

JSS COLLEGE OF ARTS, COMMERCE & SCIENCE

An Autonomous college Affiliated to university of Mysore
Re-Accredited By NACC with 'A' Grade,

Ooty Road, Mysuru-570025



A PROJECT REPORT ON “E RESOURCES MANAGEMENT SYSTEM”

Submitted for partial fulfilment for the award of the
degree of

BACHELORS IN COMPUTER APPLICATIONS

Submitted By

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Under the Guidance of

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CERTIFICATE

This is to certify that **SHASHANK H.N**, bearing Register Number **JUA19064** has successfully completed the dissertation work entitled "**E RESOURCES MANAGEMENT SYSTEMS**" and submitted the report in partial fulfilment of the award of **VI Semester Bachelors in Computer Applications by JSS college of Arts, Commerce and Science Mysore**, during the academic year **2022**. The work has been approved as it satisfies the Academic requirement in respect of dissertation work prescribed for the VI semester BCA.

Signature of the Guide

Signature of HOD

Date of examination

VALUED

Name and Signature of examiner

DECLARATION

I, **SHASHANK H N**, hereby declare that this term work entitled “**E Resources Management System**” submitted to JSS College of Arts, Commerce and Science, Ooty road Mysore (Affiliated to University of Mysore) is a record of original work done by me under the supervision and guidance of **Dr Rajesh**, Assistant Professor Department of Computer Science.

Candidate Name : SHASHANK H N
Register Number : JUA19064

Signature of the Student:

Place : Mysore

Date:

ACKNOWLEDGEMENT

I would like to express high regard to our college **JSS COLLEGE OF ARTS, COMMERCE AND SCIENCE, MYSORE** for grooming us all these years. The support given by respected principal **Prof. Vijayendra Kumar M P** is highly memorable.

Our sincere thanks to **Mr. VIDYASHANKAR SIR**, head of the department, Dept of Computer Science, JSS College, Mysore for her valuable support during the project.

We wish to express deep sense of gratitude and affection to our internal guide **Dr Rajesh K M**, Assistant Professor, Department of Computer Science, JSS College, Mysore for his encouragement as well as supervision till the completion of our project.

Finally, we are deeply grateful to faculty members of CS Department for their Guidance and direction.

(SHASHANK H N)

ABSTRACT

“E RESOURCES MANAGEMENT SYSTEM” this application is designed from day to day working of department of a college. The project provides online platform to accomplish day to day department level task and provide information of the task to specified user. Staff can assign task, give notification and adds different users in this project. Important benefit of this proposed system is that the user-friendly design helps the staff and students to interact and accomplish various types of tasks and meeting online with ease. The E Resources Management System involves identifying, acquiring, allocating and tracking all the resources. Admin maintains a database system and is responsible for the performance of the system. Admin have authority to control the entire system. User have no authentication to see admin task. The purpose for developing this project is to generate a platform where admin can do all types of operations like view, insert, edit, events, delete and tracking operations. Admin user is a privileged user who can add/modify a user details.

E RESOURCES MANAGEMENT **SYSTEM**

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“E RESOURCES MANAGEMENT SYSTEM”

CHAPTER-1

INTRODUCTION

1.1 Introduction

The E Resources Management System is used to automate the process of admin and user management. The work is under observation of the higher authorities. E Resources Management System were designed to help to students and teachers. The project provides online platform to accomplish to upload the notes and assign online classes in a college department. The proposed website will help the student and teacher to communicate with each other. The system easily assigns tasks so as to avoid all the time-consuming and unnecessary meetings. Teacher can periodically share all the details regarding the notes with the student. The management of assignment or task is easy from both ends. The teacher is able to assign online classes with the students through this platform. The task will observe and controlled by the Head of Department. This website provides facilities to assign google meetings, upload notes, send notifications and view notification to the users. Admin maintains a database system and is responsible for the performance of the system. Admin have authority to control the entire system. The purpose for developing this project is to generate a platform where Head of Department can do operations like assign, add users and view operations. ADMIN, Head of Department and privileged who can add/modify users. E Resources management System as it enables users to organize and prioritize projects efficiently and with flexibility.

1.2 Scope and Objective

To produce a web-based application that would be able to keep track records of each progress of research, meeting discussion of supervisor and student research. Also, the system would be able to provide a progress report of each student to their supervisor. Our team is producing an application which would able to keep track records of each progress of research student and able

to provide a progress report of each student to their supervisor. The system, E Resources Management System provides a platform for research progression management to achieve a centralized progression tracking. The supervisor and the student could have an identical visual on research milestones and allowed to have the progress updated from time to time.

1.3 Modules

Admin

- Admin need to login to the website by entering User id and password
- Admin can create new users like add new user and delete user details i.e Staff
- Admin can view the task which is updated by Staff
- Admin can manage the application

Staff

- Staff can add new notes and tutorials video for students
- View the notes and tutorials video which is updated by users
- Staff can also send the meeting link for the student group
- Staff can hire the feedback from students

Student

- Student can view the notes and tutorials video uploaded by staff
- Student can also request for the notes
- View online classes details which are uploaded by staff

Admin

1. Admin can login to this website
2. Manage user profile and client profile
3. admin can view over all summary report

General Constraints

- User must have the knowledge of website working process.
- Internet must be necessary for this website.
- Multiple users can login.
- The website is available on all the device. It is compatible with all browser and mobile.

Assumption and Dependencies

- User can use this website in any browser or mobile there is no restriction but he should have internet facility
- User must have the knowledge of English
- We assume that the system must be user friendly and self-explanatory

CHAPTER-2

LITERATURE SURVEY

2.1 Literature Survey Purposes

A Case Study of an Online Assignment Submission at UOMV. Ramnarain-Seetohul, J.Abdool Karim, A.Amir”- This paper explains that how the assignments given to the students can be managed online. This system also shows the graph of the feedback given to that system that how friendly it proved by the students as well as the teachers [1]. “Project Communication in Functions, Process and Project oriented Industrial Companies- Jana Samakova, Kristina Koltnerova, Rudolf Rybansky”- This article is focused on the project communication management. This article describes that how much the communication in project is essential. It also describes that the process-oriented and project-oriented companies have better project communication management during the project life cycle. “Project management theory and the management of research projects”- This paper discusses about the research done on the previous projects and the interpersonal dynamics of a research team. This article gave us the idea about maintaining all of the previous year projects in one single page so that there will be no conflicts in choosing the project topics. “Web Based Student Information Management SystemS.R. Bharamagoudar, Geeta R.B., S.G.Totad”- This article describes that how the maintenance of the record of the students information can be done easily at one place. Thus, it gave us the idea about maintaining all of the project related tasks at one single page. Also, it talks about maintaining the progress report of the students based on their work performance. “A Multi-Objective Approach for the Project Allocation Problem”- The article describes that the system performs allocation of the project as well as allows academics to rate the projects. The system captures the preferences of examiners as well as students and allocates projects to them in order to maximize the number of students who gets their first choice in their preference list. “An Evaluation of On-Line Assignment Submission, marking and Return”-The article describes about the online submission of assignments, marking and return. This article also reports on a formal evaluation to assess student perceptions of this new development.

Implementation of Student Project Analysis and Management Animesh

Tayal¹ , Ruchi Pahire² , Sneha Suryawanshi³ , Shreyash Chawhan⁴

Colleges, Universities or any Educational Institutes conduct projects for the better understanding of the practical approach towards the subject in the real world. And the project involves a lot of tasks like abstract or synopsis evaluation, thesis correction and updating the proposed module with your guides. Previously project tasks are done with no synchronization and in the traditional manner which consumes a lot of time and efforts. And also, the data related to project has no place to store at one place. Also, project tasks consist of Group formation, Project topic allotment, Guide allotment, Marks distribution etc. Moreover, project tasks involve mutual interaction between student and guide. There are a number of problems with traditional approaches to the submission and management of student assessment, especially in a distance education setting. Student Project Analysis and Management (SPAM) automate all of these tasks. Indeed, students are often unaware of previous year project topics and end up choosing the same topics. Hence in this system we can also review the record of previous year project topics. It will help the students as well as their guides to evaluate the report of the projects from anywhere, anytime. This system will help the students to upload the documentation related to the project task so that one uploads it from anywhere. Also, the students as well as guides will be notified about each and every task which is being assigned. Thus, this will help to maintain the complete record of the project documentation in an organized platform. Thus, this Student Project Analysis and Management System will be able to cater for a wide range of requirements either for students or for professors at educational institutes.

