

INSTITUTE PRESIDENCY APPLICATION

A Project Report Submitted

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MASTER OF COMPUTER APPLICATIONS

By

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LUCKNOW

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DECLARATION

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

I 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.

I have used quotation marks to identify verbatim sentences and given credit to the original authors/sources.

I 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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CERTIFICATE

Certified that **NAINSI VERMA(Univ. roll-1900290149065)** have carried out the project work having “**Institute Presidency Application**” for Master of Computer Applications from Dr.A.P.J.Abdul Kalam Technical University (AKTU), Technical University, 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.

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ABSTRACT

This system mainly reduces the work task and it is easy to maintain the records for a long time than normal hand written records as well give ease. The user can check his record details by just entering his demand no need to search all the record.

So the maintenance and Presidency of donation became very easy.

- Easy accessibility.
- It makes searching records easier and faster.
- User is no longer required to check his register in search of records, as now it can be searched over the software by choosing some options.
- The user need not to type in most of the information.
- On the whole it liberates the user from keeping lengthy manual records.
- Every one wants his/her work to be done by computer automatically and displaying the result for further manipulations.
- So this project is about providing convenience.

ACKNOWLEDGEMENTS

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Nainsi Verma

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CHAPTER 1

INTRODUCTION

1.1 PROJECT DESCRIPTION

The objective of this application is to show that how a normal person who doesn't even know programming can use this application easily, it is flexible like data can be deleted enter or updated easily.

"Institute Presidency Application" is a Salesforce application which is based on cloud computing. These days we are using databases in which coding is required to enter the data. But this time we have an application which can do our work more simpler and easier i.e. Salesforce. This application is used to store a huge amount of data properly and consistently.

Using Salesforce platform provide different features in it:

Contact Presidency

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 Presidency

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 Presidency

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 Presidency

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

Partner Presidency

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 Presidency 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 Presidency

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 SCOPE

The following documentation is a project the “Institute Presidency Application”. It describe the drawbacks of the old system and how the new proposed system overcomes these shortcomings.

The new system takes into account the various factors while designing a new system. It keeps into the account the Economical bandwidth available for the new system. The foremost thing that is taken care of is the need and requirements of the user.

It is basically for Institutes with the new trend of managing the stuffs.

- It is time saving as it doesn't involve manual process for facing difficulties due to heavy rush and safe from infectious place
- It is very user friendly.
- User across India come to the portal and register themselves for blood donation by giving some details regarding them
- It is eco-friendly as well, as it does not involve usage of papers.
- Errors are almost impossible as it requires less human interaction.
- Accuracy in work.
- Easy & fast retrieval of information.
- Decrease the load of the person involve in existing manual system.
- Access to any information individually.
- Work becomes very speedy.
- Easy to update information
- Easy availability.

1.3 IDENTIFICATION OF NEED

User need identification and analysis are concerned with what user needs rather than what he/she wants. Not until the problem has been identified, defined, and evaluated should the analyst think about solutions and whether the problem is worth working. This step intended to help the user and analyst understand the real problem rather than its symptoms. The user or the analyst may identify the need for a candidate system or for enhancement in the existing system. An analyst is responsible for performing following tasks:

- Studied strength and weakness of the current system.
- Determined “what” must be done to solve the problem.
- Prepared a functional specifications document.

These modules are developed with the aim of reducing time, reducing manpower so that everything can be easily maintained and. The volume of work and complexity are increasing year by year. This system reduces complexity and time. Also provide availability 24*7.

1.4 PROBLEM STATEMENT

In the existing system all the work is done manually. This is chance of committing errors and it will take more time to perform or checkout any information. There are so many limitations in the existing system. So the existing system should be automized. If the system is carried over manually, for everything it take more time. So it is difficult to take immediate decisions.

- In the traditional system, if you wish to analyze any record you have to turn pages many time.
- Existing systems are time consuming as it requires too much planning and so much human involvement.
- As it involves much human involvement, the cost of the system automatically gets increased.
- Existing systems require paper use, which isn't good for the environment.
- With too much human involvement, there are high chances of risk as well.
- There is too much of paper work too, which makes the tasks in the existing system, very tedious.

1.5 HARDWARE / SOFTWARE USED IN PROJECT

1.5.1 HARDWARE REQUIREMENT

Hardware	Configuration
Processor	Intel(R)core(TM)i5-7200UCPU @2.50GHz
Ram	4GB
Monitor	Normal

1.5.2 SOFTWARE REQUIREMENT

Software	Configuration
Operating System	Windows10
Language	Apex

1.5.3 SOME REQUIREMENTS

Performance Requirements:

To achieve good performance the following requirements must be satisfied

- Scalability: The ease with which a system or component can be modified to fit the problem area.
- Portability: The ease with which a system or component can be transferred from one hardware or software environment to another.
- Security: It is the ideal state where all information can be communicated across the internet / company secure from unauthorized persons being able to read it and/or manipulate it..
- Maintainability: The ease with which a software system or component can be modified to correct faults, improve performance, or other attributes, or adapt to a changed environment.
- Reliability: The ability of a system or component to perform its required functions under stated conditions for a specified period of time.
- Reusability: The degree to which a software module or other work product can be used in more than one computing program or software system.

Safety Requirements:

In case scenarios where data integrity can be compromised, measures should be taken to ensure that all changes are made before system is shutdown. The user must have a registered account to use all facility of the web application.

1.5.4 OTHER REQUIREMENTS

1.5.4.1 SALESFORCE

Salesforce is an on-demand customer relationship Presidency (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 Presidency . It involves managing all aspects of relationship between an organization and its customers.

Salesforce.com, Inc. is an American cloud-based software company headquartered in San Francisco, California. It provides customer relationship Presidency (CRM) service and also provides a complementary suite of enterprise applications focused on customer service, marketing automation, analytics, and application development.

BENEFITS OF SALESFORCE.COM

Salesforce.com is having numbers of benefits. The benefits are listed here. These are very useful to understand a value of Salesforce.com.

A. Cloud Based- The Salesforce.com is a cloud based technology. It can be possible to access the salesforce.com from anywhere anytime. The important thing is that you have an internet connection in your device from which you want to access. This will make possible for you to run you organization from anywhere.

B. On Demand Salesforce.com is providing on demand service. Developer can demand for any type of support anytime. If a user stuck with the storage space problem, than user has to create one case for the same reason and send to the salesforce.com team. They will allocate appropriate space user's account on demand .

C. Inbuilt Facilities Salesforce.com is providing numbers of inbuilt Facilities. It is not necessary that a salesforce.com user have to write code for everything. Salesforce.com is providing Drag and drop facilities. In which developer has to drag and drop the required object from the given list. But, Developer only can drag and drop the object if he or she knows the exact logic behind the object .

D. Availabilities The salesforce.com is highly available if user has the internet connection in mobile device. As discussed before, It is totally based on internet so, if user have the internet connection than user can work on it every time .

