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GSU Event Portal

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ABSTRACT

This application system for Hotel Booking is an intranet application, which provides various hotels that are available for the users in the city. The application helps users to select their favorite dishes among the continental dishes that are available. Users also have the choice of choosing their flavors, ingredients, and can add many other choices to their recipe. This application provides an option through which users who have diabetes and blood pressure can place their order according to their choice. After placing the orders, users can add their item to the cart along with the previous orders they made and they can pay through credit card online system. After completing the payment process, application directs the users to the map to locate their address and their order is delivered to their doorstep. Besides the online order facility, the application has an alluring facility, through which users can book for dining and they can also book a banquet or can arrange a hall for parties. Through the responses given by the users the applications provide list of hotels or restaurants that have the required facilities.

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Feature Description

1. Feature Description:

To provide flexibility to the users, the interfaces have been developed that are accessible through a browser. The GUI'S at the top level have been categorized as

1. Administrative user interface
2. The operational or generic user interface

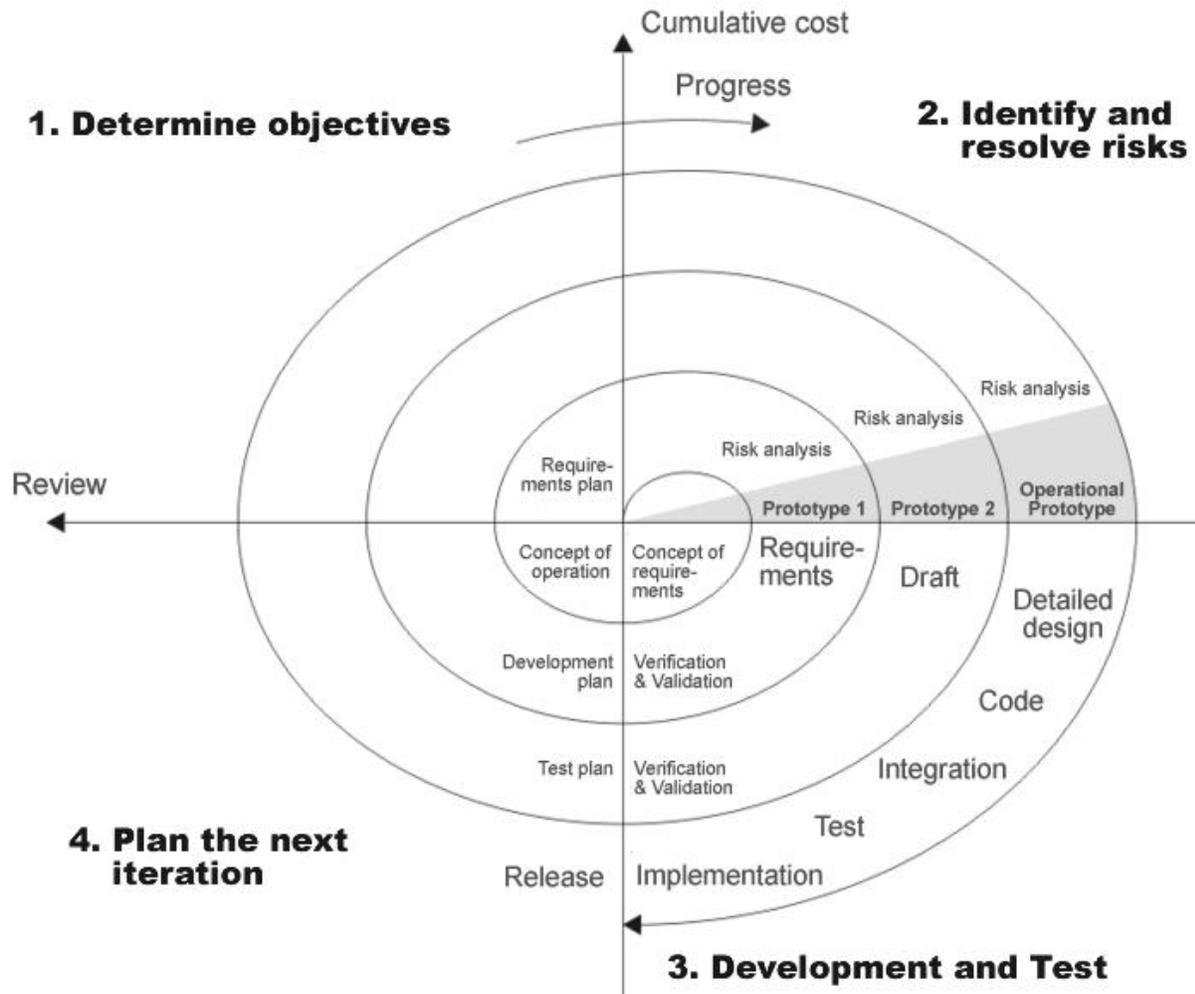
The 'administrative user interface' concentrates on the consistent information that is practically, part of the organizational activities and which needs proper authentication for the data collection. These interfaces help the administrators with all the transactional states like Data insertion, Data deletion and Date updating along with the extensive data search capabilities.

The 'operational or generic user interface' helps the end users of the system in transactions through the existing data and required services. The operational user interface also helps the ordinary users in managing their own information in a customized manner as per the included flexibilities

Technical Description

Technical Description:

SDLC (Spiral Model):



SDLC is nothing but Software Development Life Cycle. It is a standard which is used by software industry to develop good software.

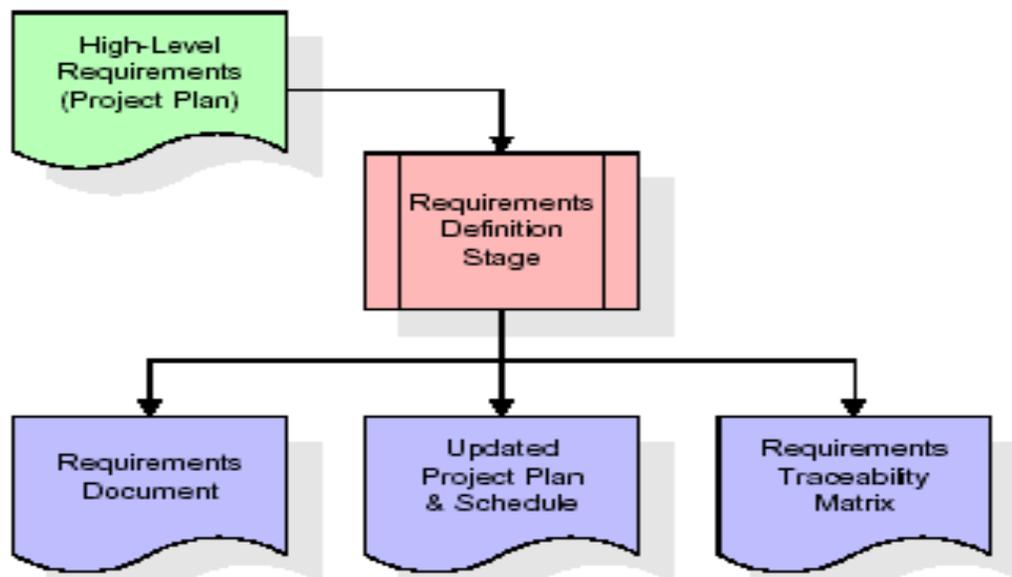
Stages in SDLC:

- ◆ Requirement Gathering
- ◆ Analysis
- ◆ Designing

- ◆ Coding
- ◆ Testing
- ◆ Maintenance

Requirements Gathering stage:

The requirements gathering process takes as its input the goals identified in the high-level requirements section of the project plan. Each goal will be refined into a set of one or more requirements. These requirements define the major functions of the intended application, define operational data areas and reference data areas, and define the initial data entities. Major functions include critical processes to be managed, as well as mission critical inputs, outputs and reports. A user class hierarchy is developed and associated with these major functions, data areas, and data entities. Each of these definitions is termed a Requirement. Requirements are identified by unique requirement identifiers and, at minimum, contain a requirement title and textual description.