Web design: A key factor for the website success

Web design has been identified as a key factor for the acceptance and success of the websites and electronic commerce. The purpose of this paper is to analyse, from a marketing point of view the main aspects that could influence online users' perceptions and behaviours, in order to achieve a successful e-commerce website. Design/methodology/approach – An extensive literature review was developed emphasising the special role that web design could play in the interaction user-interface. Besides, the methodology related to benchmarking allows firms to know the best practices and to learn some key lessons for developing their businesses online. Findings – The literature review affirms that web design is a key factor for getting positive outcomes as it influences on users and online consumers' perceptions and behaviours. A website design addressed

to simplicity and freedom of navigation provides clear, timely and accurate information in all its contents and an appearance that calls for the users' attention. Research limitations/implications – The paper offers a Decalogue of guidelines that could improve the design of the e-commerce websites regarding the aesthetic appearance of the website, the navigation through the site, the information and contents and the characteristics of the shopping process. It could be interesting to analyse empirically the impact of all key attributes on the users' perceptions and behaviours. Originality/value – This is one of the first studies which explains how a website must be designed from the demand's perspective. The analysis of the users' perceptions and the marketing view of design could help designers to find the website that best matches their users' needs and so, to improve the relationships between users and companies through their interfaces.

A Research Paper on Website Development Optimization Using Xampp/PHP

This research paper discussing the various useful tools and techniques that are used in a development of a website. We also discuss about the procedure follow in a website, mostly focused on a local host named Xampp tool. Next, we compare different development frameworks web application. In addition, we discuss life cycle model and framework development of web application. In this report, various review papers result also included for understanding of problems can be facing by the users. This Paper talks about the technologies used in this development, PHP and explained in result its functionality with Xampp with screenshots. It is hoped it will give a useful framework for guiding the process.

2.2 Existing System

In existing system there is no particular application to manage task details to the students and also manage the online meeting information. Staff need to use email ID and contact details to share meeting details and also manual system to assign the tasks. In existing application difficult to assign task and manage task details.

2.3 Proposed System

The application is for E Resources Management System which will be sophisticated and implemented for the ADMIN's, Student's, Teacher's and Assistant's reliability. The system will be used by four users. They are: ADMIN, Student, Teacher and Assistant. The ADMIN is only responsible for the

collecting information of the other User's data. The users can use this app in order to accomplish day to day tasks. The whole system is divided into the five modules. They are Login Module, Registration Module, Message Module, Notification Module, Task Module, Complaint Module. The E Resources Management System will enable us to make efficient to accomplish college related tasks. This application presents the design and implementation of E Resources Management System. The application provides the design of data program and the approach of allocating various tasks.

2.4 Tools and Technologies

PHP

PHP: Hypertext Pre-processor (or simply PHP) is a server-side scripting language designed for web development. It was originally created by Rasmus Lerdorf in 1994 the PHP reference implementation is now produced by The PHP Group. PHP originally stood for *Personal Home Page*, but it now stands for the recursive initialism PHP: Hypertext Pre-processor.

PHP code may be embedded into HTML code, or it can be used in combination with various web template systems, web content management systems, and web frameworks. PHP code is usually processed by a PHP interpreter implemented as a module in the web server or as a Common Gateway Interface (CGI) executable. The web server combines the results of the interpreted and executed PHP code, which may be any type of data, including images, with the generated web page. PHP code may also be executed with a command-line interface (CLI) and can be used to implement standalone graphical applications.

MySQL

MySQL is free and open-source software under the terms of the GNU General Public License, and is also available under a variety of proprietary licenses. MySQL was owned and sponsored by the Swedish company MySQL AB, which was bought by Sun Microsystems (now Oracle Corporation). In 2010, when Oracle acquired Sun, Widenius forked the open-source MySQL project to create MariaDB.

HTML:

Hypertext Markup Language (HTML) is the standard markup language for creating web pages and web applications. with Cascading Style Sheets (CSS) and JavaScript, it forms a triad of cornerstone technologies for the World Wide Web.

Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

HTML elements are the building blocks of HTML pages. With HTML constructs, images and other objects such as interactive forms may be embedded into the rendered page. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. HTML elements are delineated by *tags*, written using angle brackets.

CSS:

CSS is designed to enable the separation of presentation and content, including layout, colours, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting by specifying the relevant CSS in a separate CSS file, and reduce complexity and repetition in the structural content.

Bootstrap:

Bootstrap is a free and open-source front-end framework for developing websites and web applications. It contains HTML and CSS-based design templates for typography, forms, buttons, navigation and other interface components, as well as optional Java Script extensions. Unlike many earlier web frameworks, it concerns itself with front-end development only.

CHAPTER-3

REQUIREMENT ANALYSIS AND SPECIFICATION

3.1 Introduction

A Software Requirements Specification (SRS) is a description of a software system to be developed. It lays out functional and non-functional requirements, and may include a set of use cases that describe user interactions that the software must provide.

The software requirements specification document enlists enough and necessary requirements that are required for the project development. To derive the requirements, the developer needs to have clear and through understanding of the products to be developed or being developed. This is achieved and refined with detailed and continuous communications with the project team and customer till the completion of the software.

The introduction of the Software Requirements Specification (SRS) provides an overview of the entire SRS with purpose, scope, definitions, acronyms, abbreviations, references and overview of the SRS. The aim of this document is to gather and analyse and give an in-depth insight of the complete A E Resources Management System by defining the problem statement in detail.

Scope of SRS Document

A Software Requirements Specification (SRS) is a document that describes the nature of a project, software or application. In simple words, SRS document is a manual of a project provided it is prepared before you kick-start a project/application. This document is also known by the names SRS report, software document. A software document is primarily prepared for a project, software or any kind of application.

There are a set of guidelines to be followed while preparing the software requirement specification document. This includes the purpose, scope, functional and non-functional requirements, software and hardware requirements of the project.

External Requirements

It gives a description of the hardware, software and communication interface and provide basic prototypes of the user interface. Functional requirements are defined according to the development of the project.

3.2 Software Requirements

- Front end - HTML, CSS, Bootstrap 5.0
- Middle layer - PHP, Java Script
- Back end - MYSQL.

System Requirements

- Operating system - Windows XP – SP2 / 7 / 8.1 above.
- Browser - Internet explorer, Google chrome.

3.3 Hardware Requirements

- Processor - Dual core (2.0) GHZ or above
- RAM - 1 GB and above
- Hard disk - 20GB and above

3.4 Functional Requirements

Admin

- Admin need to login to the website by entering user id and password
- Admin can create new users like add new user and delete user details
- Admin can view the report which is updated by Staff
- Admin can manage the website

Staff

- Staff can add new online classes and Notes for students
- View the report which is updated by users
- Staff can also send the meeting link for the student group
- Staff can hire the feedback from students

Student

- Student can view the Notes, online classes details

- Student can also request for Notes
- View meeting details which are uploaded by staff

Non-Functional Requirements

Availability

This is a website and will be available for every registered user. This website is compatible with all browser and mobile. This website helps to user send different type of request to clients and view the response.

Maintainability

The project is developed using an Open source tool and is easy to maintain. The software used for the development of the website are free so there is no necessary to pay and no maintenances cost.

Security

As the systems all the data are dumped at the server side the server provides the security to the unauthorized access of data.

Reliability

Reliability is a requirement about how often the software fails. The measurement is often expressed in mean time between failures. The definition of a failure must be clear. Also, don't confuse reliability with availability which is quite a different kind of requirement. Be sure to specify the consequences of software failure, how to protect from failure, a strategy for error detection, and a strategy for correction.

Simplicity

The project is driven by a simple user interface which helps to interact easily with website and easy to remember. website builds by using bootstrap technology hence it compatible for all devices.