E. Cost As the salesforce.com is providing pay as you go facility, the annual cost of organization will be less. Any hardware setup is not required, so it will save the setup cost and maintenance cost too.

F. Speed The salesforce.com is providing drag and drop facility. The user does not have to write code for everything. Such logics will be added by just drag and drop at the exact logical fields to right place. So, it is obvious that the coding time will be saved and development process will be fast .

G. Security The salesforce.com is providing system level and application level security. At the system level security, developer can set the permissions. Developer can generate the access levels as per the role of employees. So, as per role base access, only authorised users can get access to their own developer org. Violation of security access will be reduced.

H. GUI The salesforce.com has a simple GUI. New user can easily understand the flow of application. For new users, salesforce.com is providing a beginner module in trail heads. From that user can easily work on the GUI related queries. User can learn from trailheads about the GUI.

1.5.4.2 APEX

Apex is strongly typed object-oriented, on-demand programming language. It is compiled, stored, and run entirely on the Force.com platform (multi-tenant environment and is very controlled in its invocations and limits).

Apex syntax looks mostly like Java and acts like stored procedures.

Apex allows developers to attach business logic to the record save process

Apex has built-in support for unit test creation and execution.

As a language apex is Integrated, Easy to use, Data focused, Rigorous, Hosted, Multi-tenant aware, automatically up-gradable, easy to test and versioned.

Apex has certain features like listed below.

- Integrated
- Easy to use
- Data Focused
- Hosted
- Multitenant aware
- Easy to test
- Versioned
- Object-Oriented

1.5 PROJECT SCHEDULE

The objective of software project planning is to provide a framework that enables the manager to make reasonable estimates of resources, costs and schedule. These estimates are made within a limited time frame at the beginning of a software project and should be updated regularly as the project progresses. In addition, estimates should attempt to define “best case” and “worst case” scenarios so that project outcomes can be bounded.

The first activity in software project planning is the determination of software scope. Function and performance allocated to software during system engineering should be assessed to establish a project scope that is ambiguous and understandable at Presidency and technical levels. Software scope describes function, performance, constraints, interfaces and reliability.

During early stages of project planning, a microscopic schedule is developed. This type of schedule identifies all major software engineering activities and the product functions to which they are applied. As the project gets under way, each entry on the macroscopic

schedule is refined into detailed schedule. Here specific software tasks are identified and scheduled.

Scheduling has following principles:

1. Compartmentalization: the project must be compartmentalized into a number of manageable activities and tasks.
2. Interdependency: the interdependencies of each compartmentalized activity or tasks must be determined.
3. Time allocation: each task to be scheduled must be allocated some number of work units.
4. Effort validation: every project has a defined number of staff members.
5. Defined responsibilities: every task that is scheduled should be assigned to a specific team member.
6. Defined outcomes: every task that is scheduled should have a defined outcome.

1.6.1 Pert chart

Program evaluation and review technique (pert) is a project scheduling method that is applied to software development.

Pert provide quantitative tool that allow the software planner to-Determine the critical path-the chain of tasks that determines the duration of the project; Establish “most likely” time estimates for individual tasks by applying statistical models; and

Calculate “boundary times” that defines a time “window” for a particular task.

Pert chart(program evolution review technique) for project-

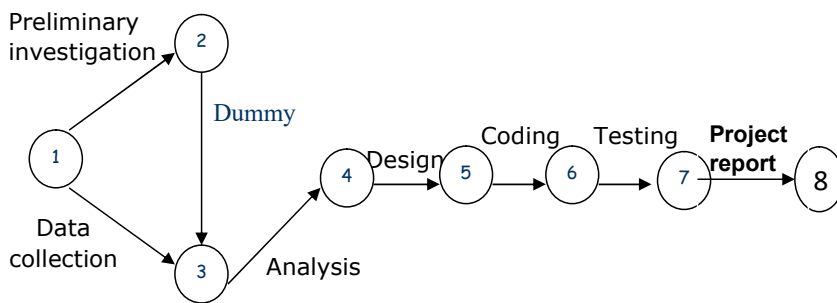


Figure 1.1 Pert chart

1.5.2 Gantt Chart

When creating a project schedule, the planner begins with a set of tasks (the work breakdown structure). If automated tools are used, the work breakdown is input as a task network. Effort, duration and start dates are input are each task network. As a consequence of this input, a timeline chart also called a Gantt chart is generated. A timeline chart is developed for entire project.

Gantt chart for project:

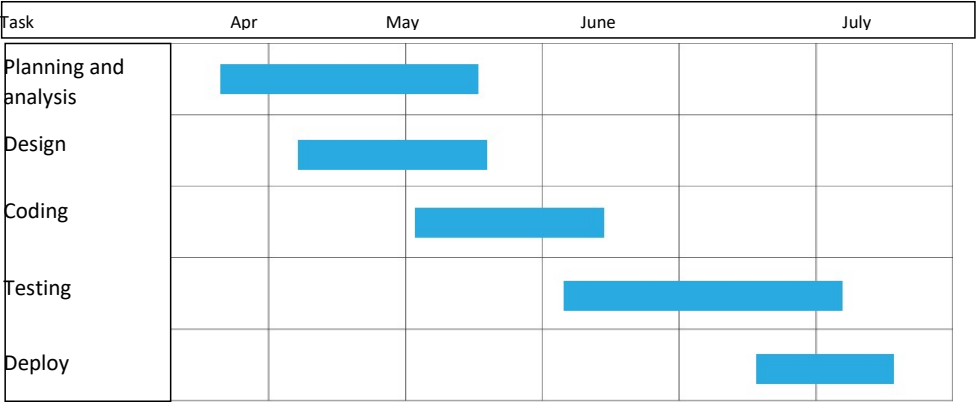


Figure 1.2:Gannt chart for project

Here horizontal bars indicate the duration of each task.

CHAPTER 2

LITERATURE REVIEW

This Report is planned for building up an Institute Presidency Application that is of significance to either an instructive establishment or a college. The system is an Intranet based application that can be gotten to all through the establishment or a predefined division. This system might be utilized for observing data for the college. Participation of the User furthermore, understudies just as signs . This system is being produced for a building college to keep up and encourage simple access to data. For this the clients must be enrolled with the system after which they can access just as alter information as per the authorizations given to them. IPA is an intranet based application that targets giving data to all the levels of management with in an association. This system can be utilized as an information/data management system for the college. For a given understudy/staff (specialized/Nontechnical) can get to the system to either transfer or download a few data from the Cloud.

2.1 COLLEGE MANAGEMENT SYSTEM

Srikant Patnaik¹, Khushboo kumari Singh, Rashmi Ranjan, Niki Kumari

It manages the college information, student information , placement information , various different types of event going on in our college . It also keeps track records of all the information regarding students those who are placed in the various organization. It has a notice board which contains information about various cultural or technical or any sports which is supposed to be held soon. With the help of this project, you can view the previous videos with the help of internet connection.

