of any organization, even if your business is not big yet. Being a catalyst for interplay with clients, CRM aids the earning power enhancement.Hence,an entrepreneurship will be more successful if the mentioned technology is stream lined. In that case, it is often referred to as a software to old designed to cope with versatile tasks like managing contact/sales, business transactions etc. But it fits notonly sales. Technical features of most CRM solutions allow it simple mutation In different area so work flow including clientservices, laborer sources department, supply-chain operation and soon.

Companiesneglectingtoactualizethepurposeofcustomerrelationshipmanagementsystemarelikelyfailingtoexploittheirpotentialatfullbreath.Insimplewords,theycouldhave**savedmoremoney,increasedclientbase,streamlinednewfocusareas**,etc

Yourfuturesuccessdependsonproperanalysisofversatilemetrics.CRMsystemsholddatainoneplacetomakeitaccessibletoyouatanytimefromanyplaceanddevice.Assoonasyouaccomplishedarequiredanalysis,youobtainthecapabilitytomakeanautomaticreportforoptimizingyourtime.Youshouldnotbeafraidoflosingthenecessaryreportsinceyoucanprioritizeitforthefutureutilization.Perhaps,inthatcase,thepurposeofCRMistolaythefoundationforyourfuturesuccess.

1. Guiding any kind of interplay and/or cooperation with client.
2. Acquiring new clients.
3. Servicing current client base.
4. Keeping clients.
5. Identification of high-rated clients against the low-rate done
6. Information update along with technical assistance on web resources 24/7.
7. Following an individual approach to each client.
8. Providing an effective mechanism to guide and schedule follow-up sales.
9. Tracking all contact points between a company and a client.
10. Identifying possible problem sat early stages.
11. Providing an effective mechanism to deal with client complaints.
12. Tracking individual preferences through Internet activity.
13. Personalizing product offerings to each client.

1.5 SCOPE

CRM gives marketing managers a unique database, enabling them to propose marketing operations to help win new customers and develop customer loyalty.

As a business, you are done with the research and finally decided that Salesforce suits your business requirements completely. You have increased traffic on your website, collected plenty of business cards, networked like crazy, and improved your presence on social media platforms.

You have gathered data from visitors and converted them into buyers. But your customers are moving away after a few weeks. We need expert strategies for retaining customers.
Mostly, Salesforce is considered suitable for customer acquisition,but it is five to twenty-five times more expensive than retaining the existing ones . The best idea Is to hang on with potential customers and plan more attractive offers for them.According to marketing professionals, an approximate 5 percent hike in customer retention will give a 25percent hike in profit.

1.6 HARDWAREREQUIREMENT

Hardware	Configuration
Processor	Intel(R)core(TM)i5-7200UCPU @2.50GHz
Ram	8GB
Monitor	Lenovoideapad320

1.7 SOFTWARER EQUIREMENT

Software	Configuration
OperatingSystem	Windows10
Language	Apex
IDE	Cloud9

1.8 PROJECT SCHEDULE

DEVELOPMENT	**DATE**
CreateHomepage	28/02/2020
AddLeadsPage	05/03/2020
AddAccountspage	08/03/2020
AddContactspage	12/03/2020
Addopportunitypage	16/03/2020
Addreportspage	20/03/2020
AddCampaignspage	25/03/2020

CHAPTER2

FEASIBILITY STUDY

2.1 I NTRODUCTION

The purpose of this thesis is feasibility study of Customer Relationship Management. With increased globalization, competition, higher customer turnover, growing customer acquisition cost and rising customer expectations into day competitive world.

CRM is very important for several companies and received a increasing amount of interest among scholars and practitioner especially in recent years. While some companies have received immense benefits from their investments.

The researchers find that is CRM is the form of giving special services with the help of IT, one to one marketing, effective relationship and knowing customers needs and meet this needs via giving more and more special services.

The goals of feasibility studies areas follows:

1. To understand thoroughly all aspect so far project, concept, or plan

2. To become aware of any potential problems that could occur while implementing the project

3. To determine if, after considering all significant factors, the project is viable that is, worth undertaking

Feasibility studies are important to business development. They can allow a business to address where and how it will operate. They canal so identify potential obstacles that may impede its operations and recognize the amount of funding it will need to get the business up and running. Feasibility studies aim for marketing strategies that could help convince investors or banks that investing in a particular project or business is a wise choice.

Feasibility of the system in an important aspect, which is to be considered. The system needs to satisfy the law of economic, which states that the maximum output should be yielded in minimum available resources.

A feasibility analysis evaluates the project's potential for success; therefore, perceived objectivity is an essential factor in the credibility of the study for potential investors and lending institutions.

There are five types of feasibility study—separate areas that a feasibility study examines, described below.

1. Technical Feasibility

This assessment focuses on the technical resources available to the organization. It helps organizations determine whether the technical resources meet capacity and whether the technical team is capable of converting the ideas into working systems. Technical feasibility also involves the evaluation of the hardware, software, and other technical requirements of the proposed system.

2. Economic Feasibility

This assessment typically involves a cost/ benefits analysis of the project, helping organizations determine the viability, cost, and benefits associated with a project before financial resources are allocated. It also serves as an independent project assessment and enhances project credibility—helping decision-makers determine the positive economic benefits to the organization that the proposed project will provide.

3. Legal Feasibility

This assessment investigates whether any aspect of the proposed project conflicts with legal requirements like zoning laws, data protection acts or social media laws. Let's say an organization wants to construct a new office building in a specific location. A feasibility study might reveal the organization's ideal location isn't zoned for that type of business. That organization has just saved considerable time and effort by learning that their project was not feasible right from the beginning.

4. Operational Feasibility

This assessment involves undertaking a study to analyze and determine whether—and how well—the organization's needs can be met by completing the project. Operational feasibility studies also examine how a project plan satisfies the requirements identified in the requirements analysis phase of system development.

5. Scheduling Feasibility

This assessment is the most important for project success; after all, a project will fail if not completed on time. In scheduling feasibility, an organization estimates how much time the project will take to complete.

When these areas have all been examined, the feasibility analysis helps identify any constraints the proposed project may face, including:

- Internal Project Constraints: Technical, Technology, Budget, Resource, etc.
- Internal Corporate Constraints: Financial, Marketing, Export, etc.
- External Constraints: Logistics, Environment, Laws, and Regulations, et

2.2 MAIN ASPECTS

There are three aspects of feasibility to be considered namely.

1. Technical
2. Operational
3. Economical

TECHNICAL:

In the technical aspects one may consider the hardware equipment for the installation of the software. The system being centralized will required very little hardware appliances. Hence this helps the system to work smoothly with limited amount of working capitals.