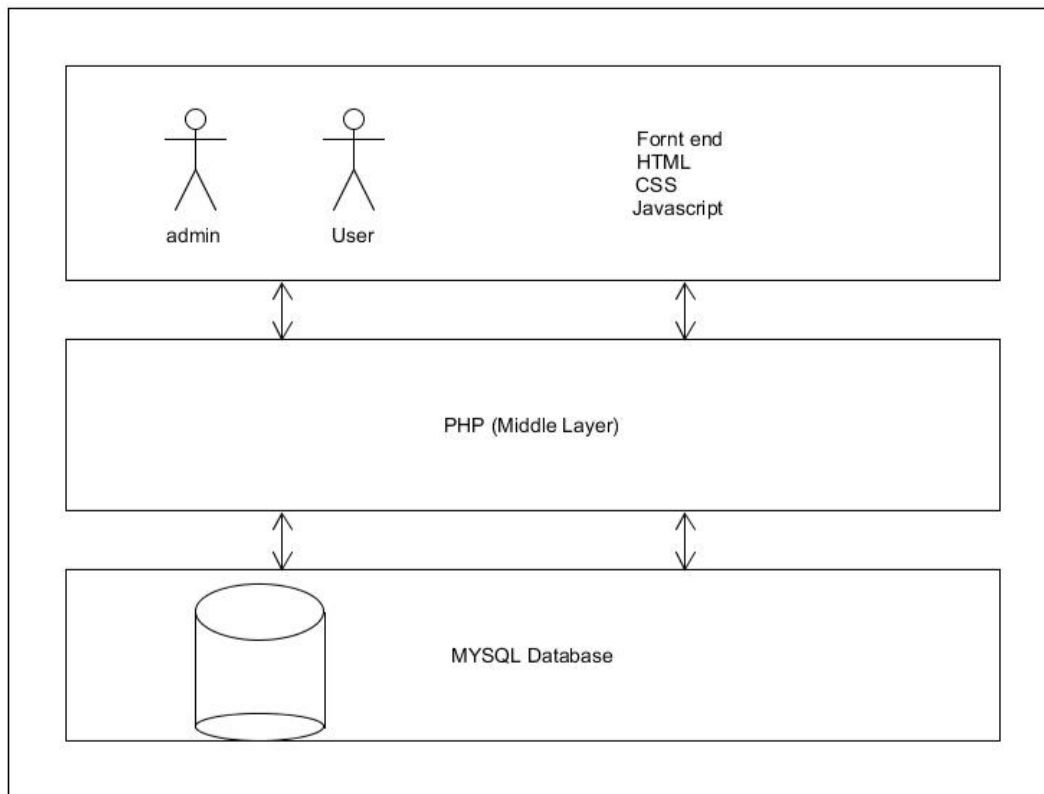
CHAPTER-4

SYSTEM ANALYSIS

4.1 System Architecture

Architecture focuses on looking at a system as a combination of many different components, and how they interact with each other to produce the desired result. It involves the process of defining a collection of hardware and software components and their interfaces to establish the framework for the development of an android application.

Architecture Diagram



4.2 Feasibility Study:

A feasibility study is an analysis used in measuring the ability and likelihood to complete a project successfully including all relevant factors.

Depending on the result of the initial investigation, the survey is expended to a more detailed feasibility study. A feasibility study is a test of system proposal according to its work ability impact on this website and effective use of resources.

Operational Feasibility:

In the website there are multiple operations are to be performed to so the website to be more effective and more reliable.

Every system is calculated based on its performance. There are many tools are used to develop the system. But every system chooses based on its performance and the operations. User always wants his system to be more effective and more responsive, so considering all the above scenarios to develop system with more effective we choose best tools for projects.

Economic Feasibility:

The main aim of this system is to cost effective. The cost to develop this website is less. Because every customer wants to make his software with less cost effective. It saves the evaluation time by to automating some of manual tasks of a paper evaluator. It is easy to use for all new users.

Motivational feasibility:

The motivational feasibility provides the effective user interface and helps the developer to motivate. There are many stakeholders of the system which helps the user to flow of the website according to they need. The stake holders provide the details to the developer in an easy understanding way.

Schedule feasibility

This website gives tremendous output with less time, i.e., this to execute this website is compatible for all devices with rich user interface hence it helps for easy to operate and took less time.

CHAPTER-5

SYSTEM DESIGN

5.1 Introduction

The Software Design Document is a document to provide documentation which will be used to aid in software development by providing the details for how the software should be built. Within the Software Design Document are narrative and graphical documentation of the software design for the project including use case models, sequence diagrams, collaboration models, object behaviour models, and other supporting requirement information.

Purpose

The purpose of Software Design Specification (SDS) document is to specify high level view of the architecture of our system, and on the interaction between the user and the system. And another purpose is on detailing a low-level view of each component of the software and how the components interact with each other.

This document's purpose is to provide a high-level design framework around which to build our project A responsive application for online meeting application. It also provides a list of requirements against which to test the final project and determine whether we were able to successfully implement the system according to design.

Scope

The system Design (SD) describes how the functional and non-functional requirements gathered in the requirement phase, preliminary user-oriented functional design transform into more technical system specifications from which the system is built. This phase describes the design goals and considerations, provides a high-level overview of the system architecture, and describes the data design associated with the human-machine interface and operational scenarios.

Overview

The system design documents and tracks the necessary information required to effectively define architecture and design of learning management Application system in order to give the development team guidance on the architecture of the system to be developed. Design documents

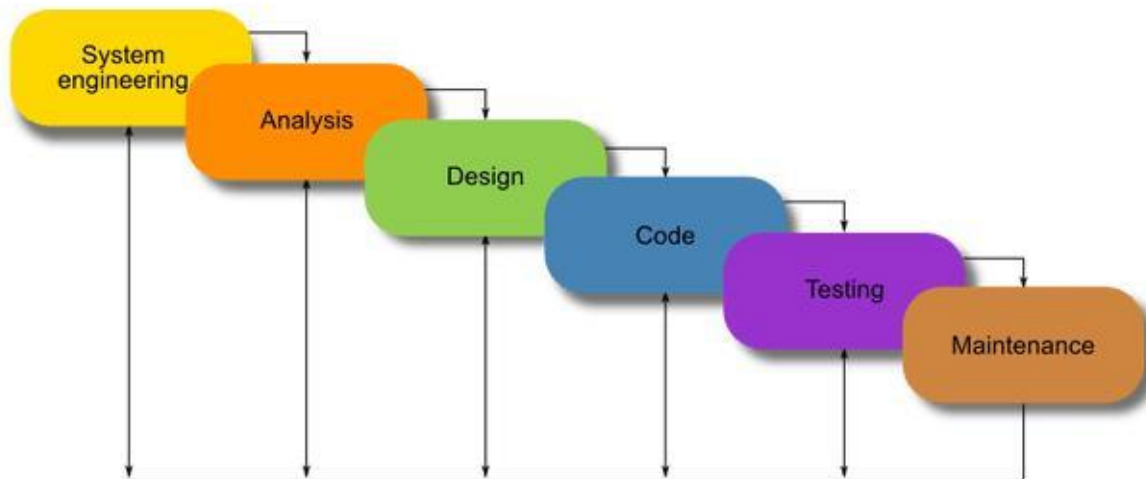
are incrementally and iteratively produced during the system development life cycle, based on the particular circumstances of the online meeting and task management.

5.2 Software Engineering Model Used

Waterfall Model

Waterfall model is the earliest SDLC approach that was used for software development. It is also referred to as a linear-sequential life cycle model. It is very simple to understand and use. In a waterfall model, each phase must be completed before the next phase can begin and there is no overlapping in phases.

Following is a diagrammatic representation of distinct phases of waterfall model.



Waterfall Model

In “The Waterfall” approach, the full process of software development is divided into separate phases. In Waterfall model, typically, the outcomes of one phase act as the input for the next phase sequentially. The sequential phases in Waterfall model are:

- **Requirement Gathering and analysis**

All possible requirements of the system to be developed are captured in this phase and documented in a requirement specification document.

- **System design**

The requirement specifications from first phase are studied in this phase and system design is prepared. Design helps in specifying hardware and system requirements and also helps in defining overall system architecture.

- **Implementation**

With inputs from system design, the system is first developed in small programs called units, which are integrated in the next phase. Each unit is developed and tested for its functionality which is referred to as Unit Testing.

- **Integration and Testing**

All the units developed in the implementation phase are integrated into a system after testing of each unit. Post integration the entire system is tested for any faults and failures.