2.1 CAMPUS CLOUD – A MANAGEMENT INFORMATION SYSTEM ON CLOUD

Niraj Khot¹, Ketan Mudur², Omkar Thorat³, Yogesh Doulatramani⁴

This paper has identified several issues with systems intended for institute management and other similar systems that have been implemented in the real world. It is apparent that while successful implementation of such systems makes for consistently improved performance, institutions face several obstacles while doing so, such as revenue issues, technological issues, implementation complexity, lack of technical knowledge, and so on. Campus Cloud mostly focuses on educational institutes and thus there would be no need for the institute to substantially change its system/method of working and thus the risk would be minimal. The optimal level of integration would be defined as per the requirements of a given organization, with the modular and on-demand nature of the Campus Cloud service, providing the best possible advantages to end users.

2.3 INSTITUTE MANAGEMENT SYSTEM (IMS)

Mustafiz Sharique

Institute Management System (IMS) is an application developed in Java that will be used for management of different departments in various institutes like schools, colleges and universities. IMS will have different access level for different categories of people like general users, special users, and administrators. IMS will be programmed in Java and will use SQL for database management and can also be connected to cloud database storage so as to make the data accessible from any location on the globe. IMS will be developed using an Integrated Development Environment (IDE). We are using the Netbeans IDE. It will consist of various modules to deal with different sections that can be there within an institute. There will be different tables in database to store data about students, teachers, and parents. There will also be details of fee and examination results in the database.

2.4 CLOUD BASED COLLEGE MANAGEMENT SYSTEM

Ghanshyam Singh Rathore, Janaki Mena M

This work mainly focuses on Microsoft Azure Cloud Platform Techniques to handle the code and database with network monitoring for security reasons and virtual server of windows server 2016 and handling PHP extensions enabled for using PHP inbuilt libraries and MySQL Database. The Current work can improve with PHP Code of every page ajax method calling technique with JQuery/JavaScript Programming Language

2.5 SALESFOECE.COM-A CLOUD PROVIDER

Arockia Panimalar.S , Priyadharshan.R, Mithun Kumar.R, Visweshwaran.G

The IT goliaths like Microsoft, Infosys, IBM, Oracle, and TCS are changing from their on premises IT setups to the cloud. Cloud computing is supplanting the traditional model in which software applications introduced on-premise hardware, from desktop PCs to server rooms, contingent upon the span of the business. The proposed work is about the cloud stage which will change all the customary perspectives of software, application, and product improvement Technologies. Salesforce.com is one of the best cloud providers available in the recent scenario. There are number of reasons why IT industries are switching to the cloud. Furthermore, there are quantities of reasons why industries need to think to adopt salesforce.com cloud. The proposed work is going to concentrate on essential and regular highlights of salsforce.com. These highlights are regular for any developer to learn and use in to software, application and product advancement in salesforce.com. The objective of this proposed work is to demonstrate the available resources in the salesforce.com which are still new for the developers. This a way to deal with makes individuals recognizable with the salesforce.com cloud provider.

2.6 EXTREMELY EFFECTIVE CRM SOLUTION USING SALESFORCE

Rakesh Kumar, Yougeshwary Sharma, Sonu Agarwal , Pragya , Bhanu Bhushan Parashar

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 interactions like phone calls, Emails, Meetings and Social media with customers and also prospects penetrating to Sales, Marketing and Support. In this paper, we are discussing about Introduction to Cloud Computing, Service models in Cloud Computing, Types of Cloud Computing, Architecture of Cloud Computing and Introduction to MVC as well as SFDC MVC. Further discussing about Introduction to Salesforce, SOQL and Its Comparison Operators and at last covering Force.com IDE and CRM. The aim of this paper is to show mainly importance of Salesforce.com which is a software giant that manages to give the buyer an easy to use as well as extremely effective CRM solution.

2.7 A RESEARCH PAPER ON COLLEGE MANAGEMENT SYSTEM

Lalit Mohan Joshi M.tech scholar

This paper is aimed at developing an Online Intranet College Management System (CMS) that is of importance to either an educational institution or a college. The system (CMS) is an Intranet based application that can be accessed throughout the institution or a specified department. This system may be used for monitoring attendance for the college. Students as well as staffs logging in may also access or can be search any of the information regarding college. Attendance of the staff and students as well as marks of the students will be updated by staff. This system (C.M.S) is being developed for an engineering college to maintain and facilitate easy access to information. For this the users must be registered with the system after which they can access as well as modify data as per the permissions given to them. CMS is an intranet based application that aims at providing information to all the levels of management within an organization. This system can be used as a knowledge/information management system for the college. For a given student/staff (technical/Non-technical) can access the system to either upload or download some information from the database.

2.8 COLLEGE MANAGEMENT SYSTEM IMPROVEMENT PROJECT

Carl R. Adams, Theodore E. Kellogg

The Resource Allocations and Management Program grant funds a-project aimed at facilitating the use of management science and information systems techniques by developing, documenting, and testing a methodology that small postsecondary units can use in considering the application of these tools. This document provides a description and an overview of the data collection methods used in this project. In developing the review phase, the thrust is to provide an approach that is based on data collection and analysis and is systematic in nature."Also developed is a general description of the review phase structure that forms a basis for the development of specific data collection methodology.

2.9 ONLINE COLLEGE MANAGEMENT SYSTEM

Kartiki Datarkar ,Neha Hajare ,Nidhi Fulzele

Online College Management System (OCMS) provides a simple interface for maintenance of student information. It can be used by educational institutes or colleges to maintain the records of students easily. The creation and management of accurate, up-to-date information regarding a students' academic career is critically important in the university as well as colleges. Student information system deals with all kind of student details, academic related reports, college details, course details, curriculum, batch details, placement details and other resource related details too. It will also have faculty details, batch execution details, students' details in all aspects, the various academic notifications to the staff and students updated by the college administration.

2.10 SMART COLLAGE MANAGEMENT SYSTEM

Suman Chatterjee, Manish Kumar Thakur

Smart College Management system is an android based application which is the new technical way to manage all department related jobs. Smart Collage management system is helpful for students as well as the colleges. In the existing system all the activities are done manually. It is very costly and time consuming. In our proposed system, students can view results using Android phones. The data will be stored in the college server. To store the data SQL server will be used. The Admin, Faculty or the student should be a register user.

CHAPTER 3

FEASIBILITY STUDY

3.1 INTRODUCTION

Feasibility of the system is 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. As an exaggerated example, an organization wouldn't want to try to put Star Trek's transporters in their building—currently, this project is not technically feasible.

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

3.2 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.

3.2.1 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.

3.2.2 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.

3.2.3Economical 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 chances 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.

3.3 BENEFITS

Benefits of conducting a feasibility study:

- Improves project teams' focus
- Identifies new opportunities
- Provides valuable information for a "go/no-go" decision
- Narrows the business alternatives
- Identifies a valid reason to undertake the project
- Enhances the success rate by evaluating multiple parameters
- Aids decision-making on the project
- Identifies reasons not to proceed

3.4 SYSTEM REQUIREMENT SPECIFICATION

Any system can be designed after specifies the requirement of the user about that system. For this first of all gathered information from user by the preliminary investigation which is starting investigation about user requirement..