These requirements are fully described in the primary deliverables for this stage: the Requirements Document and the Requirements Traceability Matrix (RTM). The requirements document contains complete descriptions of each requirement, including diagrams and references to external documents as necessary. Note that detailed listings of database tables and fields are not included in the requirements document.

The title of each requirement is also placed into the first version of the RTM, along with the title of each goal from the project plan. The purpose of the RTM is to show that the product components developed during each stage of the software development lifecycle are formally connected to the components developed in prior stages.

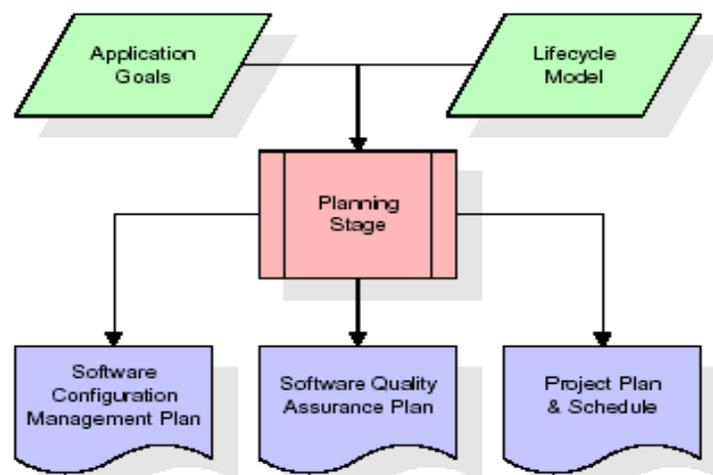
In the requirements stage, the RTM consists of a list of high-level requirements, or goals, by title, with a listing of associated requirements for each goal, listed by requirement title. In this hierarchical listing, the RTM shows that each requirement developed during this stage is formally linked to a specific product goal. In this format, each requirement can be traced to a specific product goal, hence the term requirements traceability.

The outputs of the requirements definition stage include the requirements document, the RTM, and an updated project plan.

- ◆ Feasibility study is all about identification of problems in a project.
- ◆ No. of staff required to handle a project is represented as Team Formation, in this case only modules are individual tasks will be assigned to employees who are working for that project.
- ◆ Project Specifications are all about representing of various possible inputs submitting to the server and corresponding outputs along with reports maintained by administrator

Analysis Stage:

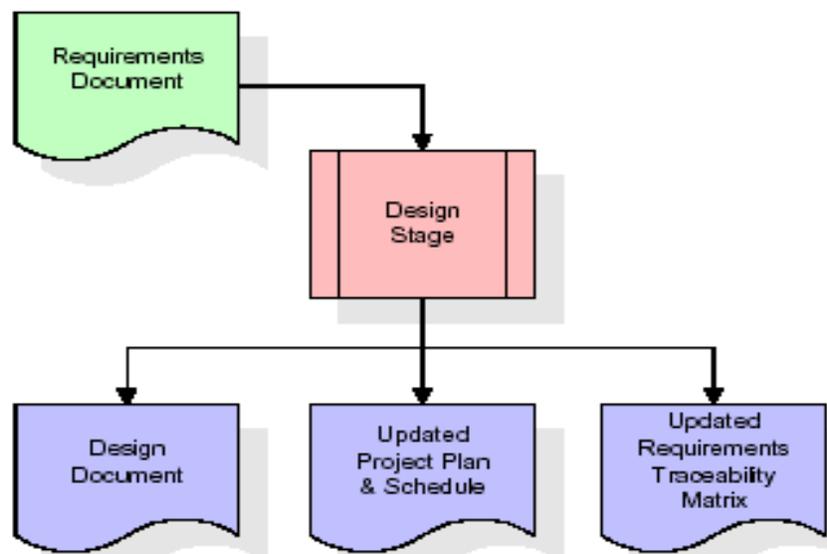
The planning stage establishes a bird's eye view of the intended software product, and uses this to establish the basic project structure, evaluate feasibility and risks associated with the project, and describe appropriate management and technical approaches.



The most critical section of the project plan is a listing of high-level product requirements, also referred to as goals. All of the software product requirements to be developed during the requirements definition stage flow from one or more of these goals. The minimum information for each goal consists of a title and textual description, although additional information and references to external documents may be included. The outputs of the project planning stage are the configuration management plan, the quality assurance plan, and the project plan and schedule, with a detailed listing of scheduled activities for the upcoming Requirements stage, and high level estimates of effort for the out stages.

Designing Stage:

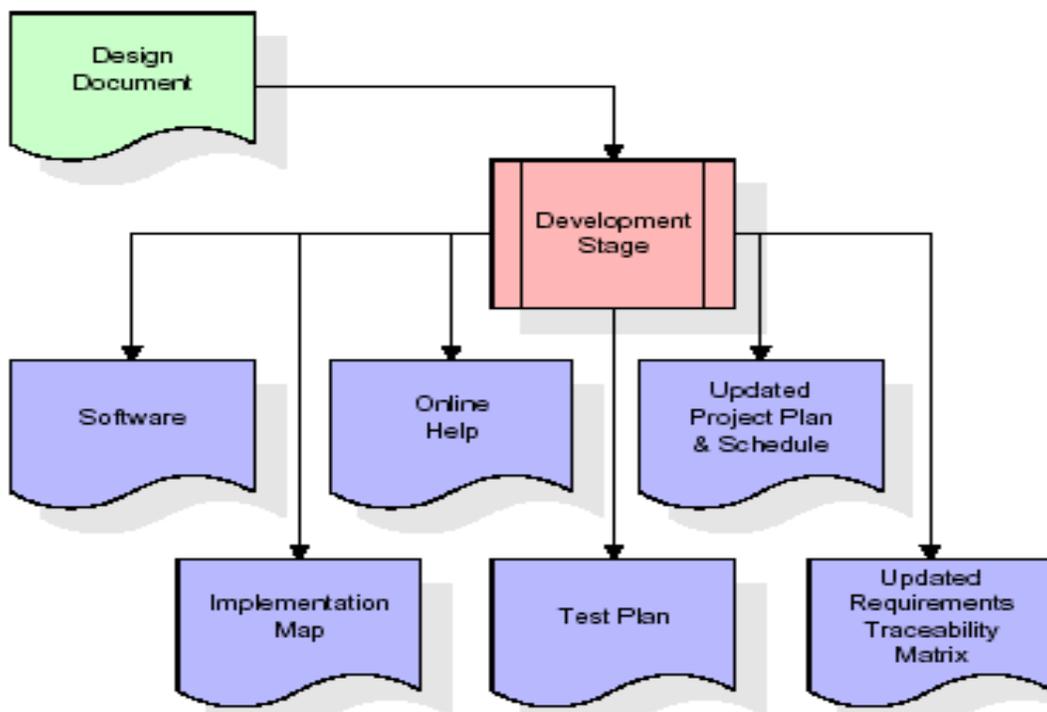
The design stage takes as its initial input the requirements identified in the approved requirements document. For each requirement, a set of one or more design elements will be produced as a result of interviews, workshops, and/or prototype efforts. Design elements describe the desired software features in detail, and generally include functional hierarchy diagrams, screen layout diagrams, tables of business rules, business process diagrams, pseudo code, and a complete entity-relationship diagram with a full data dictionary. These design elements are intended to describe the software in sufficient detail that skilled programmers may develop the software with minimal additional input.



When the design document is finalized and accepted, the RTM is updated to show that each design element is formally associated with a specific requirement. The outputs of the design stage are the design document, an updated RTM, and an updated project plan.

Development (Coding) Stage:

The development stage takes as its primary input the design elements described in the approved design document. For each design element, a set of one or more software artifacts will be produced. Software artifacts include but are not limited to menus, dialogs, data management forms, data reporting formats, and specialized procedures and functions. Appropriate test cases will be developed for each set of functionally related software artifacts, and an online help system will be developed to guide users in their interactions with the software.