5.3 Detailed Design of Dataflow Diagram

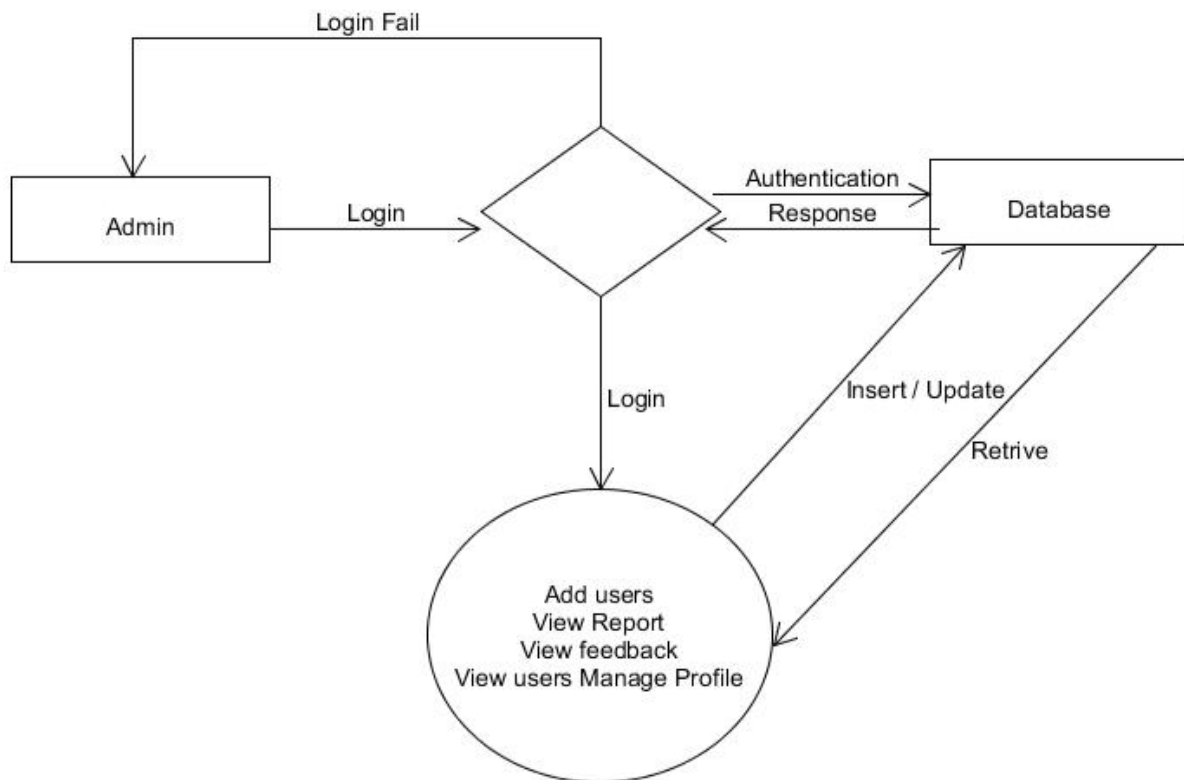
When it comes to conveying how information data flows through systems (and how that data is transformed in the process), data flow diagrams (DFDs) are the method of choice over technical descriptions for three principal reasons.

- DFDs are easier to understand by technical and nontechnical audiences
- DFDs can provide a high-level system overview, complete with boundaries and connections to other systems
- DFDs can provide a detailed representation of system components

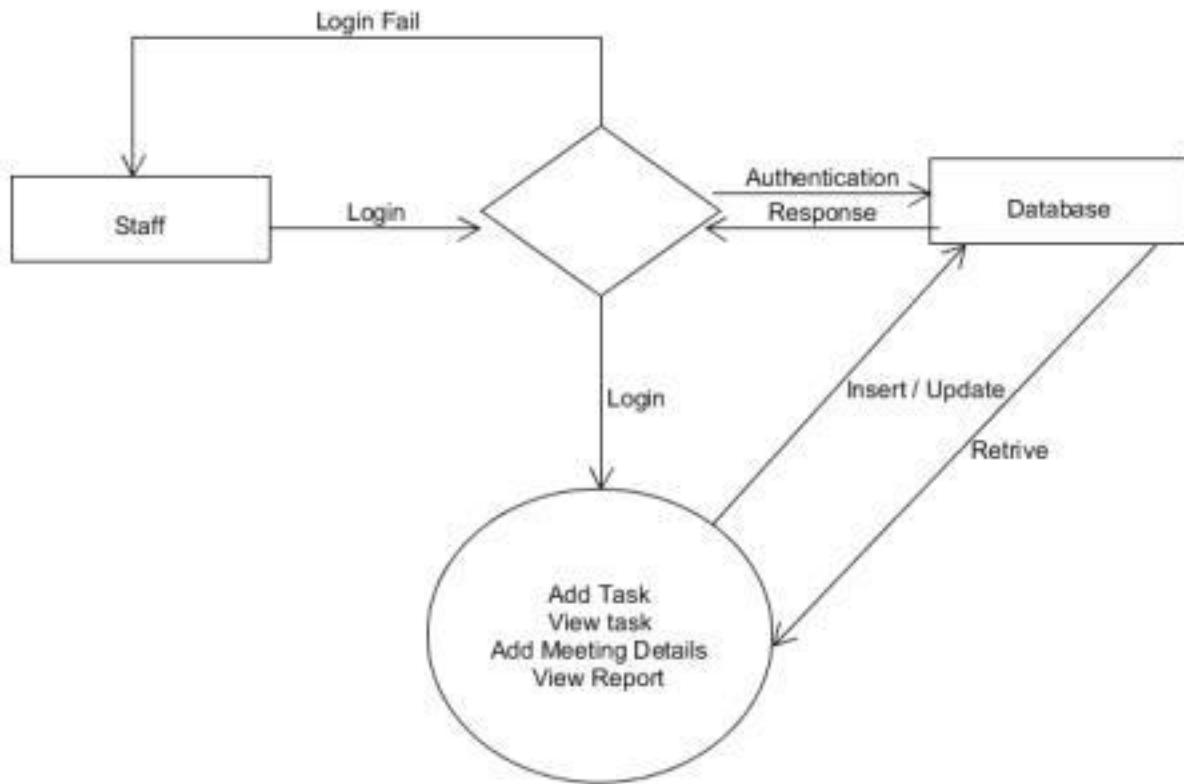
DFDs help system designers and others during initial analysis stages visualize a current system or one that may be necessary to meet new requirements. Systems analysts prefer working with DFDs, particularly when they require a clear understanding of the boundary between existing systems and postulated systems. DFDs represent the following:

- External devices sending and receiving data.