The data that the analysts collect during preliminary investigation are gathered through the various preliminary methods.

Documents Reviewing Organization

The analysts conducting the investigation first learn the organization involved in, or affected by the project. Analysts can get some details by examining organization charts and studying written operating procedures.

Collected data is usually of the current operating procedure:

- The information relating to clients, projects and students and the relationship between them was held manually.
- Managing of follow-ups was through manual forms.
- Complaints require another tedious work to maintain and solve.
- Payments details had to be maintained differently.

Gathering Information By Asking Questions

Interviewing is the most commonly used techniques in analysis. It is always necessary first to approach someone and ask them what their problems are, and later to discuss with them the result of your analysis.

Questionnaires

Questionnaires provide an alternative to interviews for finding out information about a system. Questionnaires are made up of questions about information sought by analyst. The questionnaire is then sent to the user, and the analyst analyzes the replies.

Electronic Data Gathering

Electronic communication systems are increasingly being used to gather information. Thus it is possible to use electronic mail to broadcast a question to a number of users in an organization to obtain their viewpoint on a particular issue.

In my project, with the help of Marg software solutions, I have send questionnaire through electronic mail to twenty employees of the company and retrieved the information regarding the problem faced by existing system.

Interviews

Interview allows the analysts to learn more about the nature of the project request and reason of submitting it. Interviews should provide details that further explain the project and show whether assistance is merited economically, operationally or technically.

One of the most important points about interviewing is that what question you need to ask.

It is often convenient to make a distinction between three kinds of question that is

- Open questions
- Closed question
- Probes

Open questions are general question that establish a persons view point on a particular subject.

Closed questions are specific and usually require a specific answer.

Probes are question that follow up an earlier answer.

CHAPTER 4

DESIGN

4.1 INTRODUCTION

System is created to solve problems. One can think of the systems approach as an organized way of dealing with a problem. In this dynamic world, the subject system analysis and design, mainly deals with the software development activities.

Since a new system is to be developed, the one most important phases of software development life cycle is system requirement gathering and analysis. Analysis is a detailed study of various operations performed by a system and their relationship within and outside the system. Using the following steps it becomes easy to draw the exact boundary of the new system under consideration.

All procedures, requirements must be analysed and documented in the form of detailed DFDs, logical data structure and miniature specifications.

System analyses also include sub-dividing of complex process involving the entire system, identification of data store and manual processes.

4.2 SYSTEM DESIGN

System design is the process of planning a new system or to replace the existing system. Simply, system design is like the blueprint for building, it specifies all the features that are to be in the finished product.

System design phase follows system analysis phase. Design is concerned with identifying functions, data streams among those functions, maintaining a record of the design decisions and providing a blueprint the implementation phase.

Design is the bridge between system analysis and system implementation. Some of the essential fundamental concepts involved in the design of application software are:

- Abstraction
- Modularity
- Verification

Abstraction is used to construct solutions to problem without having to take account of the intricate details of the various component sub problems. Abstraction allows system designer to make step-wise refinement, which at each stage of the design may hide, unnecessary details associated with representation or implementation from the surrounding environment.

Modularity is concerned with decomposing of main module into well-defined manageable units with well-defined interfaces among the units. This enhances design clarity, which in turn eases implementation, Debugging, Testing, Documenting and Maintenance of the software product. Modularity viewed in this sense is a vital tool in the construction of large software projects.

Verification is fundamental concept in software design. A design is verifiable if it can be demonstrated that the design will result in implementation that satisfies the customer's requirements. Verification is of two types namely.

- Verification that the software requirements analysis satisfies the customer's needs.
- Verification that the design satisfies the requirement analysis.

Some of the important factors of quality that are to be considered in the design of application software are:

Reliability:

The software should behave strictly according to the original specification and should function smoothly under normal conditions.

Extensibility:

The software should be capable of adapting easily to changes in the specification.

Reusability:

The software should be developed using a modular approach, which permits modules to be reused by other application, if possible.

The System Design briefly describes the concept of system design and it contains four sections. The first section briefly describes the features that the system is going to provide to the user and the outputs that the proposed system is going to offer.

The second section namely Logical Design describes the Data Flow Diagrams, which show clearly the data movements, the processes and the data sources, and sinks, E-R diagrams which represent the overall logical design of the database, and high-level process structure of the system.

Preliminary Design:

Preliminary design is basically concerned with deriving an overall picture of the system. Deriving entire system into modules and sub-modules while keeping Cohesion and Coupling factors in mind. Tools, which assist in preliminary design process, are Data Flow Diagrams.

Code design:

The purpose of code is to facilitate the identification and retrieval for items of information. A code is an ordered collection of symbols designed to provide unique identification of an entity or attribute. To achieve unique identification there must be only one place where the identified entity or the attribute can be entered in the code; conversely there must be a place in the code for every thing that is to be identified. This mutually exclusive feature must be built into any coding system.

The codes for this system are designed with two features in mind. Optimum human oriented use and machine efficiency They are also operable i.e., they are adequate for present and anticipate data processing both for machine and human use.

Input /Output design :

is a part of overall system design, which requires very careful attention. The main objectives of input design are:

- To produce a cost-effective method of input.
- To achieve the highest possible level of accuracy.
- To ensure that the input is acceptable to and understood by the user staff.

Outputs from computer systems are required primarily to communicate the results of processing to users. They are also to provide a permanent hard copy of these results for later consultation.

The various types of outputs are required by this system are given below:

- External outputs, whose destination is outside the concern and which require special attention because they, project the image of the concern.
- Internal outputs, whose destination is within the concern and which require careful design because they are the user's main interface within the computer.
- Operation outputs, whose use is purely within the computer department, E.g., program listings, usage statistics etc,

4.3 SDLC

Software Development Life Cycle (SDLC) is a framework that defines the steps involved in the development of software at each phase. It covers the detailed plan for building, deploying and maintaining the software.

SDLC defines the complete cycle of development i.e. all the tasks involved in planning, creating, testing, and deploying a Software Product.



Figure 4.1: Above image depicting the planning step

SDLC Phases

Given below are the various phases:

- Requirement gathering and analysis
- Design
- Implementation or coding
- Testing
- Deployment
- Maintenance

Requirement Gathering and Analysis

During this phase, all the relevant information is collected from the customer to develop a product as per their expectation. Any ambiguities must be resolved in this phase only.

Business analyst and Project Manager set up a meeting with the customer to gather all the information like what the customer wants to build, who will be the end-user, what is the purpose of the product. Before building a product a core understanding or knowledge of the product is very important.

Once the requirement gathering is done, an analysis is done to check the feasibility of the development of a product. In case of any ambiguity, a call is set up for further discussion.

Once the requirement is clearly understood, the SRS (Software Requirement Specification) document is created. This document should be thoroughly understood by the developers and also should be reviewed by the customer for future reference.