OPERATIONAL:

In the operational aspects may think of the benefits of the workload that many a personal may have to share. This is eased out and the required output may be retrieved in a very short time. Thus there is accuracy in the work on time is also saved there will be very little work that needs to be performed.

ECONOMICAL:

Economical system is definitely feasible because the hardware requirement is less and the operational working for the system requires less number of recruits. This help introduction over-staffing and wastage funds.

We studied on the position to evaluate solution. Most important factors in this study were tending to overlook the confusion inherent in system Development the constraints and the assumed studies. It can be started that it the feasibility study is to serve as a decision document it must answer three key questions.

1. Is there a new and better way to do the job that will benefit the user?
2. What are the costs and savings of the alternatives?
3. What is recommended?

On these questions it can be explained that feasibility study of the system includes following different angles.

2.2.1 Technical feasibility:

This centers on the existing computer system (hardware, software etc.) and to what extent it can support the proposed additional equipment .in this stage of
study, we have collected information about technical tools available by which I could decide my system design as the technical requirements.

2.2.2 Operational Feasibility:

In this stage of study we have checked the staff availability. I concentrate on knowledge of end users that are going to use the system. This is also called as behavioral feasibility in which I have studied on following aspects; people are inherently resistant to change, and computers have been known to facilitate change .An estimate has been made to how strong a reaction the user staff is having toward the development of a computerized system. It is common knowledge that computer installations have something to do with turnover. I had explained that there is need to educate and train the staff on new ways of conducting business.

2.2.3Economical feasibility:

Economical analysis is the most frequently used method for evaluating the effectiveness of candidate system. More commonly known as cost\benefit analysis, the procedure is to determine the benefits and savings that benefits outweigh costs. The decision was to design and implement system because it is for having chanced to be approved. This is an on going effort that improves the accuracy at each phase of the system life cycle.
In developing cost estimates for a system I need to consider several cost elements. Among these is hardware personal facility. Operating and supply costs.