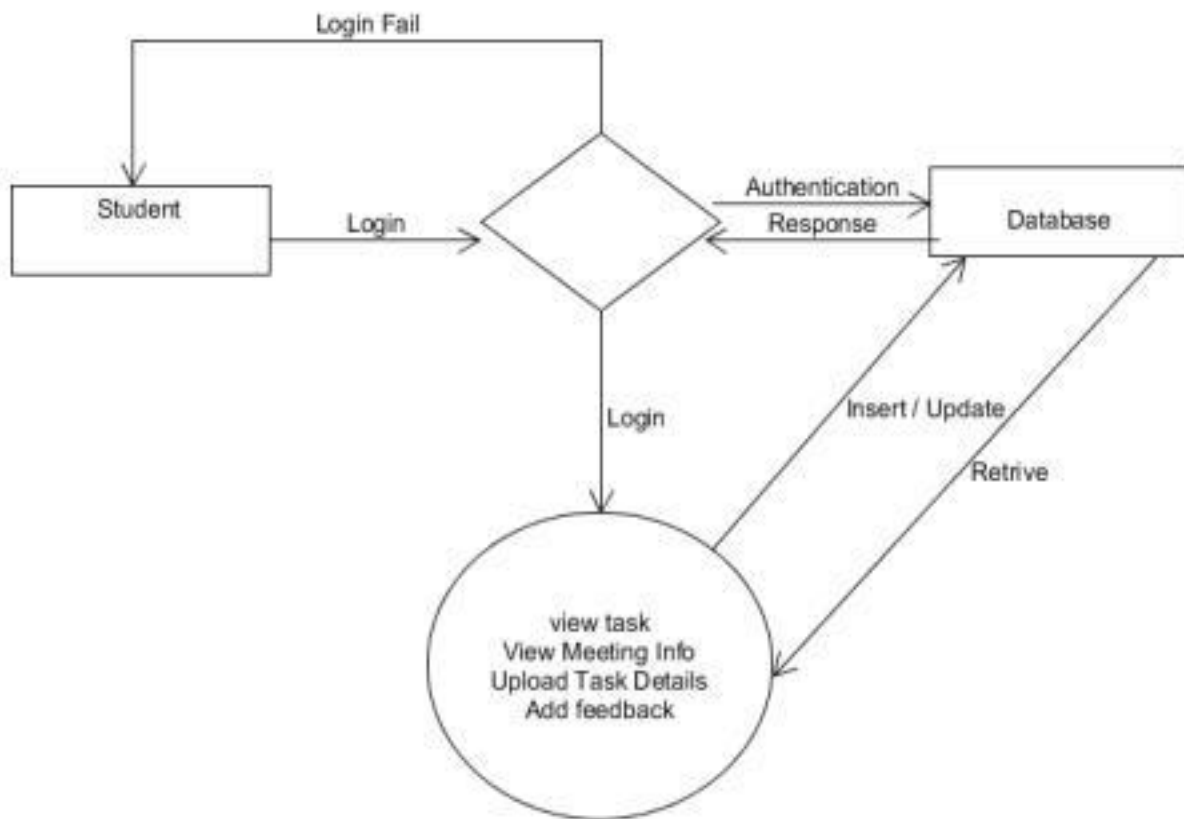
Admin Data flow diagram



Staff Dataflow Diagram



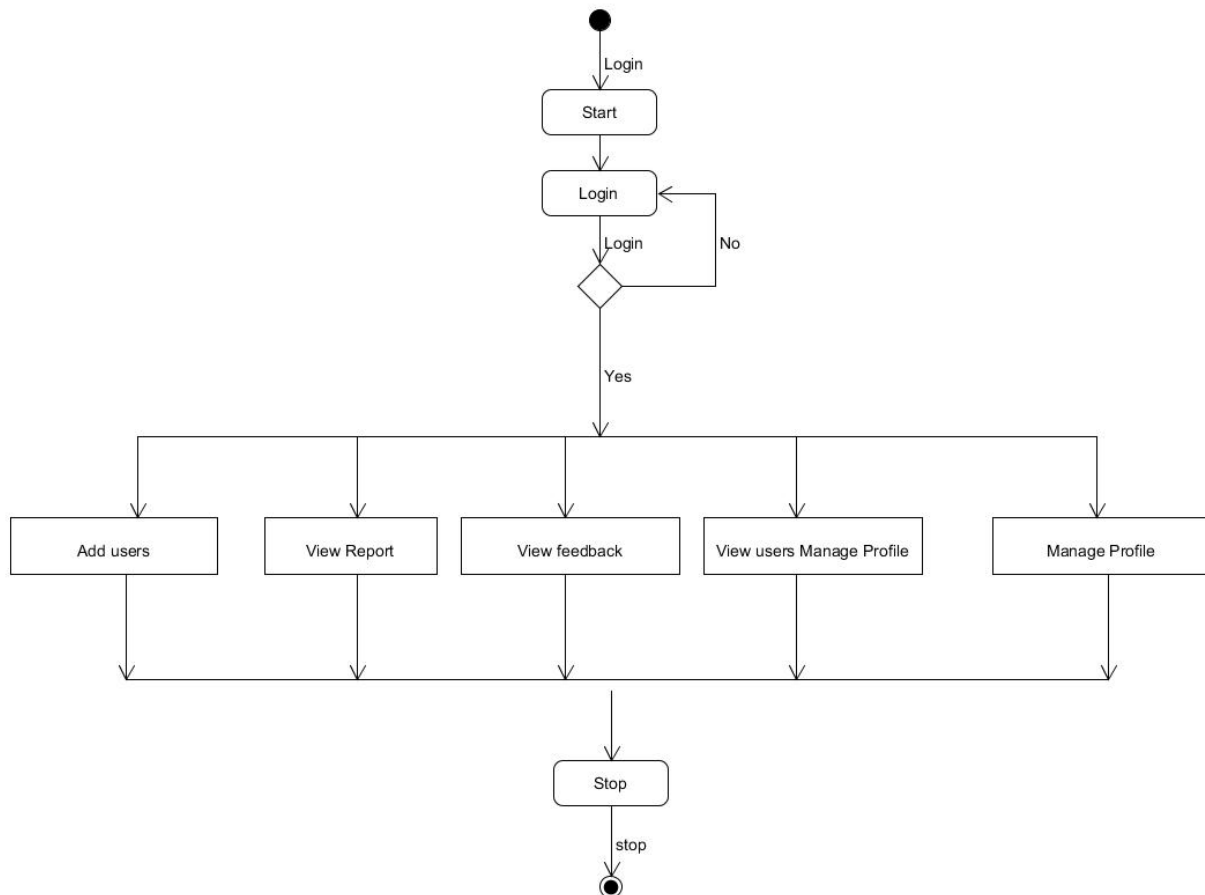
Student Dataflow diagram



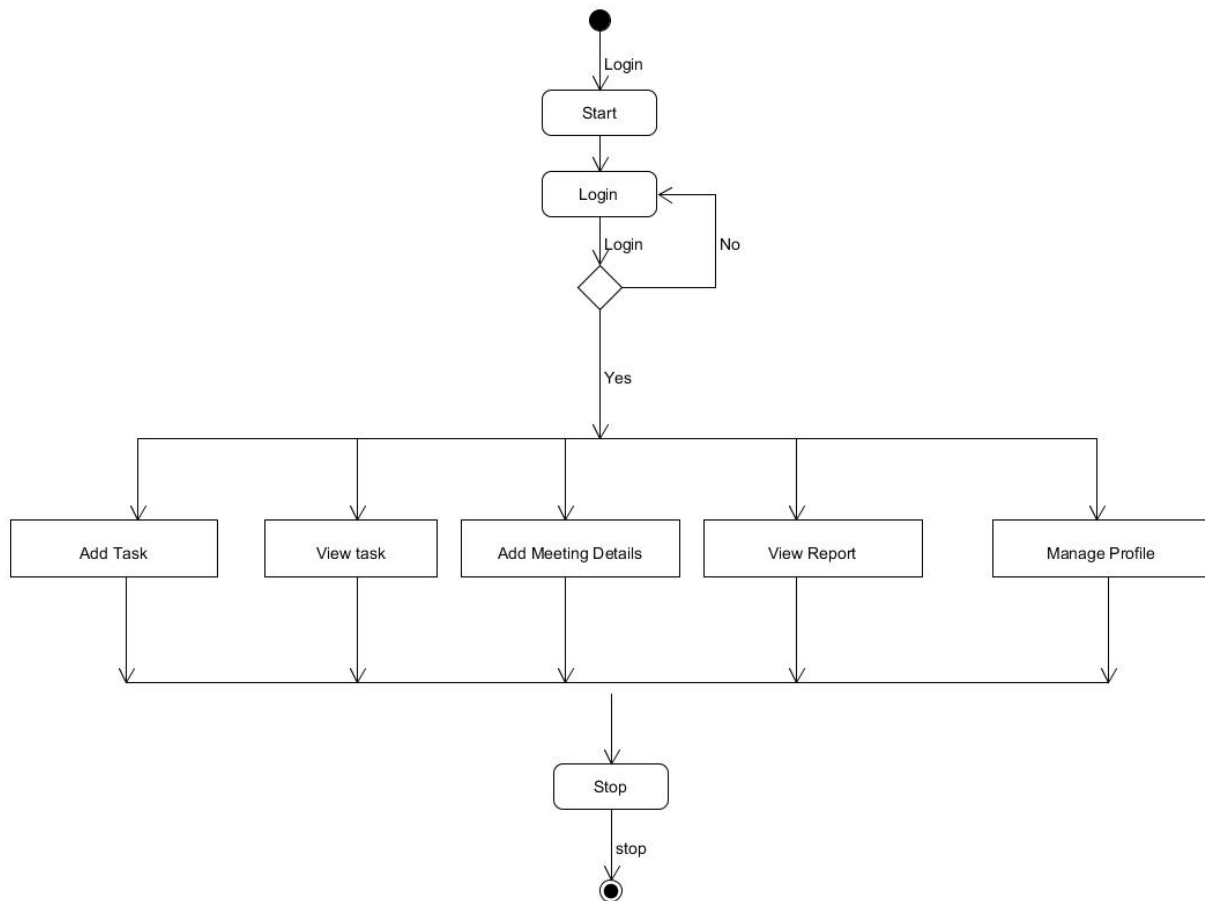
5.4 Activity Diagram

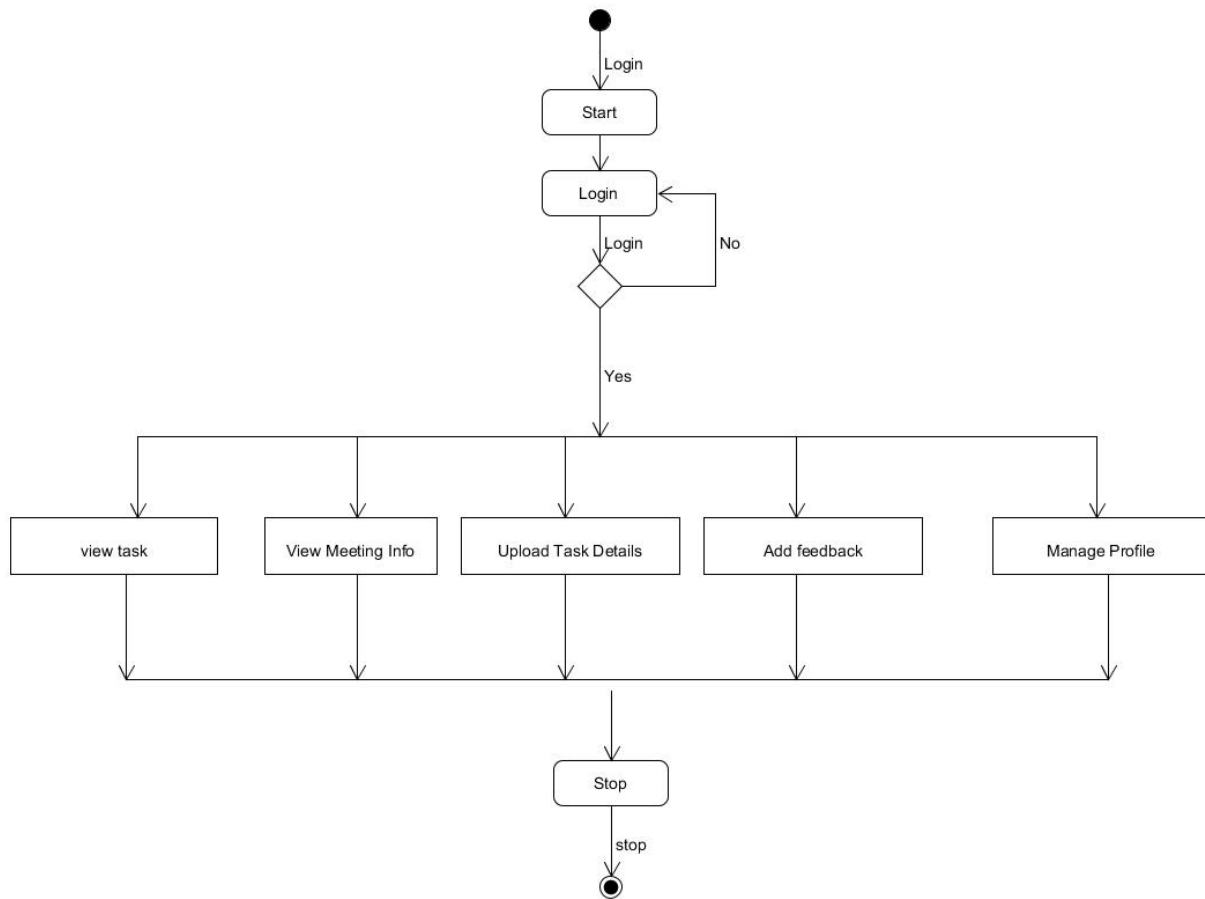
- Activity diagram is basically a flowchart to represent the flow from one activity to another activity. The activity can be described as an operation of the system.
- Activity diagram for our application shown below, when the activity starts the user should login to the application allows the user to the next activity by entering correct username and password.