Design

In this phase, the requirement gathered in the SRS document is used as an input and software architecture that is used for implementing system development is derived.

Implementation or Coding

Implementation/Coding starts once the developer gets the Design document. The Software design is translated into source code. All the components of the software are implemented in this phase.

Testing

Testing starts once the coding is complete and the modules are released for testing. In this phase, the developed software is tested thoroughly and any defects found are assigned to developers to get them fixed.

Deployment

Once the product is tested, it is deployed in the production environment or first UAT (User Acceptance testing) is done depending on the customer expectation.

Maintenance

After the deployment of a product on the production environment, maintenance of the product i.e. if any issue comes up and needs to be fixed or any enhancement is to be done is taken care by the developers.

4.4 SOFTWARE ENGG. PARADIGM APPLIED

Software engineering is a layered technology. The foundation for software engineering is the process layer. Software engineering processes the glue that holds the technology layers together and enables ratios and timely development of computer software. Process defines a framework for a set of key process areas that must be established for effective delivery of software engineering technology.

Software engineering methods provide the technical how-to's for building software. Methods encompass a broad array of tasks that include requirements analysis, design, program construction, testing and support. Software engineering tools provide automated or semi-automated support for the process and the methods. When tools are integrated so that information created by one tool can be used by another tool, a system for the support of software development, called computer-aided software engineering is established.

The following paradigms are available:

1. The Waterfall Model
 2. The Prototyping Model
 3. The Spiral model
- Etc.

4.4.1 The Prototype model

The prototype model requires that before carrying out the development of actual software, a working prototype of the system should be built. A prototype is a toy implementation of the system. A prototype usually turns out to be a very crude version of the actual system, possible exhibiting limited functional capabilities, low reliability, and inefficient performance as compared to actual software. In many instances, the client only has a general view of what is expected from the software product. In such a scenario where there is an absence of detailed information regarding the input to the system, the processing needs, and the output requirement, the prototyping model may be employed.

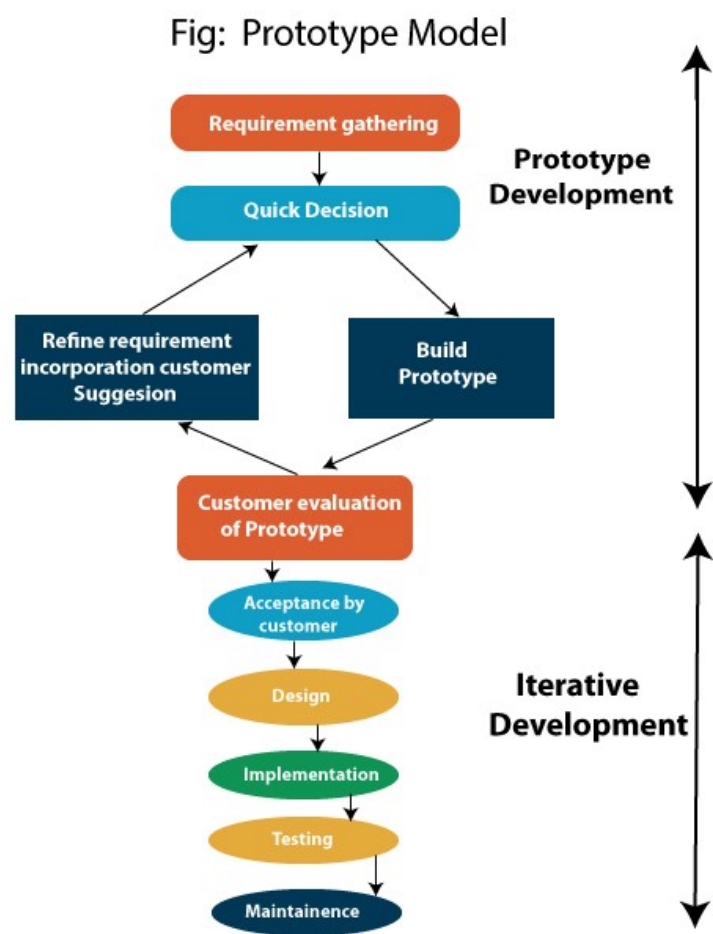


Figure 4.2:Prototype model

4.4.1.1 Advantage of Prototype Model

1. Reduce the risk of incorrect user requirement
2. Good where requirement are changing/uncommitted
3. Regular visible process aids Presidency
4. Support early product marketing
5. Reduce Maintenance cost.
6. Errors can be detected much earlier as the system is made side by side.

4.4.1.2 Disadvantage of Prototype Model

1. An unstable/badly implemented prototype often becomes the final product.
2. Require extensive customer collaboration
 - o Costs customer money
 - o Needs committed customer
 - o Difficult to finish if customer withdraw
 - o May be too customer specific, no broad market
3. Difficult to know how long the project will last.
4. Easy to fall back into the code and fix without proper requirement analysis, design, customer evaluation, and feedback.
5. Prototyping tools are expensive.
6. Special tools & techniques are required to build a prototype.
7. It is a time-consuming process.

4.5 DFD

DFD is the abbreviation for **Data Flow Diagram**. The flow of data of a system or a process is represented by DFD. It also gives insight into the inputs and outputs of each entity and the process itself. DFD does not have control flow and no loops or decision rules are present. Specific operations depending on the type of data can be explained by a flowchart. Data Flow Diagram can be represented in several ways.

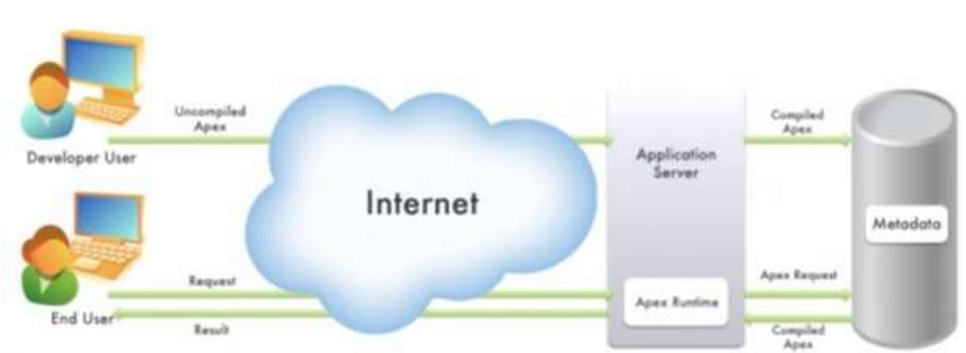


Figure 4.3 Apexworking

Level0 DFD :