CHAPTER3

SCREENSHOTS

3.1HOME PAGE

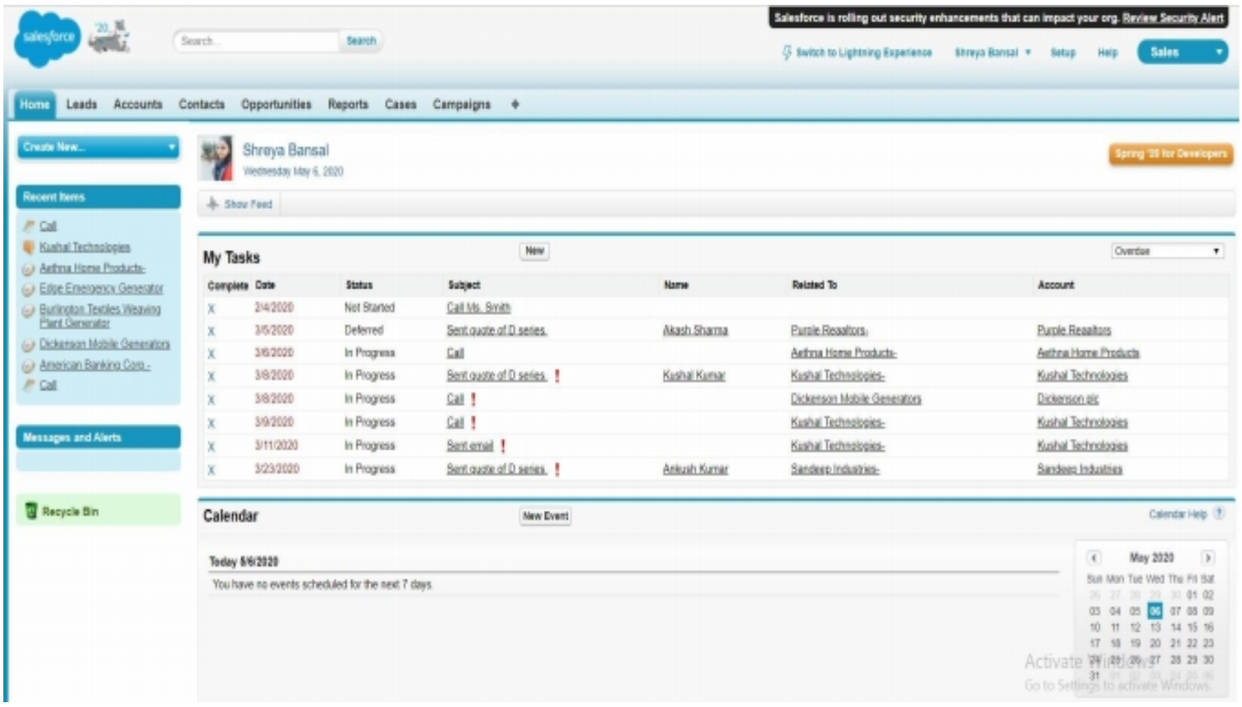

Figure 3.1 HOME PAGE

3.2LEADS SCREEN

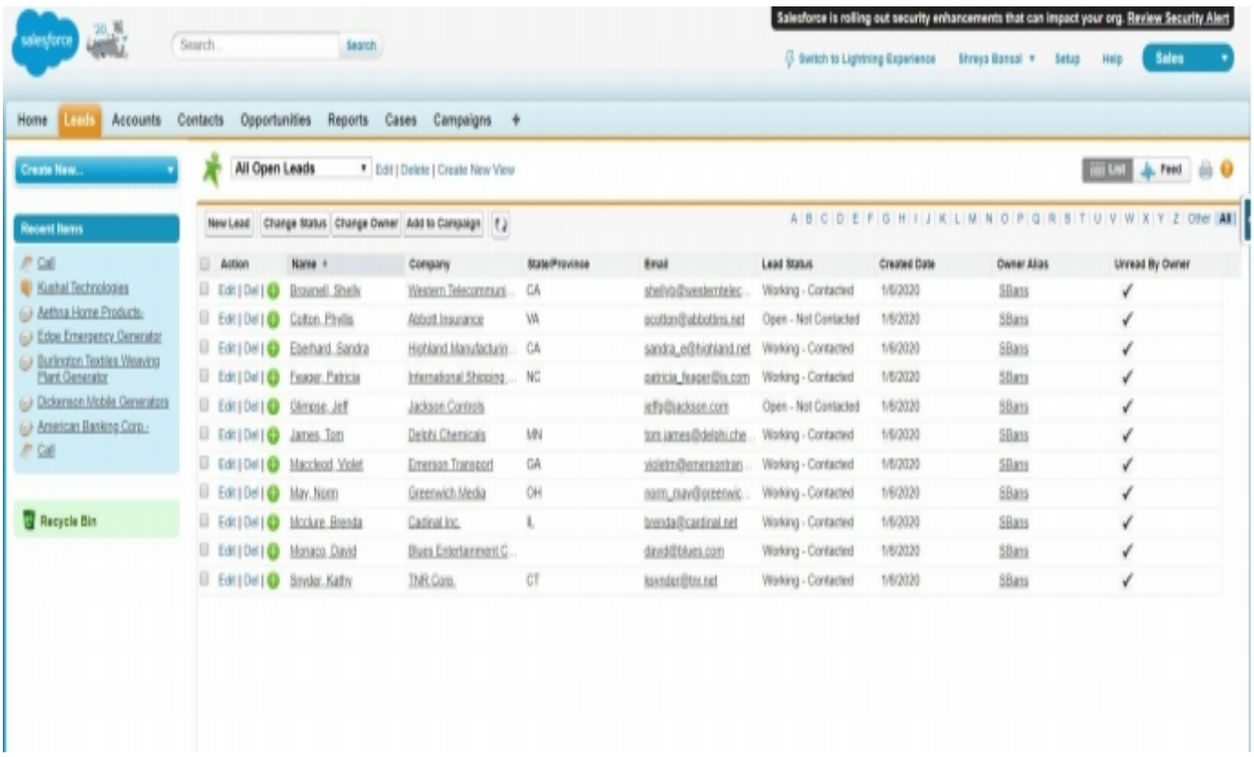

Figure 3.2 LEAD SCREEN

3.3 ACCOUNTS SCREEN

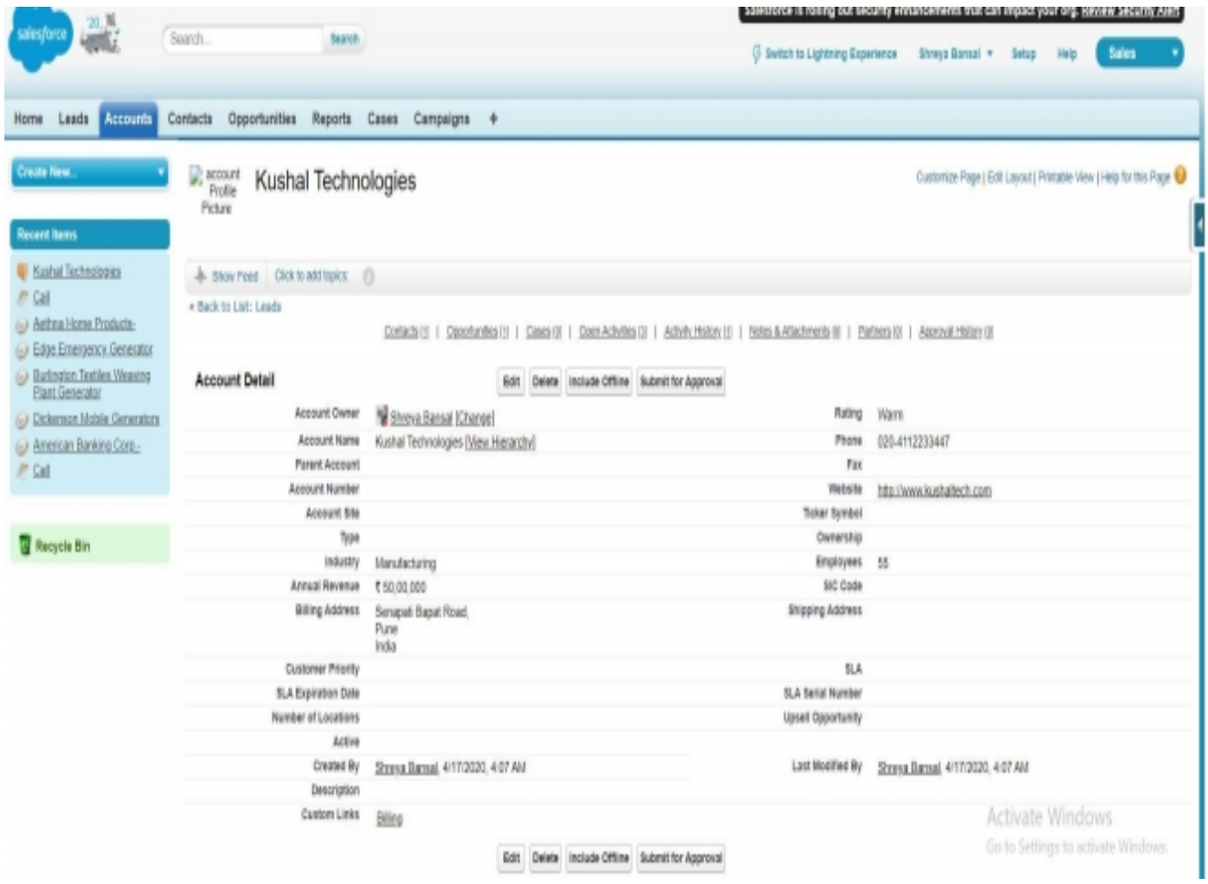

Figure 3.3 ACCOUNTS SCREEN

3.4 CONTACTS SCREEN

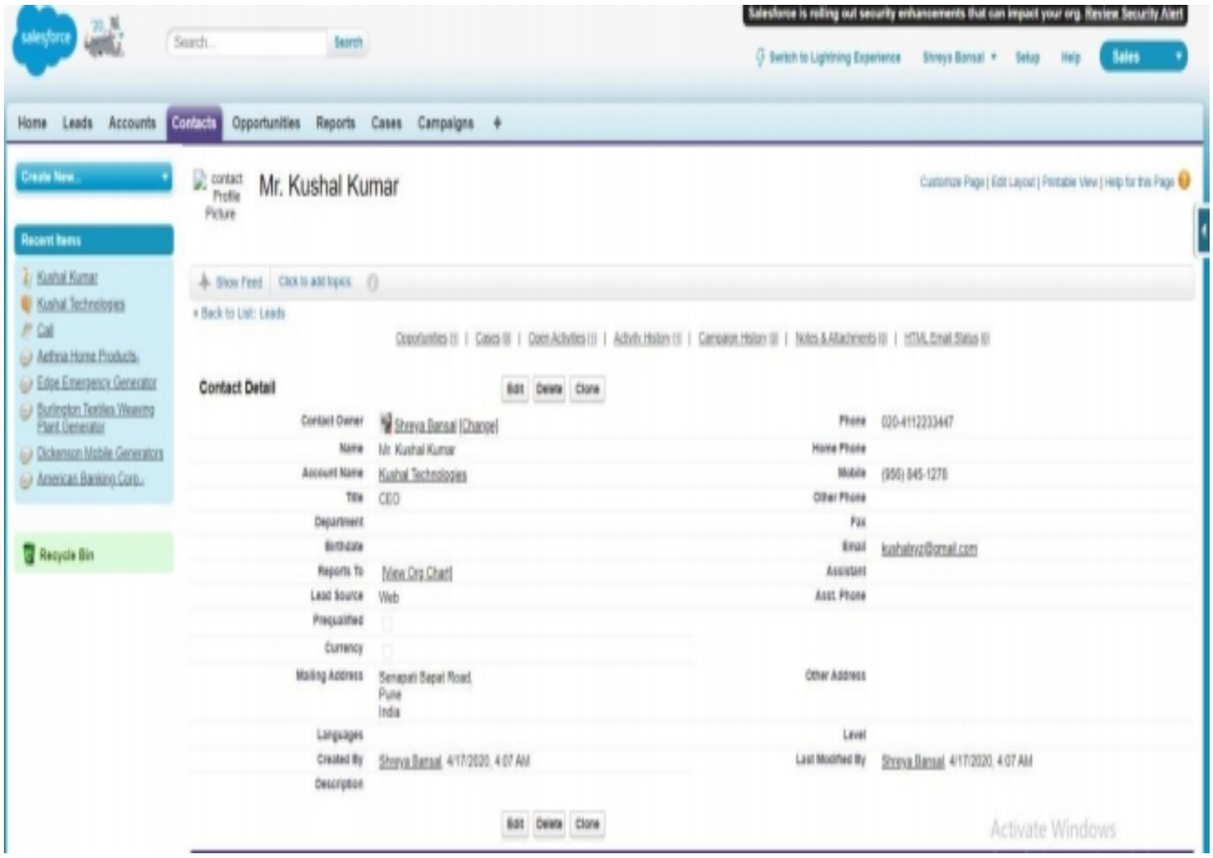

Figure 3.4 CONTACT SCREEN

3.5 OPPORTUNITIES

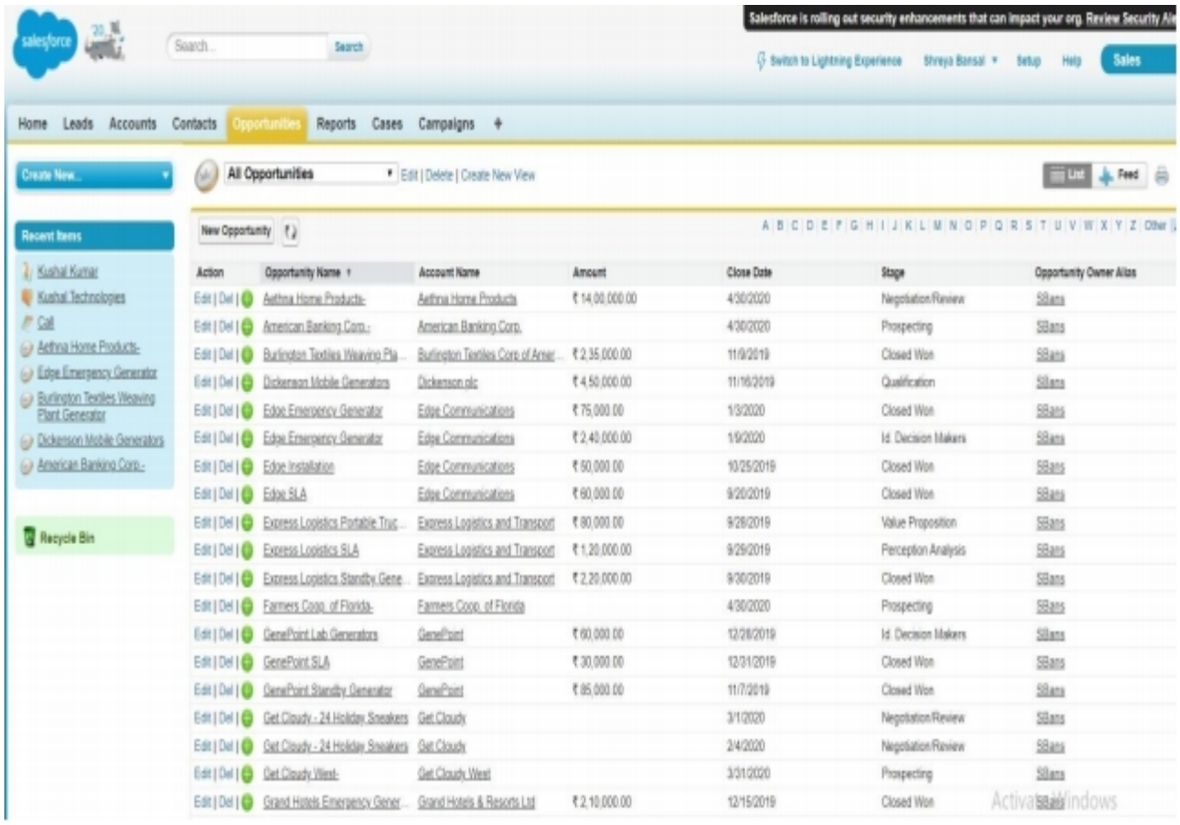

Figure 3.5 OPPORTUNTES

3.6 REPORTS SCREEN

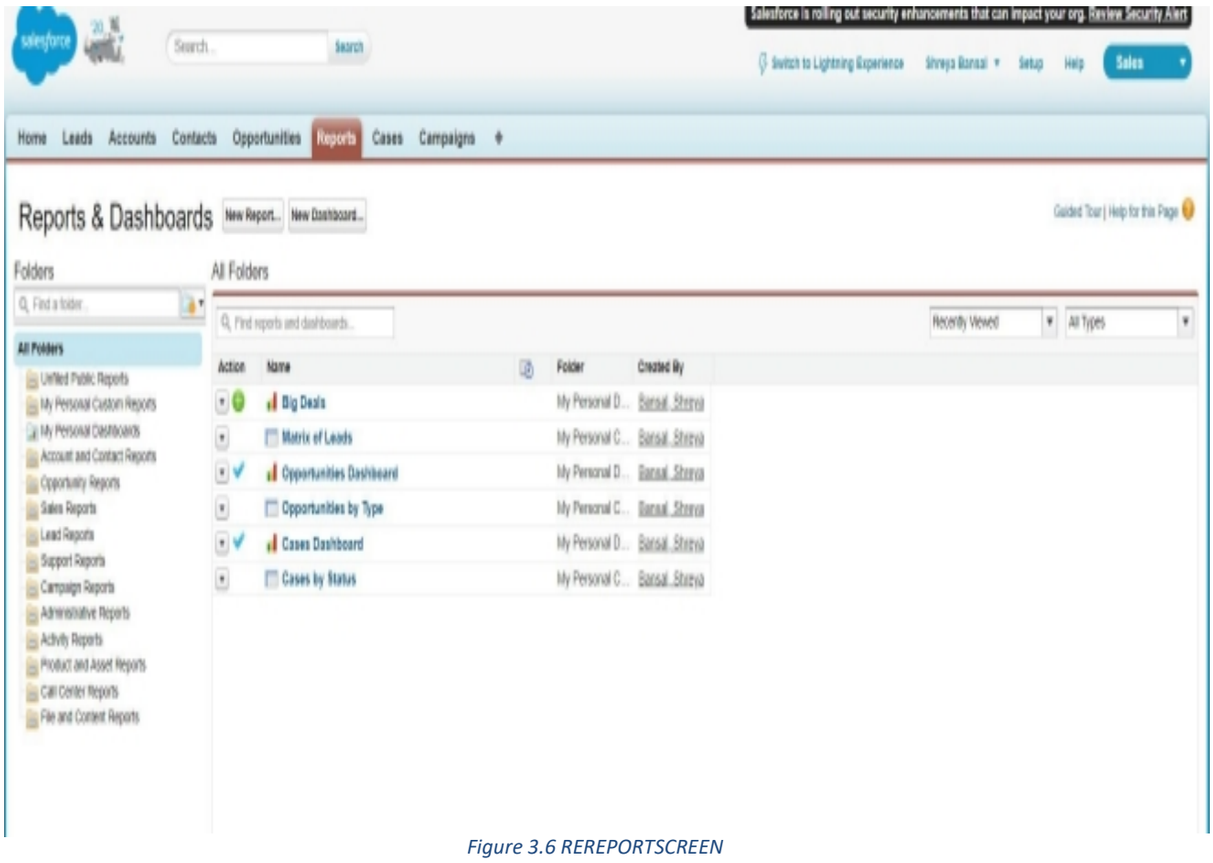

Figure 3.6 REREPORTSCREEN

3.7 CAMPAIGNS SCREEN

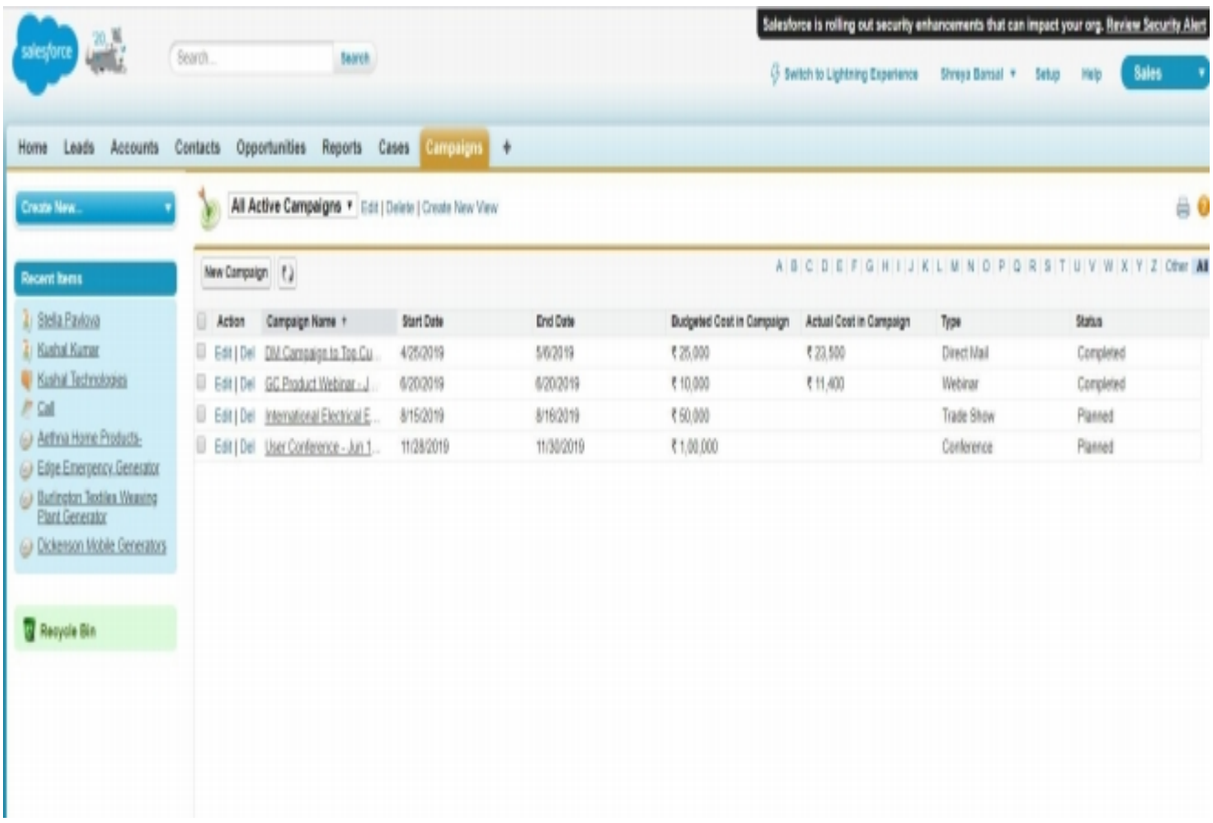

Figure 3.7 CAMPAGN SCREEN