Admin activity diagram



Staff activity diagram





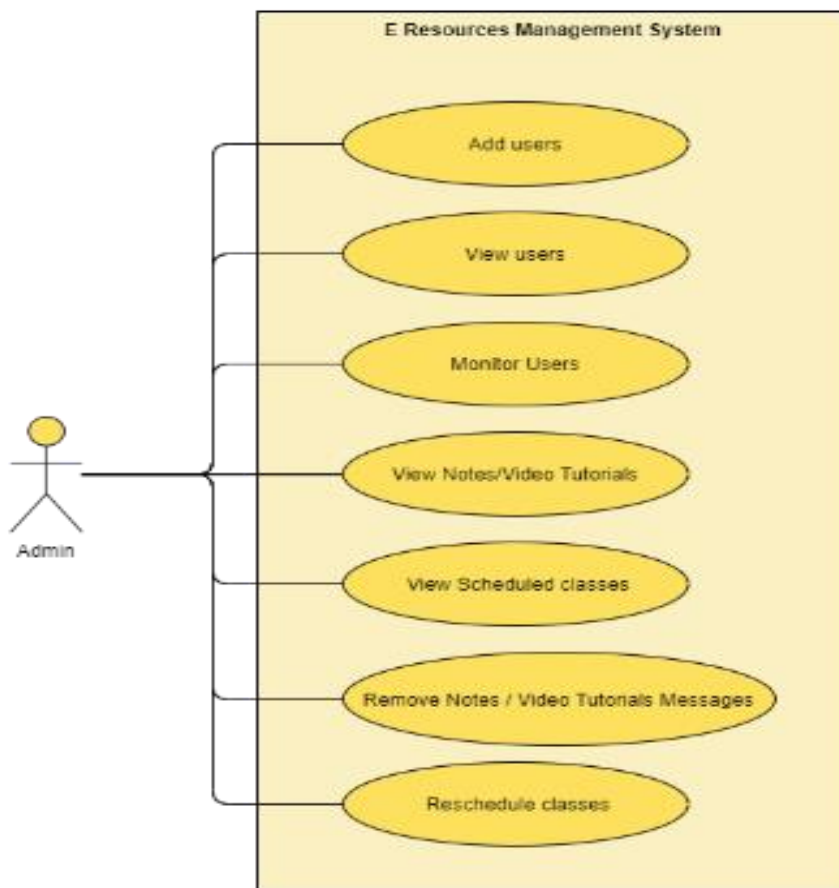
5.5 Use Case Diagram

Use case diagram in the Unified Modelling Language (UML) is a type of behavioural diagram defined by and created from a Use-case analysis. Its purpose is to present a graphical overview of the functionality provided by a system in terms of actors, their goals (represented as use cases), and any dependencies between those use cases.

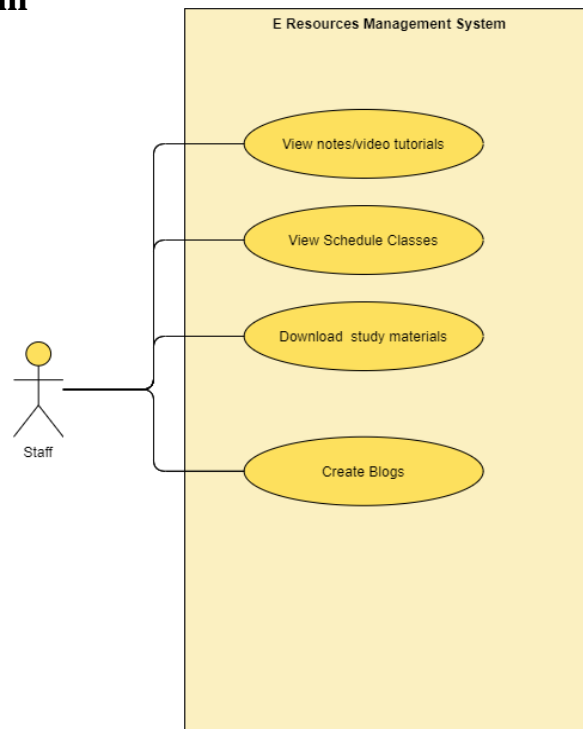
The main purpose of a use case diagram is to show what system functions are performed for which actor. Roles of the actors in the system can be depicted.