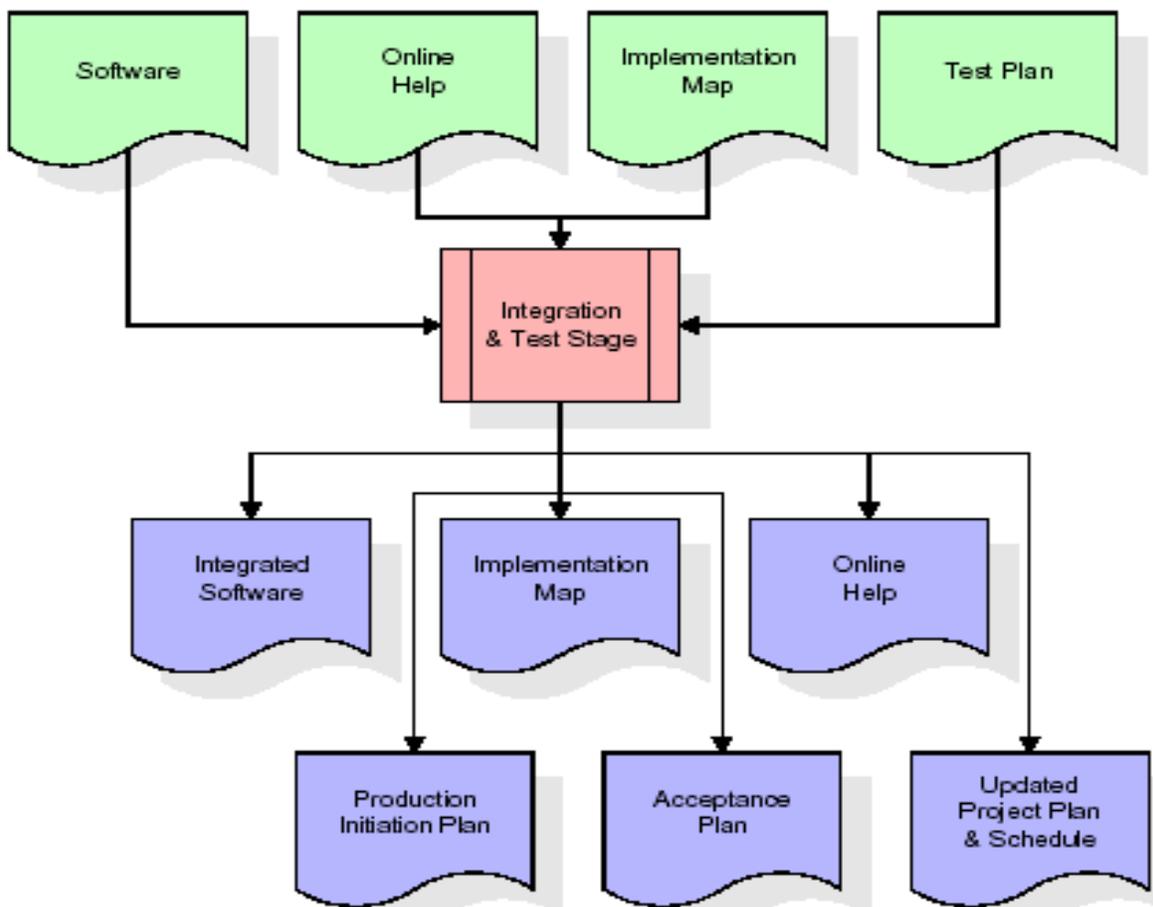


The RTM will be updated to show that each developed artifact is linked to a specific design element, and that each developed artifact has one or more corresponding test case items. At this point, the RTM is in its final configuration. The outputs of the development stage include a fully functional set of software that satisfies the requirements and design elements previously documented, an online help system that describes the operation of the software, an implementation map that identifies the primary code entry points for all major system functions,

a test plan that describes the test cases to be used to validate the correctness and completeness of the software, an updated RTM, and an updated project plan.

Integration & Test Stage:

During the integration and test stage, the software artifacts, online help, and test data are migrated from the development environment to a separate test environment. At this point, all test cases are run to verify the correctness and completeness of the software. Successful execution of the test suite confirms a robust and complete migration capability. During this stage, reference data is finalized for production use and production users are identified and linked to their appropriate roles. The final reference data (or links to reference data source files) and production user list are compiled into the Production Initiation Plan.



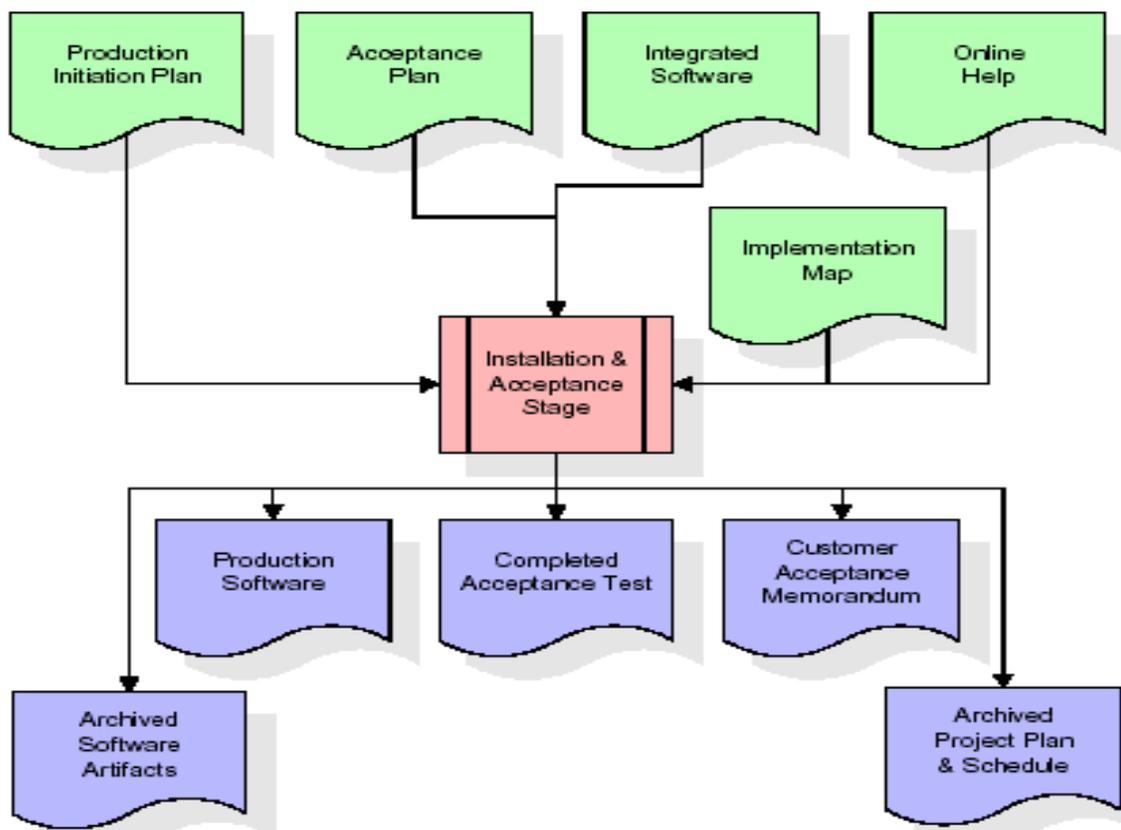
The outputs of the integration and test stage include an integrated set of software, an online help system, an implementation map, a production initiation plan that describes reference data

and production users, an acceptance plan which contains the final suite of test cases, and an updated project plan.

◆ **Installation & Acceptance Test:**

During the installation and acceptance stage, the software artifacts, online help, and initial production data are loaded onto the production server. At this point, all test cases are run to verify the correctness and completeness of the software. Successful execution of the test suite is a prerequisite to acceptance of the software by the customer.

After customer personnel have verified that the initial production data load is correct and the test suite has been executed with satisfactory results, the customer formally accepts the delivery of the software.



The primary outputs of the installation and acceptance stage include a production application, a completed acceptance test suite, and a memorandum of customer acceptance of the software. Finally, the PDR enters the last of the actual labor data into the project schedule and locks the project as a permanent project record. At this point the PDR "locks" the project by

archiving all software items, the implementation map, the source code, and the documentation for future reference.