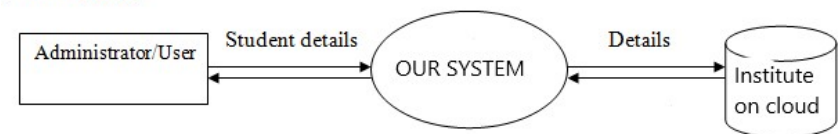


Figure 4.4 Context level

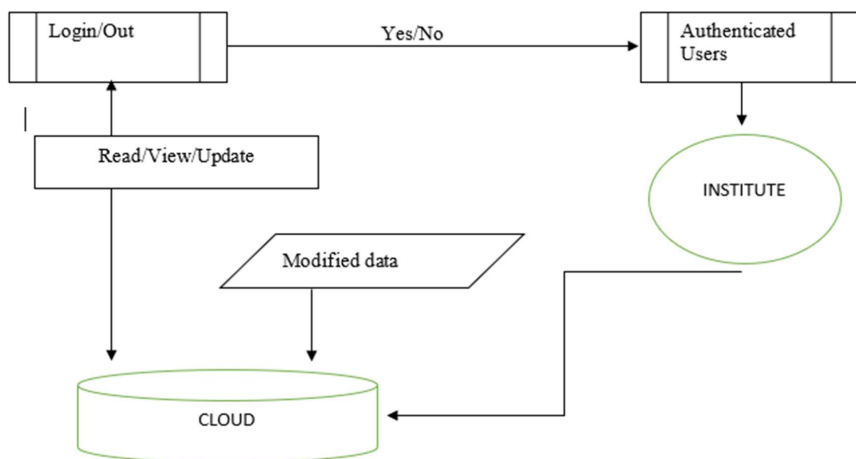


Figure 4.5 dfd 1 level

4.6 ER DIAGRAM

An Entity-relationship model (ER model) describes the structure of a database with the help of a diagram, which is known as Entity Relationship Diagram (ER Diagram). An ER model is a design or blueprint of a database that can later be implemented as a database. The main components of E-R model are: entity set and relationship set.

An ER diagram has three main components:

1. Entity
2. Attribute
3. Relationship

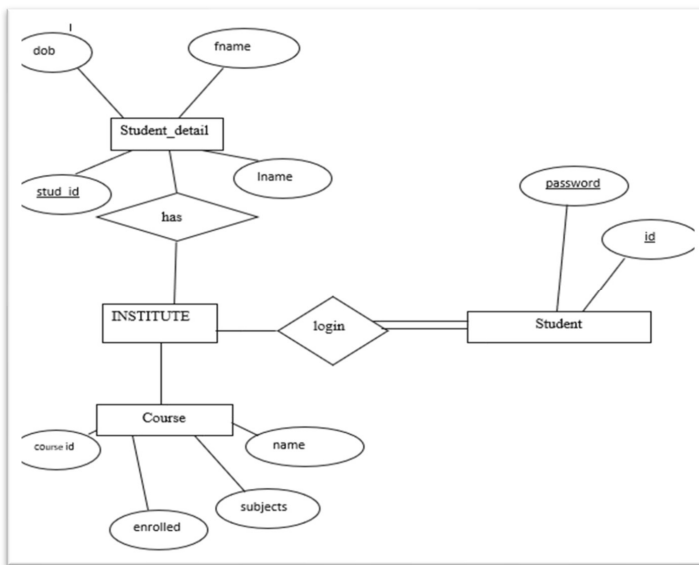


Figure 3.2:ER diagram of system

4.6.1 ER- Diagram Notations

ER- Diagram is a visual representation of data that describe how data is related to each other.

- **Rectangles:** This symbol represent entity types
- **Ellipses :** Symbolrepresent attributes
- **Diamonds:** This symbolrepresents relationship types
- **Lines:** It links attributes to entity types and entity types with other relationship types
- **Primary key:** attributes are underlined
- **Double Ellipses:** Represent multi-valued attributes

CHAPTER 5

REPORT

5.1 GIST

The diagram **figure 4.1**, depicting our system.
We have designed and developed an easy, Useful, reliable system.

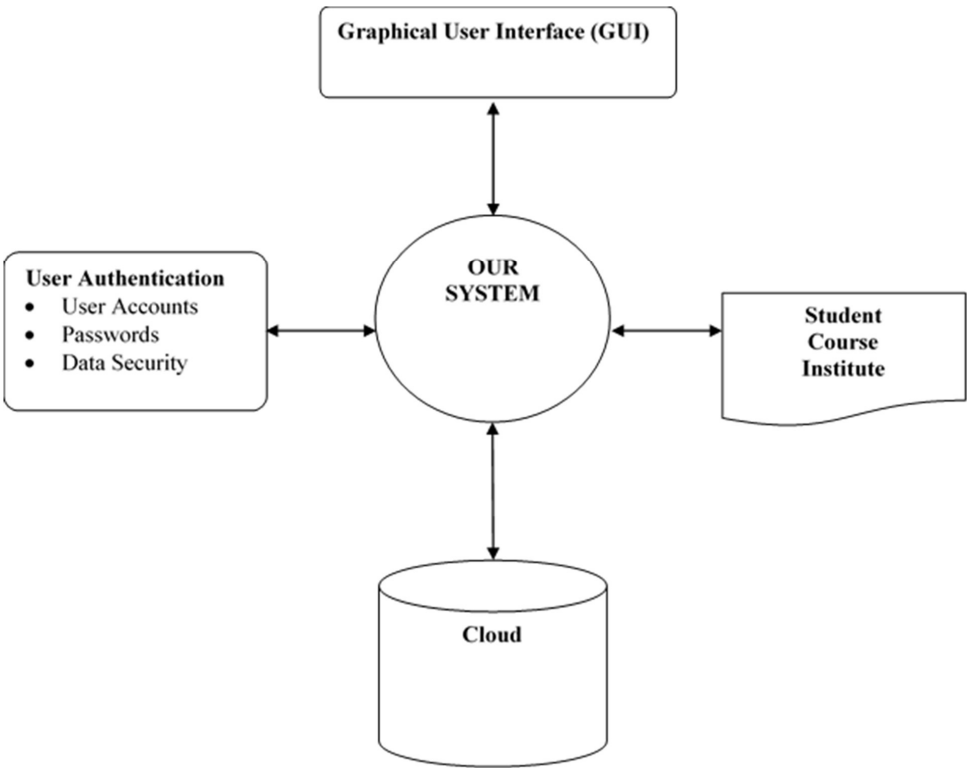
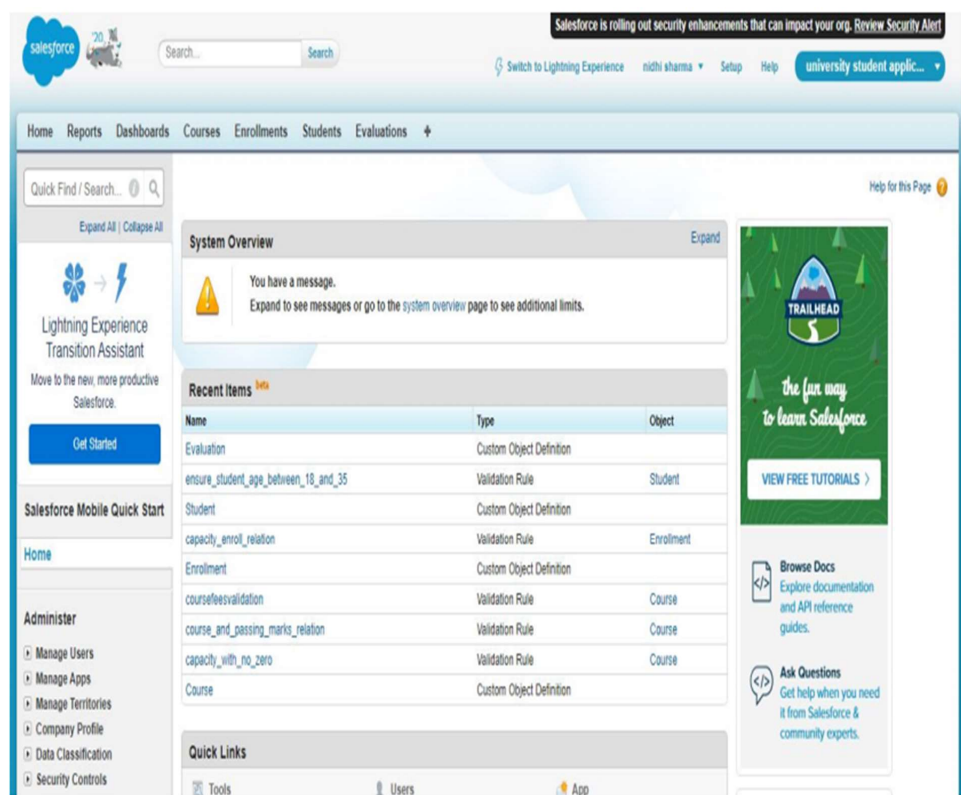