CHAPTER4

DEVELOPMENT

Coding

4.1 Contacts Today Controller:

```
Public class Contacts Today Controller{
@AuraEnabled
Public static List<Contact>getContacts ForToday(){
List<Task>my_tasks=[SELECTId,Subject,WhoIdFROMTaskWHEREOwnerId=
:UserInfo.getUserId()ANDIsClosed=falseANDWhoId!=null];
List<Event>my_events=[SELECTId,Subject,WhoIdFROM
EventWHEREOwnerId=
:UserInfo.getUserId()ANDStartDateTime>=:Date.today()ANDWhoId!=null];
List<Case>my_cases=[SELECTID,ContactId,Status,SubjectFROM
CaseWHERE
OwnerId=:UserInfo.getUserId()ANDIsClosed=falseANDContactId!=null];
Set<Id>contactIds=newSet<Id>();
for(Tasktsk:my_tasks){
contactIds.add(tsk.WhoId);
}
for(Eventevt:my_events){
contactIds.add(evt.WhoId);
}
for(Casecse:my_cases){
contactIds.add(cse.ContactId);
}
```

```
List<Contact>contacts=[SELECTId,Name,Phone,DescriptionFROM
ContactWHERE
IdIN:contactIds];
for(Contactc:contacts){
c.Description='';
for(Tasktsk:my_tasks){
if(tsk.WhoId==c.Id){
c.Description+='BecauseofTask"'+tsk.Subject+'"\n';
}
}
for(Eventevt:my_events){
if(evt.WhoId==c.Id){
c.Description+='BecauseofEvent"'+evt.Subject+'"\n';
}
}
for(Casecse:my_cases){
if(cse.ContactId==c.Id){
c.Description+='BecauseofCase"'+cse.Subject+'"\n';
}
}
}
returncontacts;
}
}
```