Use case Diagram

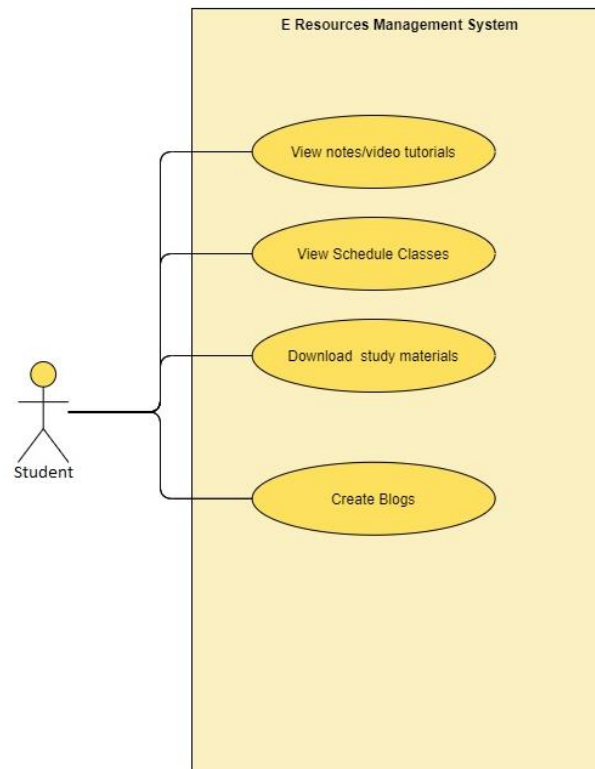
Admin use case Diagram



Staff use case Diagram



Student use case Diagram

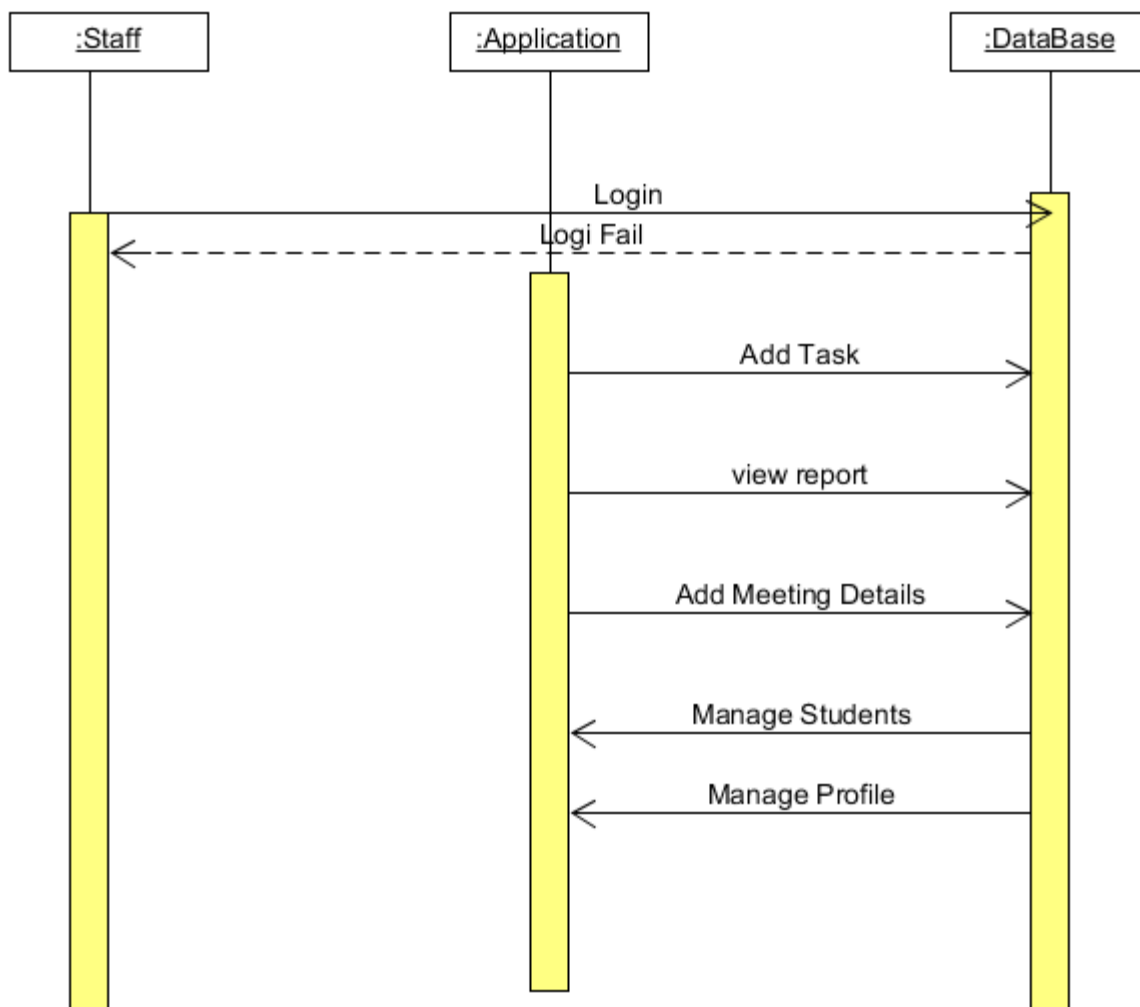


5.6 Sequence Diagram

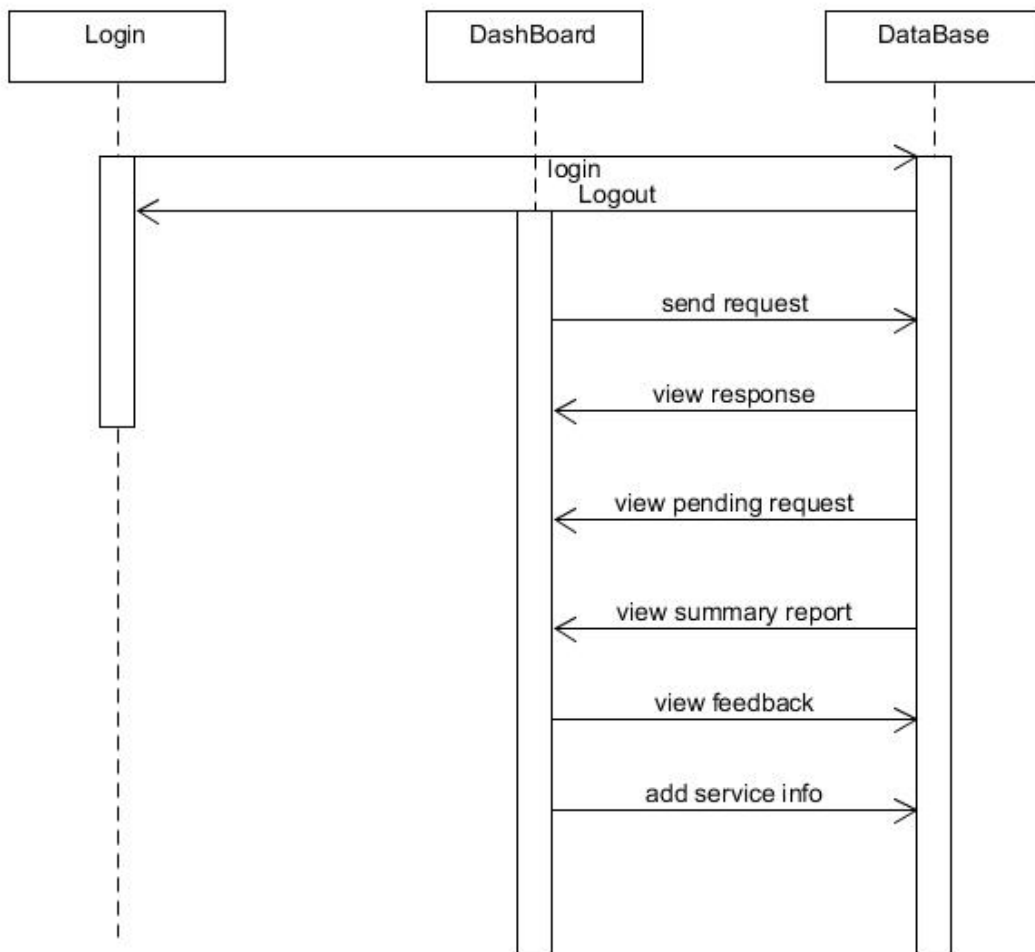
A sequence diagram shows object interactions arranged in a time sequence. It depicts the object and classes involved in the scenario and the sequence of messages exchanged between the objects needed to carry out the functionality of the scenario.