Maintenance:

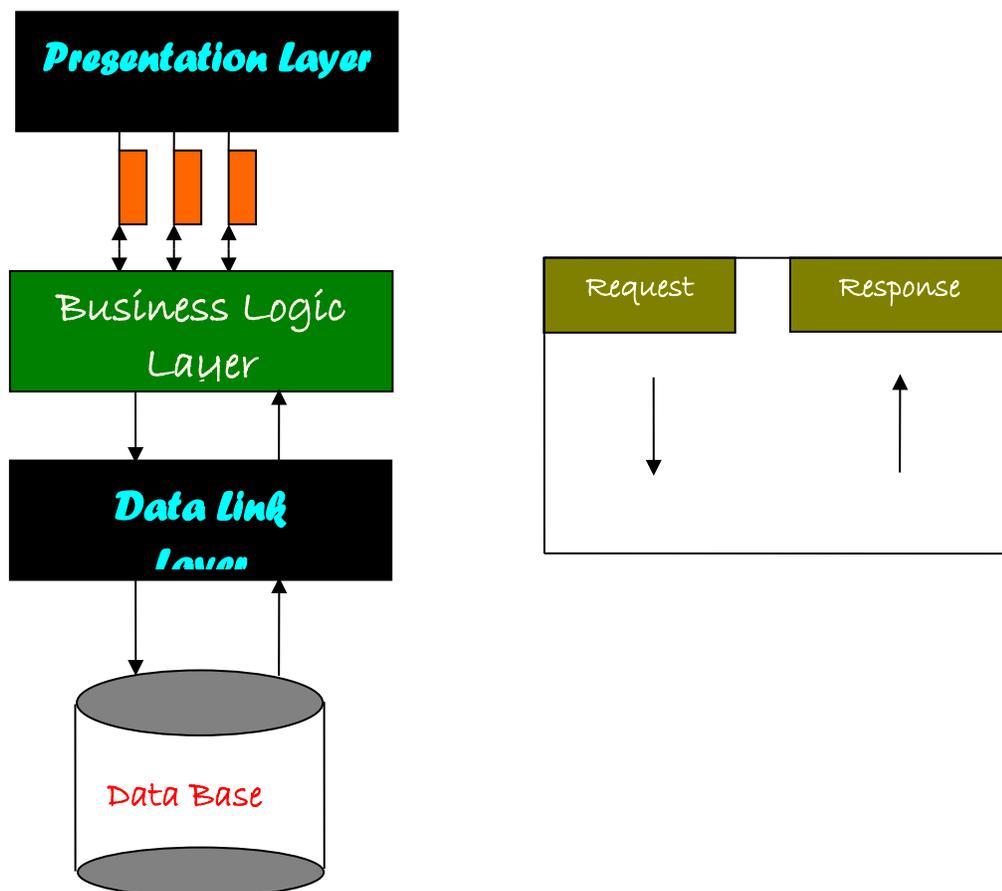
Outer rectangle represents maintenance of a project, Maintenance team will start with requirement study, understanding of documentation later employees will be assigned work and they will undergo training on that particular assigned category.

For this life cycle there is no end, it will be continued so on like an umbrella (no ending point to umbrella sticks).

2.4 SYSTEM ARCHITECTURE

Architecture flow:

Below architecture diagram represents mainly flow of requests from users to database through servers. In this scenario overall system is designed in three tiers separately using three layers called presentation layer, business logic layer and data link layer. This project was developed using 3-tier architecture.



Project Requirements

Project Requirements:

4.1 FUNCTIONAL REQUIREMENTS SPECIFICATION

This application consists following modules.

1. **Admin Module**
2. **User Module**

Admin Module:

Admin who is responsible for adding machines to the existing company to maintain the resources with efficient usage of all its environment. Admin also responsible for adding or deleting the verified users.

User Module:

Users who need the resources to maintain the private data in the cloud are able to use the cloud data efficiently and effectively. They can use resources with specified limited constraints.

Machine Module:

Machines allow the users to access their resources fully efficiently with some constraints.

4.2 PERFORMANCE REQUIREMENTS

Performance is measured in terms of the output provided by the application. Requirement specification plays an important part in the analysis of a system. Only when the requirement specifications are properly given, it is possible to design a system, which will fit into required environment. It rests largely with the users of the existing system to give the requirement specifications because they are the people who finally use the system

The requirement specification for any system can be broadly stated as given below:

- The system should be able to interface with the existing system
- The system should be accurate
- The system should be better than the existing system

The existing system is completely dependent on the user to perform all the duties.

4.3 SOFTWARE REQUIREMENTS:

Operating System	: Windows
Technology	: Java and J2EE
Web Technologies	: Html, JavaScript, CSS
IDE	: NetBeans
Web Server	: Tomcat
Database	: MySQL Query Browser
Java Version	: J2SDK1.5

4.4 HARDWARE REQUIREMENTS:

Hardware	: Intel
RAM	: 1GB

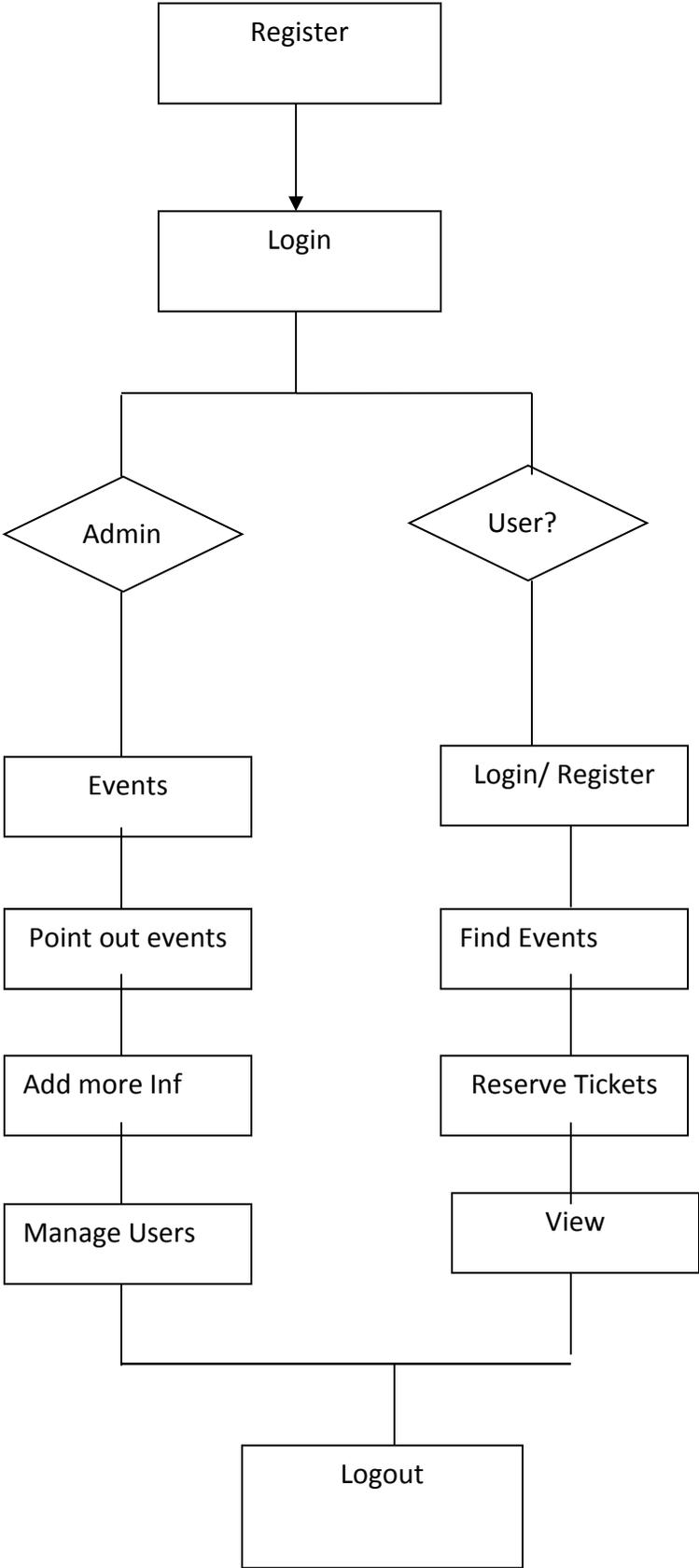
Additional Tools:

HTML Designing	: Dream weaver Tool
Development Tool kit	:My Eclipse

Project Design Description:

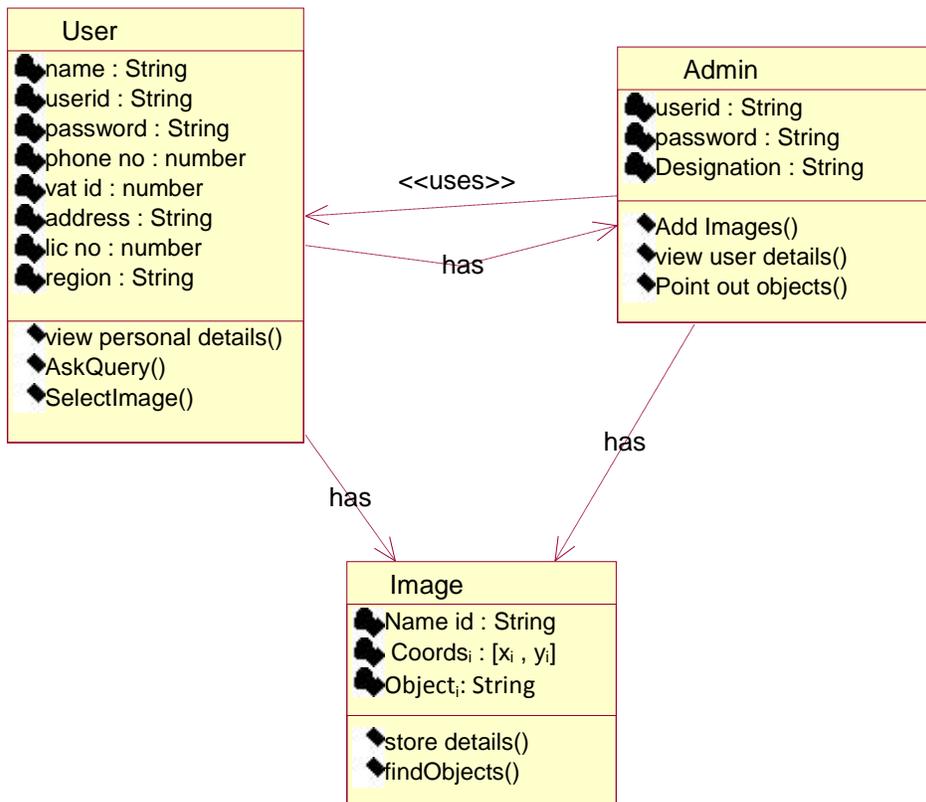
Systems design is the process or art of defining the architecture, components, modules, interfaces, and data for a system to satisfy specified requirements. One could see it as the application of systems theory to product development. There is some overlap and synergy with the disciplines of systems analysis, systems architecture and systems engineering.