4.2 Contacts Today Controller Test:

```
@IsTest
Public class Contacts Today ControllerTest{
@IsTest
Public static void testGetContacts ForToday(){
Accountacct=newAccount(
Name='TestAccount'
);
insertacct;
Contactc=newContact(
AccountId=acct.Id,
FirstName='Test',
LastName='Contact'
);
insertc;
Tasktsk=newTask(
Subject='TestTask',
WhoId=c.Id,
Status='NotStarted'
);
inserttsk;
Eventevt=newEvent(
Subject='TestEvent',
WhoId=c.Id,


StartDateTime=Date.today().addDays(5),
```

```
EndDateTime=Date.today().addDays(6)
);
insertevt;

Casecse=newCase(
Subject='TestCase',
ContactId=c.Id
);
insertcse;
List<Contact>contacts=ContactsTodayController.getContactsForToday();
System.assertEquals(1,contacts.size());

System.assert(contacts[0].Description.containsIgnoreCase(tsk.Subject));System.assert(con
tacts[0].Description.containsIgnoreCase(evt.Subject));
System.assert(contacts[0].Description.containsIgnoreCase(cse.Subject));
}
@IsTest
publicstaticvoidtestGetNoContactsForToday(){
Accountacct=newAccount(
Name='TestAccount'
);
insertacct;
Contactc=newContact(
AccountId=acct.Id,
FirstName='Test',
LastName='Contact'
```

```
);
insertc;
Tasktsk=newTask(
Subject='TestTask',
WhoId=c.Id,
Status='Completed'



);
inserttsk;
Eventevt=newEvent(
Subject='TestEvent',
WhoId=c.Id,
StartDateTime=Date.today().addDays(-6),
EndDateTime=Date.today().addDays(-5)
);
insertevt;
Casecse=newCase(
Subject='TestCase',
ContactId=c.Id,
Status='Closed'
);
insertcse;
List<Contact>contacts=ContactsTodayController.getContactsForToday();System.asse
rtEquals(0,contacts.size());
}
}
```

4.3 Opportunity Alert Controller:

```
Public class Opportunity Alert Controller{
@AuraEnabled
Publicstatic
List<Opportunity>
getOpportunities(DecimaldaysSinceLastModified,String
oppStage,BooleanhasOpen){
DateTimelastModifiedDateFilter=
DateTime.now().addDays((Integer)daysSinceLastModified*-1);
List<Opportunity>opportunities=[
SELECTId,Name,StageName,LastModifiedDate,CloseDate
FROMOpportunity
WHEREStageName=:oppStageANDLastModifiedDate<=:lastModifiedDateFilter
];
Map<Id,Opportunity>oppMap=newMap<Id,Opportunity>(opportunities);if(hasOpen==tru
e){
List<Task>tasks=[SELECTID,WhatIdFROM
TASKWHEREIsClosed=falseAND
WhatIdIN:oppMap.keySet()];
List<Opportunity>opps_with_tasks=newList<Opportunity>();
for(Taskta:tasks){
if(oppMap.containsKey(ta.WhatId)){
opps_with_tasks.add(oppMap.get(ta.WhatId));
}
}
opportunities=opps_with_tasks;
}
```

```
}
}
```

4.4 Opportunity Alert Controller Test:

```
@IsTest
publicclassOpportunityAlertControllerTest{
@IsTest
publicstaticvoidtestGetOpptyWithoutOpenTasks(){
Opportunityoppty=newOpportunity(
Name='TestOppty',
CloseDate=Date.today(),
StageName='Prospecting'
);
insertoppty;
Tasktsk=newTask(
Subject='TestTask',
WhatId=oppty.Id,
Status='Completed'
);
inserttsk;
List<Opportunity>opps;
opps=OpportunityAlertController.getOpportunities(0,'Prospecting',false);
System.assertEquals(1,opps.size());
opps=OpportunityAlertController.getOpportunities(0,'Prospecting',true);
System.assertEquals(0,opps.size());
}
```

```
@IsTest



publicstaticvoidtestGetOpptyWithOpenTasks(){
Opportunityoppty=newOpportunity(

Name='TestOppty',

CloseDate=Date.today(),

StageName='Prospecting'

);

insertoppty;

Tasktsk=newTask(

Subject='TestTask',

WhatId=oppty.Id,

Status='NotStarted'

);

inserttsk;

List<Opportunity>opps;

opps=OpportunityAlertController.getOpportunities(0,'Prospecting',false);

System.assertEquals(1,opps.size());

opps=OpportunityAlertController.getOpportunities(0,'Prospecting',true);

System.assertEquals(1,opps.size());

}
```

CHAPTER 5

TESTING

INTRODUCTION TO SYSTEM TESTING:

Software Testing is a critical element of software quality assurance and represents the ultimate review of specification, design and code generation. The increasing visibility of software as a system element and the attendant “costs” associated with a software failure are motivating forces for well planned, thorough testing.

Testing Objectives:

The following are the testing objectives:

-Testing is a process of executing a program with the intent of finding an error.

-A good test case is one that has a high probability of finding an as-yet-undiscovered error

-A successful test is one that uncovers an as yet undiscovered error.

Testing Principles

The basic principles that guide software testing are as follows:

-All tests should be traceable to customer requirements.

-Tests should be planned long before testing begins.

-The parate principle applies to software testing.

5.1 UNIT TESTING

Unit testing focuses verification effort on the smallest unit of software design, the module. The important control parts are tested to uncover with in the boundary of the module. The module interface is tested to ensure that the information properly flows into and out of the program unit and boundary conditions are tested to ensure that the modules operate properly at boundaries established to limit or restrict processing. Test date is provided through testing screens.

• In unit testing we check whether a particular module is implementing its specification.