Figure 5.1 System

This gives a high level view of the system with the main components and the services they provide and how they communicate. It consists of the general graphical user interface facilities.

5.2 SOME SCREENSHOTS

HOME PAGE



COURSES

Home

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MCA

nidhi.sharma

Recycle Bin

Course Edit

New Course

Help for this Page

Course Edit

Save Save & New Cancel

Information

Required Information

Course Name

Course ID

Available Seats

Owner nidhi.sharma

Course details

Course Fees

Capacity

Student details

Passing Marks

Contact Number

Save Save & New Cancel

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VALIDATION ON COURSES

Course Validation Rule

Help for this Page

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Validation Rule Detail

Edit Clone

Rule Name

capacity_with_no_zero

Active

✓

Error Condition Formula

Capacity__c < 1

Error Message

value should be greater than 0

Error Location

Capacity

Description

Created By

nidhi.sharma 6/19/2019 3:21 AM

Modified By

nidhi.sharma 6/19/2019 10:37 AM

Edit Clone

VALIDATIONS

CoursesEnrollmentsStudentsEvaluations

Course Validation Rule

Back to Course

Help for this Page

Validation Rule Detail

EditClone

Rule Name	course_and_passing_marks_relation	Active	✓
Error Condition Formula	IF (Course_Fees__c > 3000, passing_marks__c > 20, IF (Course_Fees__c > 2000, passing_marks__c < 30, IF (Course_Fees__c < 2000, passing_marks__c < 40, null)))		
Error Message	value entered is incorrect	Error Location	Top of Page
Description			
Created By	nidhi sharma, 6/19/2019 10:45 AM	Modified By	nidhi sharma, 6/20/2019 11:39 AM

EditClone

VALIDATION ON COURSE_FEE

CoursesEnrollmentsStudentsEvaluations

Course Validation Rule

Back to Course

Help for this Page

Validation Rule Detail

EditClone

Rule Name	coursefeesvalidation	Active	✓
Error Condition Formula	Course_Fees__c >= 10000		
Error Message	invalid rule	Error Location	Course Fees
Description			
Created By	nidhi sharma, 7/28/2019 7:04 AM	Modified By	nidhi sharma, 7/28/2019 7:04 AM

EditClone

ENROLLMENT

20

Search...

Search

Salesforce is rolling out security enhancements that can impact your org. [Review Security Alert](#)

Switch to Lightning Experience

nidhi.sharma

Setup

Help

university student applic...

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Save & New

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Information

Required Information

student_Rfield

Course Rfield

Fees

Save

Save & New

Cancel

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VALIDATION ON ENROLLMENT

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Students

Evaluations

Enrollment Validation Rule

Help for this Page

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Validation Rule Detail

Edit

Clone

Rule Name

capacity_enroll_relation

Active

✓

Error Condition Formula

Course_Rfield__r.Available_seats__c < 1

Error Message

Invalid value

Error Location

Course Rfield

Description

Created By

nidhi.sharma, 6/20/2019 11:51 AM

Modified By

nidhi.sharma, 6/22/2019 6:11 AM

Edit

Clone

STUDENTS

Home

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Recent Items

JACO

nidhi sharma

Recycle Bin

Student Edit

New Student

Help for this Page

Student Edit

Save

Save & New

Cancel

Student Details

Required Information

Scholarship Status

--None--

Average marks

Information

student Name

Owner

nidhi sharma

Age

Results

Result

--None--

System Information

E-mail

Scholarship Details

Request Scholarship

☐

Save

Save & New

Cancel

VALIDATIONS ON STUDENT

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Evaluations

Student Validation Rule

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Help for this Page

Validation Rule Detail

Edit

Clone

Rule Name

ensure_student_age_between_18_and_35

Active

☒

Error Condition Formula

Age__c < 18 || Age__c > 35

Error Message

not valid

Error Location

Age

Description

Created By

nidhi sharma

6/16/2019 1:30 AM

Modified By

nidhi sharma

6/16/2019 1:30 AM

Edit

Clone

EVALUATION

salesforce

20%

Search

Search

Switch to Lightning Experience

nidhi sharma

Setup

Help

university student applic...

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Save & New

Cancel

Information

Required Information

student Rfield

Course Rfield

marks scored

Save

Save & New

Cancel

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RELATIONSHIPS

Custom Fields & Relationships

New

Field Dependencies

Set History Tracking

[Custom Fields & Relationships Help](#)

Action	Field Label	API Name	Data Type	Indexed	Controlling Field	Modified By	Track History
Edit Del	Course Rfield	Course_Rfield__c	Master-Detail(Course)	✓		nidhi sharma 6/15/2019 12:46 PM	Track History
Edit Del	marks scored	marks_scored__c	Number(18, 0)			nidhi sharma 6/16/2019 2:24 AM	Track History
Edit Del	student Rfield	student_Rfield__c	Master-Detail(Student)	✓		nidhi sharma 6/9/2019 7:10 AM	Track History

CHAPTER 6

CODING

This chapter contains some codes of the project. The goal of the coding is to translate the design of the system into code in a given programming language. For a given design, the aim of this phase is to implement the design in the best possible manner. The coding phase affects both testing and maintenance profoundly.