Figure 1: Data Flow Diagram

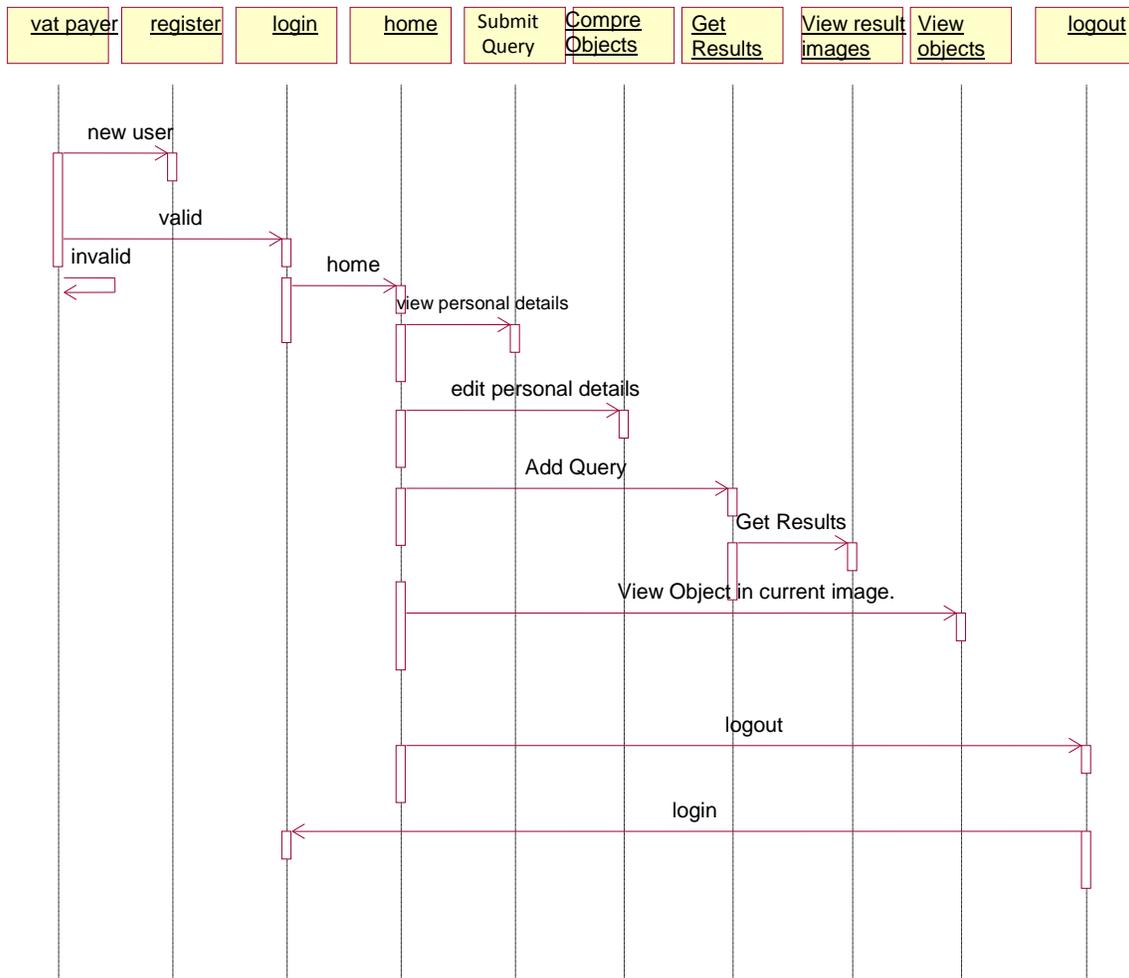


Project Design and Description

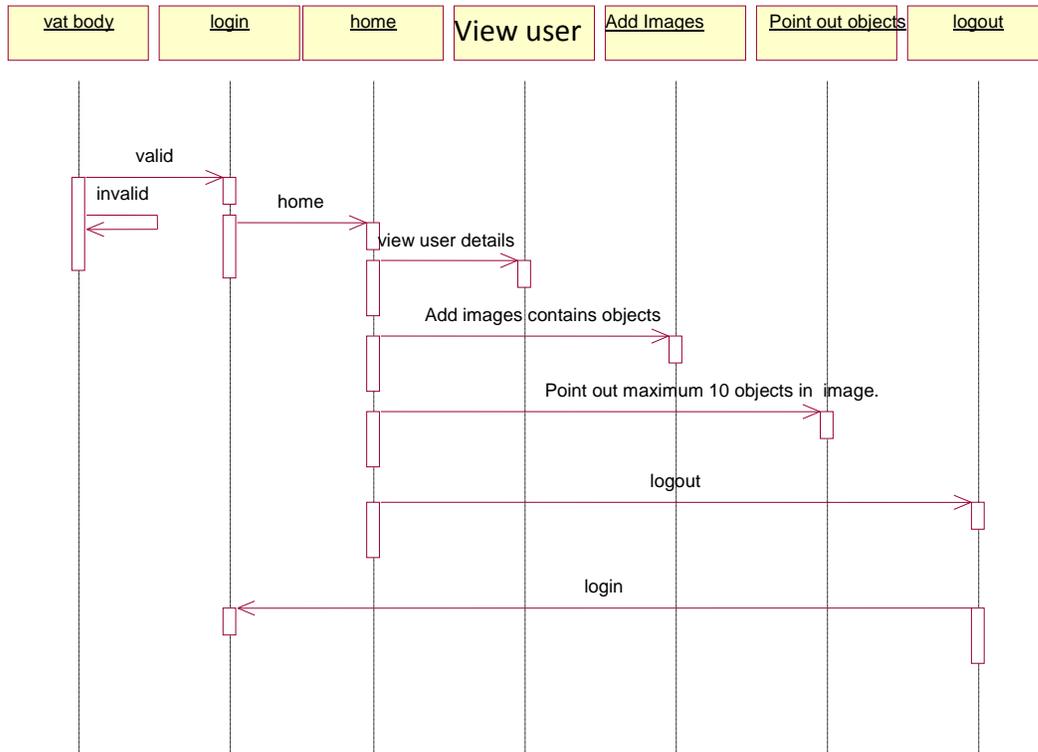
CLASS -DIAGRAM



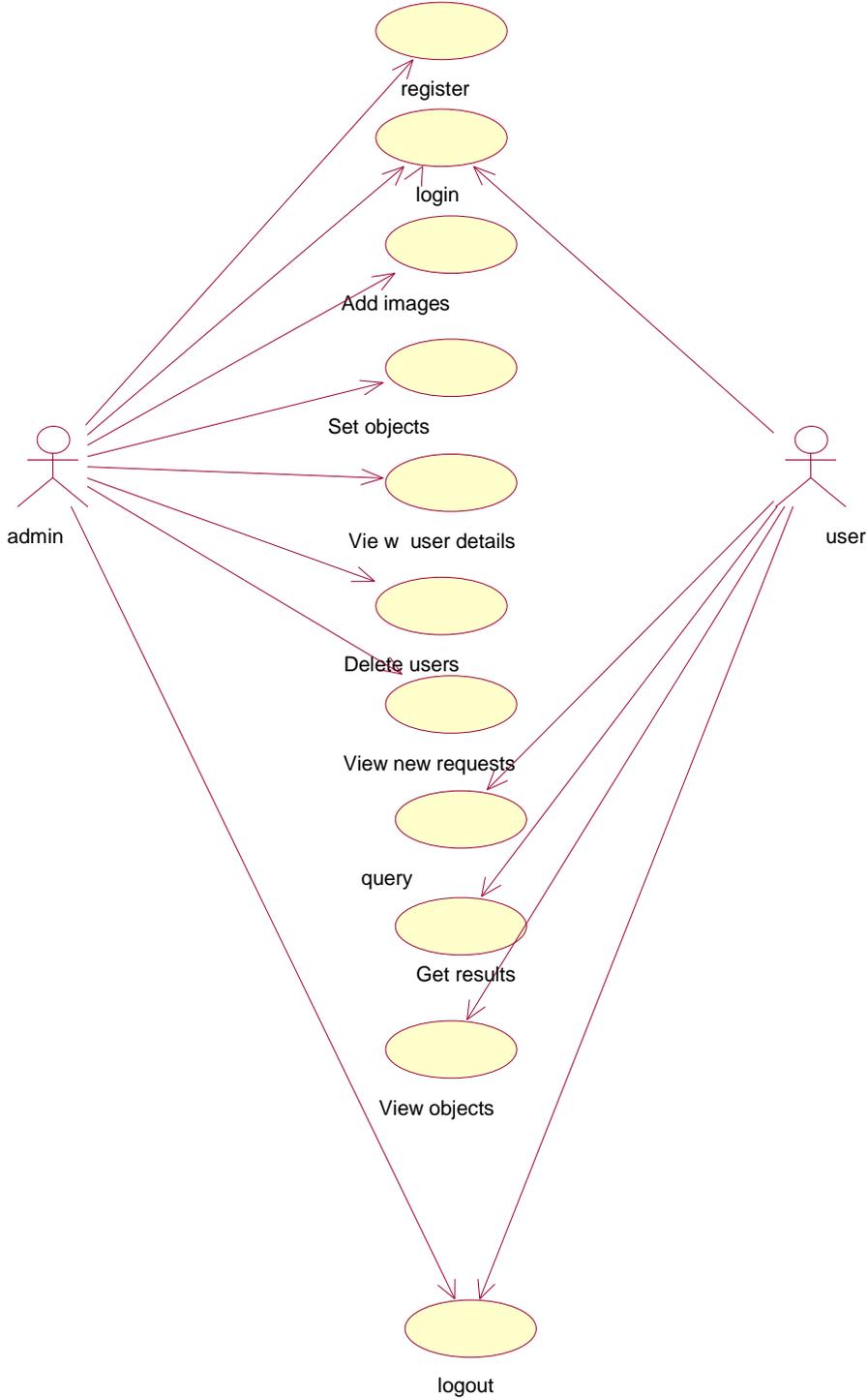
SEQUENCE DIAGRAM FOR USER:



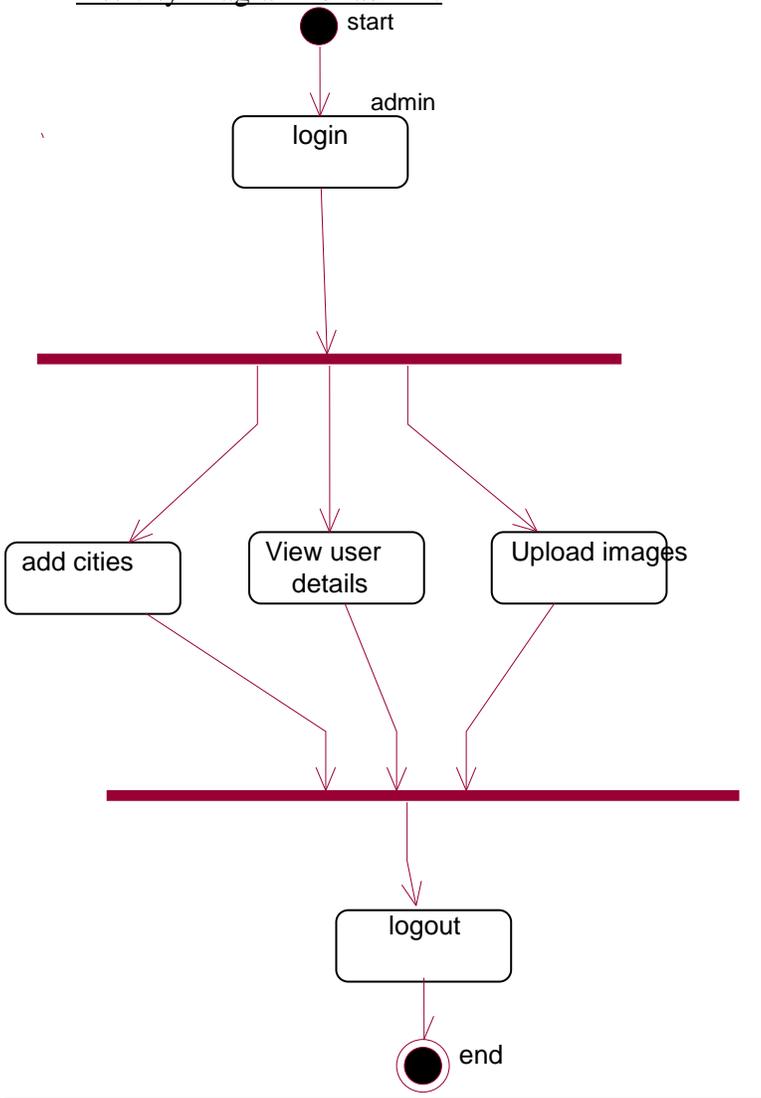
Sequence diagram admin:



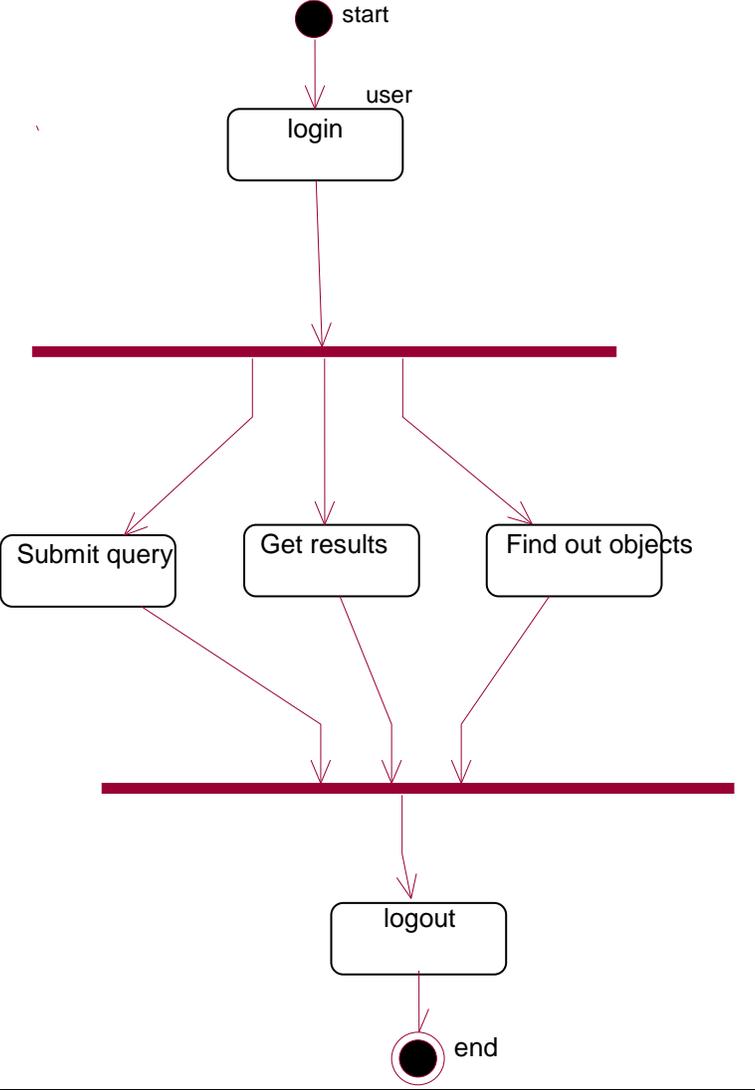
Use case Diagram:



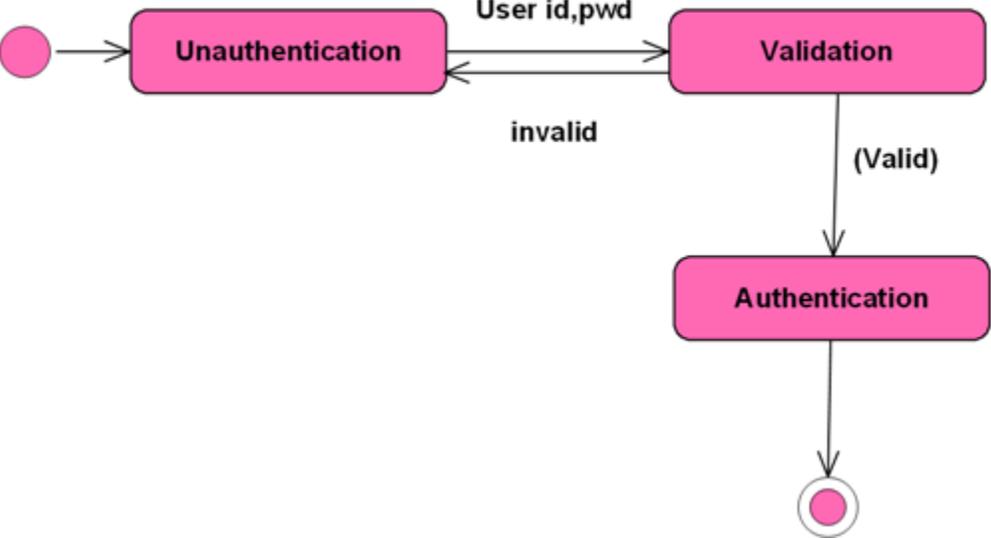
Activity Diagram for admin:



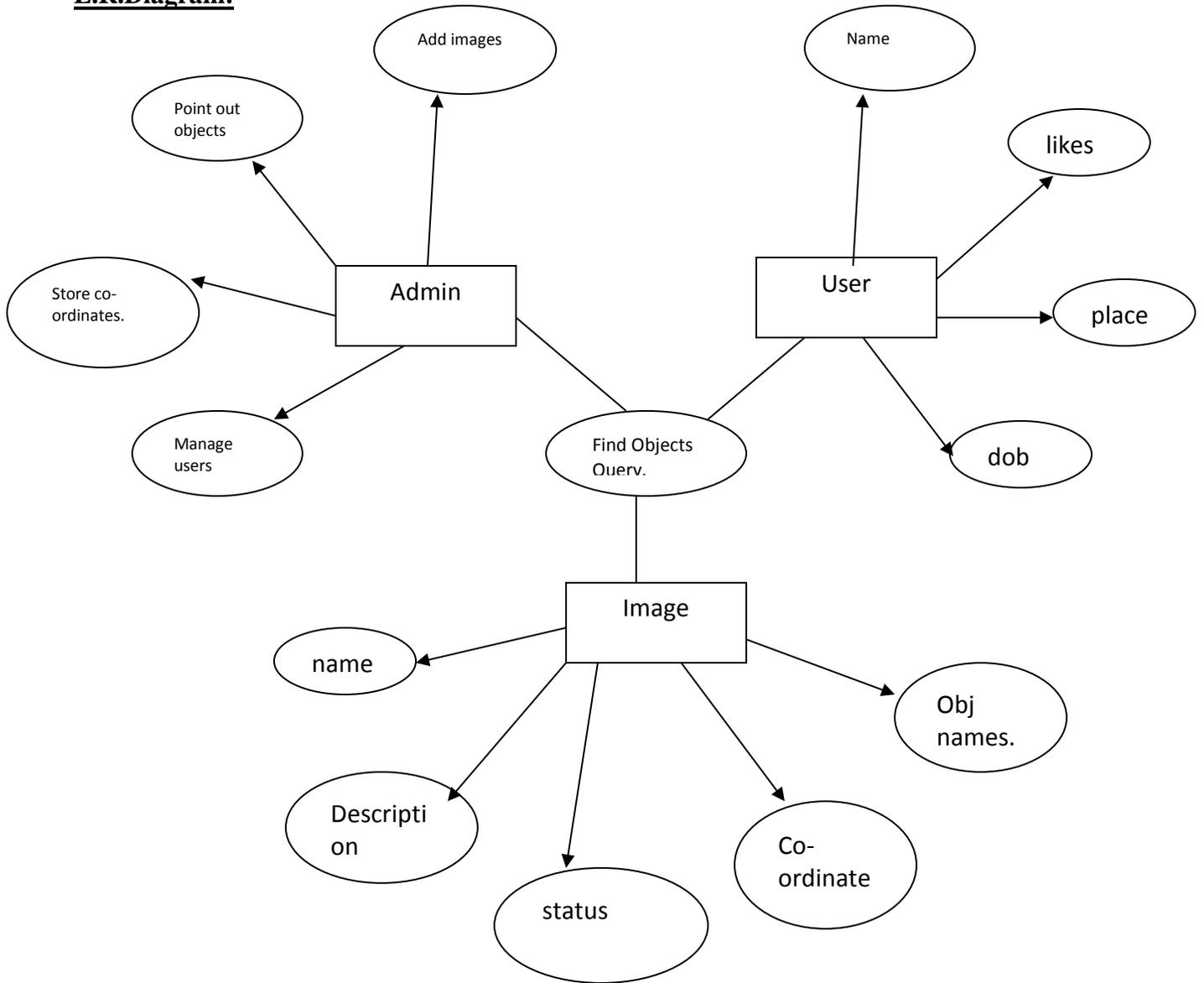
Activity Diagram for Users:



State Diagram for Payer/auditor/officer:



E.R.Diagram:



Project Internal Impact Specification

NORMALIZATION

A Database is a collection of interrelated data stored with a minimum of redundancy to serve many applications. The database design is used to group data into a number of tables and minimizes the artificiality embedded in using separate files. The tables are organized to:

- Reduced duplication of data.
- Simplify functions like adding, deleting, modifying data etc.
- Retrieving data
- Clarity and ease of use
- More information at low cost

Normalization

Normalization is built around the concept of normal forms. A relation is said to be in a particular normal form if it satisfies a certain specified set of constraints on the kind of functional dependencies that could be associated with the relation. The normal forms are used to ensure that various types of anomalies and inconsistencies are not introduced into the database.