• Unit testingchecks whether coding is correct

Unit Testing-Advantages:

1. Reduces Defects in the newly developed features or reduces bugs when changing the existing functionality.

2. Reduces Cost of Testing as defects are captured in very early phase.

3.Improves design and allows better refactoring of code.

4.Unit Tests, when integrated with build gives the quality of the build as well.

Unit Testing Life cycle:

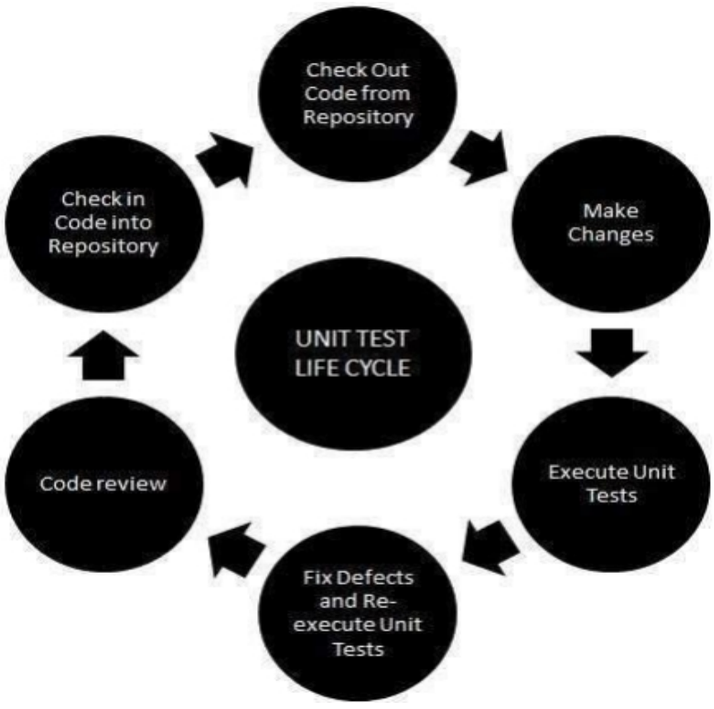

Figure 5.1 ***Unit Testing Life cycle:***

INTEGRATION TESTING

Integrating testing is a systematic technique for constructing Program structure while conducting tests to uncover error associates with interfacing .The objective is to take unit modules and built a program structure that has been directed by design.

• The modules that may work properly and independently may not work when they are integrated.

• Integration Testing will test whether the modules work well together.

• This will check whether the design is correct.

Integration can be done in 4 different ways:

- Top Down
- Bottom Up
- Sandwich
- Big Bang

Top Down Integration

In Top Down Integration, top level modules are developed and tested first, for testing this module we may require a dummy bottom level module – *stub.*

Bottom Up Integration

In Bottom Up Integration, bottom level modules are developed and tested first, for testing this module we may require a dummy top level module – *Driver.*

Sandwich Integration

Sandwich Integration combine both the previous techniques.
Instead of completely going for top down or bottom up, a layer is identified in between.
Above this layer we go for top down and below this layer bottom up
Big Bang Integration
• The Big Bang Integration integrates the entire unit tested module together at a go.

5.2 SYSTEM TESTING

. System testing is the process of testing the completed software as a part of the environment it was created for. It is done to ensure that all the requirements specified by the customer are met. System testing involves functional testing and performance testing.

System Testing will contain the following testing :

- Functional Testing.
- Performance Testing.

• Function Testing will test the implementation of the business needs.

• Performance Testing will test the non-functional requirements of the system like the speed, load etc.

WHITEBOX TESTING

white-box testing involves the understanding and usage of internal attributes and structure of the software by the testers to assess the functionality of the software

White Box Testing Techniques:

1 . Statement Coverage-This technique is aimed at exercise in gall programming statements with minimal tests

2 . Branch Coverage-This technique is running a series of tests to ensure that all branches are tested at least once.

3 . PathCoverage-This technique corresponds to testing all possible paths which means that each statement and branch is covered.

BLACK BOX TESTING

Black-box testing is a methodology of evaluating the functioning of the software, only on the basis of available specifications, and without having knowledge and understanding of the internal features and structure of the software.

This method of test can be applied to each and every level of software testing such as unit, integration, system and acceptance testing.

There are different techniques involved in Black Box testing.

1. Equivalence Class
2. Boundary Value Analysis
3. Domain Tests
4. Orthogonal Arrays
5. Decision Tables
6. State Models
7. Exploratory Testing
8. All-pairs testing

5.3 .TEST OBJECTIVE

- Pages must be activated from the identified link.
- Pages, messages and responses must not be delayed.
- To make sure that the end result meets the business and user requirements.

The goals and objectives of software testing are numerous, which when achieved help developers build a defectless and error free software and application that has exceptional performance, quality,effectiveness, security, among other things. Though the objective of testing can vary from company to company and project to project, there are some goals that are similar for all. These objectives are:

1. Verification: A prominent objective of testing is verification, which allows testers to confirm that the software meets the various business and technical requirements stated by the client before the inception of the whole project. These requirements and specifications guide the design and development of the software, hence are required to be followed rigorously. Moreover, compliance with these requirements and specifications is important for the success of the project as well as to satisfy the client.
2. Validation: Confirms that the software performs as expected and as per the requirements of the clients. Validation involves checking the comparing the final output with the expected output and then making necessary changes if their is a difference between the two.
3. Defects: The most important purpose of testing is to find different defects in the software to prevent its failure or crash during implementation or go live of the project. Defects if left undetected or unattended can harm the functioning of the software and can lead to loss of resources, money, and reputation of the client. Therefore, software testing is executed regularly during each stage of software development to find defects of various kinds. The ultimate source of these defects can be traced back to a fault introduced during the specification, design, development, or programming phases of the software.
4. Providing Information: With the assistance of reports generated during the process of software testing, testers can accumulate a variety of information related to the software and the steps taken to prevent its failure. These, then can be shared with all the stakeholders of the project for better understanding of the project as well as to establish transparency between members.
5. Preventing Defects: During the process of testing the aim of testes to identify defects and prevent them from occurring aging in the future. To accomplish this goal, software is tested rigorously by a independent testers, who are not responsible for software development.

6. Quality Analysis: Testing helps improve the quality of the software by constantly measuring and verifying its design and coding. Additionally, various types of testing techniques are used by testers, which help them achieve the desired software quality.
7. Compatibility: It helps validate application's compatibility with the implementation environment, various devices, Operating Systems, user requirements, among other things.

8. For Optimum User Experience: Easy software and application accessibility and optimum user experience are two important requirements that need to be accomplished for the success of any project as well as to increase the revenue of the client. Therefore, to ensure this software is tested again and again by the testers with the assistance of stress testing, load testing, spike testing, etc.