Some Codes are as Written below:

```
Public class Contacts Today Controller{
    @AuraEnabled
    Public static List<Contact>getContacts ForToday(){
        List<Task>my_tasks=[SELECT Id,Subject,WhoId FROM Task WHERE OwnerId=
        :UserInfo.getUserId() AND IsClosed=false AND WhoId!=null];
        List<Event>my_events=[SELECT Id,Subject,WhoId FROM
        Event WHERE OwnerId=
        :UserInfo.getUserId() AND StartDateTime>=:Date.today() AND WhoId!=null];
        List<Case>my_cases=[SELECT ID,ContactId,Status,Subject FROM
        Case WHERE
        OwnerId=:UserInfo.getUserId() AND IsClosed=false AND ContactId!=null];
        Set<Id>contactIds=new Set<Id>();
        for(Task tsk:my_tasks){
            contactIds.add(tsk.WhoId);
        }
        for(Event evt:my_events){
            contactIds.add(evt.WhoId);
        }
        for(Case cse: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;
}
}

```

```

@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;
Tasktask=newTask(
Subject='TestTask',
WhoId=c.Id,
Status='NotStarted'
);
inserttask;
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(contacts[0].Description.containsIgnoreCase(evt.Subject));
System.assert(contacts[0].Description.containsIgnoreCase(cse.Subject));
}

@Test
publicstaticvoidtestGetNoContactsForToday(){
Accountacct=newAccount(
Name='TestAccount'
);
insertacct;

Contactc=newContact(
AccountId=acct.Id,
FirstName='Test',
LastName='Contact'

);
insertc;

Tasktask=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());
}
}

```

```

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==t
        rue){
            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;
        }
    }
}

```

```

@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='Completed'
    );
    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());
}

```



```

);
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());
}

```

This are some codes which are used in our project we have uploaded the packages also on github Repository. URL for packages.

[URL- https://github.com/NV9C](https://github.com/NV9C)

CHAPTER 7

TESTING

7.1 INTRODUCTION

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.

7.1.1 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
- successful test is one that uncovers an as yet undiscovered error.

7.1.2 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.

Pareto principle states that 80 percent of all errors uncovered during testing will likely be traceable to 20 percent of all program components.

Testing should begin “in the small “and progress toward testing “in the large.”

Exhaustive testing is not possible.

7.2 LEVEL OF TESTING

There are different levels of testing

->Unit Testing

->Integration Testing

->System Testing

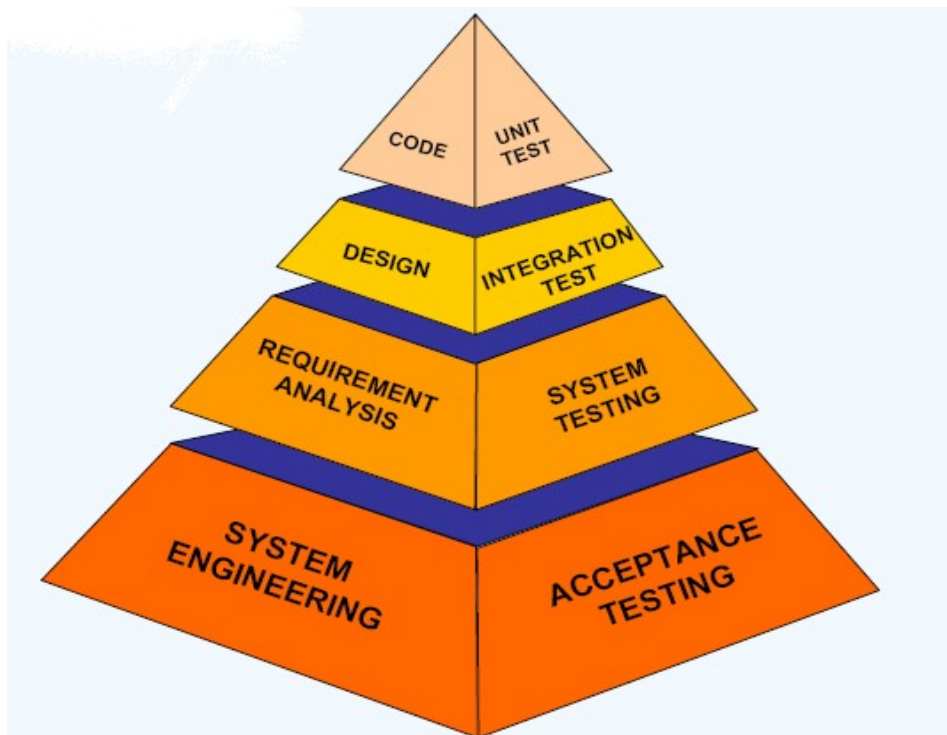


Figure 7.1:Testing pyramid

7.2.1 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.

7.2.2 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.

- 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:

7.2.3 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

7.3 SOME IMPORTANT OBSERVATIONS

7.3.1 System Testing and Validation Results.

System testing was done after the system was duly coded. Individual modules of the system were checked to ensure they are fully functional units before the integrating them. This was done by examining each unit; each script was checked to ensure that it functions as required and that it performed exactly as intended. The success of each individual unit gave us the go ahead to carryout integration testing.

The system was validated using a short questionnaire that was filled by representatives of the users who were let to interact with the system using test data and provided feedback about the system features. This was done to assess if the system met their needs and requirements as regards paying fees to the university. It was found out that the system performed in conformance to the then defined user needs and requirements. Results of the validation are shown as percentages of respondents against each requirement.

7.3.2 Testing Test Scenarios

1. Check if the page load time is within the acceptable range.
2. Check the page load on slow connections.
3. Check the response time for any action under a light, normal, moderate, and heavy load conditions.
4. Check the performance of database stored procedures and triggers.
5. Check the database execution time.
6. Check for load testing of the application.
7. Check for the Stress testing of the application.
8. Check CPU and memory usage under peak load conditions.

We have checked for scenarios and find that our system performing well in the circumstances.

7.4 TEST CASE RESULT SUMMARY

TestCase#	Description	Result
TC#1	Loading the home page	Passed
TC#2	Login	Passed
TC#3	Validating	Passed
TC#4	Content	Passed
TC#5	Course page loading	Passed
TC#6	Reports page loading	Passed
TC#7	Logout	Passed

CHAPTER 8

CONCLUSION AND FUTURE SCOPE

8.1 CONCLUSION

A software project means a lot of experience. I learned a lot through this project. This project has sharpened our concept cloud computing.

It provides easy methods to manage the load of work easily for the users.

It is much fast and more efficient as the data once entered can be used and accessed easily.

This project has given me an ample opportunity to design, code, test and implements an application. This has helped in putting into practice of various Software Engineering principles concepts like maintaining integrity and consistency of data.

8.2 FUTURE SCOPE

- The Future scope is to make the system more user friendly and enhanced.
- And we will make Mobile app for our system.
- I will add Helping BOT in the system.
- Online examination module would be introduced to conduct online examination.
- Further, the faculty can upload the videos of their lectures on to this site and students who had missed those classes can view those videos.

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