First Normal Form:

A relation R is in first normal form if and only if all underlying domains contained atomic values only.

Second Normal Form:

A relation R is said to be in second normal form if and only if it is in first normal form and every non-key attribute is fully dependent on the primary key.

Third Normal Form:

A relation R is said to be in third normal form if and only if it is in second normal form and every non key attribute is non transitively depend on the primary key.

DATA DICTIONARY

User_reg table:

Column	Type	Null	Default	Comments
Id	int(10)	No		Primary key
username	varchar(45)	No		
name	varchar(45)	No		
password	varchar(45)	No		
mail	varchar(45)	No		
phoneno	varchar(45)	No		
ustatus	varchar(45)	No		
likes	varchar(45)	No		
location	varchar(45)	No		

image

Column	Type	Null	Default	Comments
Id	int(11)	No		Primary key
name	varchar(150)	Yes	<i>NULL</i>	
File	longblob	Yes	<i>NULL</i>	
objects	longtext	Yes	<i>NULL</i>	
status	varchar(100)	Yes	<i>NULL</i>	

Project Design & Functional Area

Functional Area:

Preliminary investigation examines project feasibility; the likelihood the system will be useful to the organization. The main objective of the feasibility study is to test the Technical, Operational and Economical feasibility for adding new modules and debugging old running system. All systems are feasible if they are given unlimited resources and infinite time. There are aspects in the feasibility study portion of the preliminary investigation:

- Technical Feasibility
- Operation Feasibility
- Economic Feasibility

TECHNICAL FEASIBILITY

The technical issue usually raised during the feasibility stage of the investigation includes the following:

- Does the necessary technology exist to do what is suggested?
- Do the proposed equipments have the technical capacity to hold the data required to use the new system?
- Will the proposed system provide adequate response to inquiries, regardless of the number or location of users?
- Can the system be upgraded if developed?

Are there technical guarantees of accuracy, reliability, ease of access and data security?

OPERATIONAL FEASIBILITY

Customer will use the forms for their various transactions i.e. for adding new routes, viewing the routes details. Also the Customer wants the reports to view the various transactions based on the constraints. These forms and reports are generated as user-friendly to the Client.

ECONOMIC FEASIBILITY

The computerized system takes care of the present existing system's data flow and procedures completely and should generate all the reports of the manual system besides a host of other management reports.

It should be built as a web based application with separate web server and database server. This is required as the activities are spread through out the organization customer wants a centralized database. Further some of the linked transactions take place in different locations.

Open source software like TOMCAT, JAVA, Mysql and Linux is used to minimize the cost for the Customer.

INPUT & OUTPUT REPRESENTATION

Input design is a part of overall system design. The main objective during the input design is as given below:

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

INPUT STAGES:

The main input stages can be listed as below:

- Data recording
- Data transcription
- Data conversion
- Data verification
- Data control
- Data transmission
- Data validation
- Data correction

INPUT TYPES:

It is necessary to determine the various types of inputs. Inputs can be categorized as follows:

- External inputs, which are prime inputs for the system.
- Internal inputs, which are user communications with the system.
- Operational, which are computer department's communications to the system?
- Interactive, which are inputs entered during a dialogue.

INPUT

OUTPUT DESIGN:

In general are:

- External Outputs whose destination is outside the organization.
- Internal Outputs whose destination is within organization and they are the User's main interface with the computer. Outputs from computer systems are required primarily to communicate the results of processing to users. They are also used to provide a permanent copy of the results for later consultation. The various types of outputs
- Operational outputs whose use is purely within the computer department.
- Interface outputs, which involve the user in communicating directly with the system.

OUTPUT DEFINITION

The outputs should be defined in terms of the following points:

- Type of the output
- Content of the output
- Format of the output
- Location of the output
- Frequency of the output
- Volume of the output
- Sequence of the output

It is not always desirable to print or display data as it is held on a computer. It should be decided as which form of the output is the most suitable.

For Example

- Will decimal points need to be inserted

- Should leading zeros be suppressed.

OUTPUT MEDIA:

In the next stage it is to be decided that which medium is the most appropriate for the output. The main considerations when deciding about the output media are:

- The suitability for the device to the particular application.
- The need for a hard copy.
- The response time required.
- The location of the users
- The software and hardware available.

Keeping in view the above description the project is to have outputs mainly coming under the category of internal outputs. The main outputs desired according to the requirement specification are:

The outputs were needed to be generated as a hard copy and as well as queries to be viewed on the screen. Keeping in view these outputs, the format for the output is taken from the outputs, which are currently being obtained after manual processing. The standard printer is to be used as output media for hard copies.

Acknowledgement:

“Task successful” makes everyone happy. But the happiness will be gold without glitter if we didn't state the persons who have supported us to make it a success.

Success will be crowned to people who made it a reality but the people whose constant guidance and encouragement made it possible will be crowned first on the eve of success.

This acknowledgement transcends the reality of formality when we would like to express deep gratitude and respect to all those people behind the screen who guided, inspired and helped me for the completion of our project work.

I consider myself lucky enough to get such a good project. This project would add as an asset to my academic profile.

I would like to express my thankfulness to my project guide, **Prof. Do Young Park** for his constant motivation and valuable help through the project work, and I express my gratitude to **Dr. Steve Shih**, Division Chair, Computer Science Department, Governors State University, for his constant supervision, guidance and co-operation throughout the project. I also extend my thanks to my Team Members for their co-operation during my course.

Finally, I would like to thank my friends for their co-operation to complete this project.

Bhupesh Chowdary Gude
S.id: 1159544

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<https://www.google.com/earth/>

Appendices

Table 51: Recovery Manager Portal events

Event ID	Event type	Description
9000	Information	The %9 object was restored to % 10. Initiated by % 1.
9001	Error	The %9 object was not restored to % 10. Reason: %4. Initiated by % 1.
9002	Information	The batch restore operation was started. Number of objects: %7. Backup date: %13. RMAD console: %5. Domain controller: %6. Attributes to restore: %21. Initiated by % 1.
9003	Information	The batch restore operation was successfully finished. Number of restored objects: %7. Initiated by % 1
9004	Error	The batch restore operation failed. Initiated by % 1.
9005	Warning	The batch restore operation partially completed. %8 out of %7 objects were successfully restored. Initiated by % 1.
9006	Information	The %9 object was successfully undeleted. Initiated by % 1.
9007	Error	The %9 object undelete operation failed. Reason: %4. Initiated by % 1.
9008	Information	The batch undelete operation was started. Number of objects: %7. RMAD console: %5. Domain controller: %6.

Event ID	Event type	Description
		Initiated by %1.
9009	Information	The batch undelete operation was finished. Number of undeleted objects: %7. Initiated by %1.
9010	Error	The batch undelete operation failed. Initiated by %1.
9011	Warning	The batch undelete operation was partially completed.%8 out of %7 objects were successfully undeleted. Initiated by %1.
9012	Information	The search operation was started. Search string: %14. Initiated by %1.
9013	Information	The search operation was finished. Search string: %14. Number of found objects: %7.
9014	Error	The search operation was failed. Search string: %14. Reason: %4.
9015	Information	The search operation was cancelled. Search string: %14.
9016	Information	Delegation setting for %20 was changed. Resource: %19. Operation: %18. Access: %73. Initiated by %1.
9017	Information	Delegation setting for %20 was deleted. Resource: %19. Operation: %18. Initiated by %1.
9018	Information	Recovery Portal configuration was changed. Server: %74.

Event ID	Event type	Description
-----------------	-------------------	--------------------

		Administrator: %66. Operation: %18. Initiated by %1.
--	--	--