9. Verifying Performance & Functionality: It ensures that the software has superior performance and functionality. This is mainly verified by placing the software under extreme stress to identify and measure its all plausible failure modes. To ensure this, performance testing, usability testing,functionality testing, etc. is executed by the testers.

FEATURESTOBETESTED

•All links should take the user to the correct page.

ACCEPTANCE TESTING

User Acceptance Testing is a critical phase of any project and requires significant participation by the end user. It also ensures that the system meets the functional requirements.

.The main purpose of this test is to evaluate the system's compliance with the business requirements and verify if it is has met the required criteria for delivery to end users.

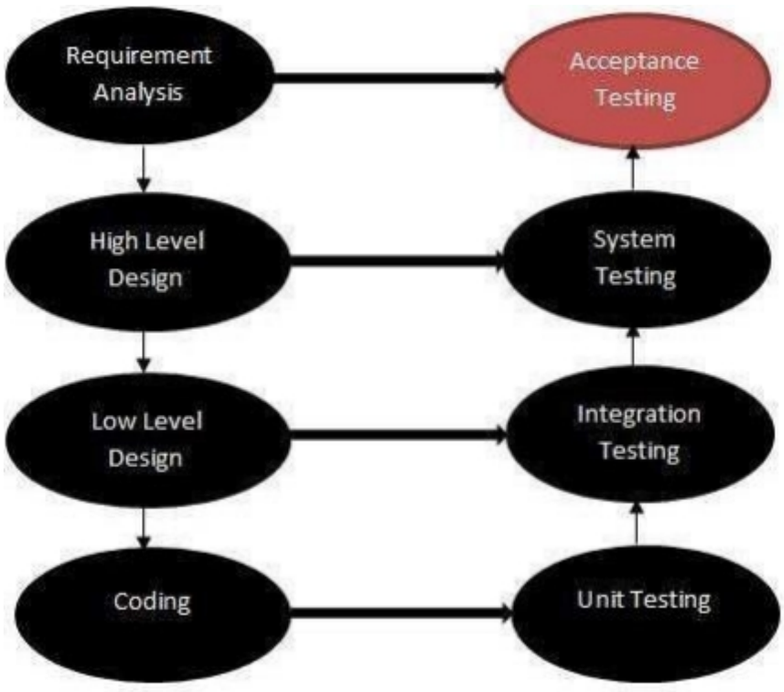

Figure 5.2 ACCEPTANCE TESTNG

5.4 TEST CASES

5.4.1 Test Case 1–Loading the homepage

- **Fail Criteria**: Unable to open Salesforce login page due to maintenance.
- **Pass Criteria**: Successfully opening of Sales force login page and slider images are shown

5.4.2Test Case2–Leads page loading

- **Fail Criteria**: Unable to open leads page and clicking on another page.
- **Pass Criteria**: User can open leads page.

5.4.3 TestCase3 –Accounts page loading

- **Fail Criteria :**Unable to open account page and clicking on another page.
- **Pass Criteria :** Successful open account page and able to see user details.

5.4.4TestCase4–Contactspageloading

- **Fail Criteria:** Unable to open contact page and clicking on another page.
- **Pass Criteria**: Successful open contact page and able to see detail so fuser and their contacts.

5.4.5TestCase5–OpportunitiesPageloading

- **Fail Criteria**: Unable to open opportunities page and click in go another page.
- **Pass Criteria**: User can open opportunities page and able to load detail so fuser weather they close the dealornot.

5.4.6TestCase6–Reportspageloading

- **Fail Criteria**: Unable to open reports page and read each behavior of customer.
- **Pass Criteria**: Successful loaded reports page and able to load details modal.

5.4.7TestCase7–ResponsivenessofCRM

- **Fail Criteria**: UI is not loading properly on mobile devices.
- **Pass Criteria**: UI is loading perfectly fine on PC.

5.5 TEST CASE RESULT SUMMARY

TestCase#	Description	Result
TC#1	Loading the home page	Passed
TC#2	Leads page loading	Passed
TC#3	Account page loading	Passed
TC#4	Contacts page loading	Passed
TC#5	Opportunities page loading	Passed
TC#6	Reports page loading	Passed
TC#7	CRM responsiveness	Passed

CHAPTER6

LIMITATION

6.1 LIMITATION

CRM helps a business acquire customer information, such as purchase habits and marketing strategies. However ,limitations can cause a CRM to fail, including company employees who do not commit to a CRM, poor communication of the system to the employees or strict rules that do not allow for flexibility or changing of the CRM when necessary.

6.2 FUTURE SCOPE

These days ,numerous small and medium-size enterprises are arising across the world. Unlike large organizations, they are reluctant to implement CRM software. However, the preferences and requirements might change with time. There was a time when CRM used to be meant for expensive infrastructure and complex technicalities. These, in turn, increased the expense of the CRM software and made it unaffordable for companies which have a small investment.

The future of CRM is set to become a lot more social. With the rise of CRM (SocialCRM), a leading CRM application can now "listen" to what your audience is talking about across social media. It can pull tweets and posts out of click stream for you to respond to.

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The next stage is for machine logic to not only respond, but decide what to do. In the next few years, CRM systems will respond intelligently to events they "hear" on social media– for example, sending out areas Suring email if a competitor has a data breach.

There are signs that Artificial Intelligence will create our marketing in the future of CRM.

Summing up, the future of CRM includes:

1. Broader and deeper market understanding of what CRM can do.
2. An increasingly complex legal environment around data.
3. Trigger-driven events and decision logic which will be used to auto matemecums.
4. A continuation of marketing and sales working together.

6.3 FUTURE ENHANCEMENT

There is no future enhancement limitation.

CHAPTER7

CONCLUSION

We have learned that achieving CRM success is the result of mastering a collection of functional, psychological, and technical factors. While functional factors such as poor business processes are certainly precursors to CRM failure, choice made during the technology implementation process have impacts on employee psychology, which can tank CRM initiatives just as much, if not more, as inefficient business processes. We have differentiated the conceptual notion of CRM from tangible CRM technology. We now understand the definition so strategic, operational, analytical, and interactive CRM. We have explored the key drivers that cause firm to under take CRM initiatives, which span both strategic and tactical goals. Some of these goal include increased revenue generation, quantifying the specific value of customer relationships, and maintaining competitive advantage. Finally, we defined customer centricity and identified it as the key orientation that firms must adopt in order to be successful.

As you can see, the purpose of CRM system is multifaceted include in monetary aspect, workflow improvement, automation of certain tasks, You are free to cast a vote for the like done , as well as to take advantage of the innovation for own demands.

CHAPTER8

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