Sequence diagram are typically associated with use case realization in the logical view of the system under development. Sequence diagrams are sometimes called event diagrams or event scenario.

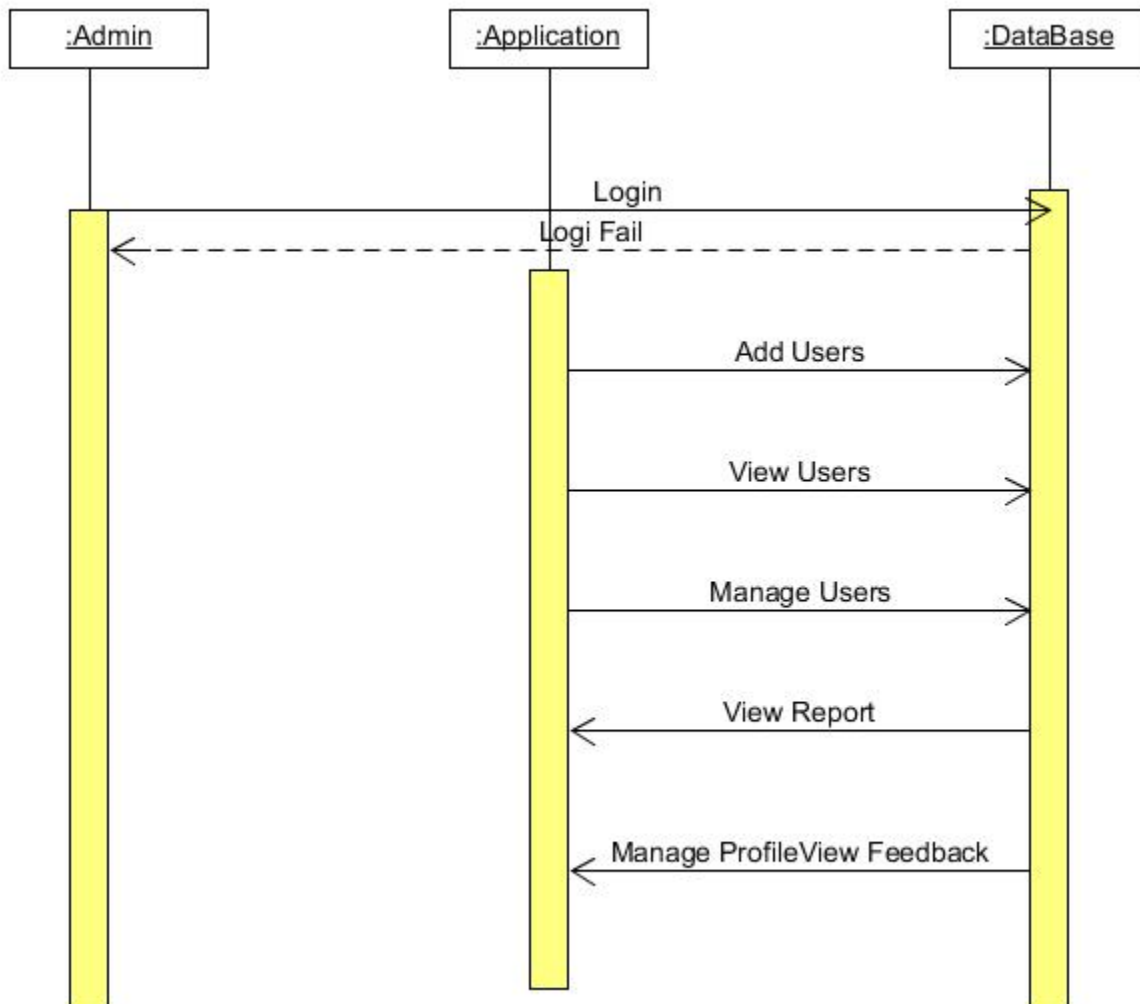
Staff sequence Diagram



Student Sequence Diagram



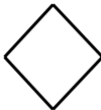


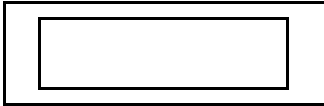


Admin Sequence Diagram

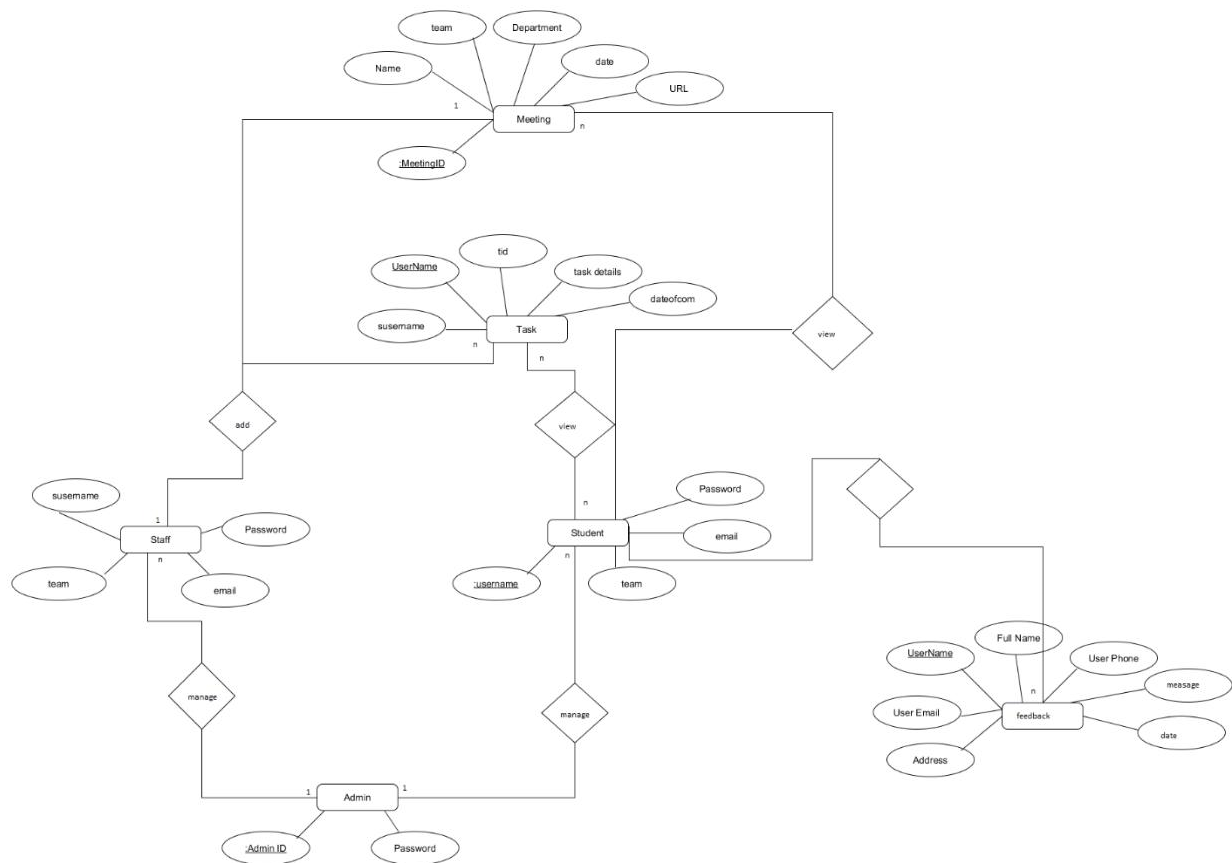


5.7 ER DIAGRAM

In software engineering, an entity-relationship model (ERM) is an abstract and conceptual representation of data. Entity-relationship modelling is a modelling method, used to produce a type of schema or model of a system, often a relational database, and its requirements in a top-down fashion. Diagrams created by this process are called entity-relationship diagrams, ER diagrams, or ERDs.

| Symbol | Description |
|---|---------------------|
|  | Entity |
|  | Attribute |
|  | Entity Relationship |
|  | Primary Key |
|  | Referential Key |
|  | Weak Entity |

Entity Relation Diagram



CHAPTER-6

IMPLEMENTATION

6.1 Implementation Approaches

In this stage physical system specifications are converted into a working and reliable solution. This is where the system is developed. It involves careful planning, investigation of the current system and its constraints on implementation, design of methods to achieve the changeover, an evaluation, of change over methods.

The objective of the system implementation phase is to implement a fully functional system, which deliverables met in order of priority. The result of this phase is an accurately functioning system. The more complex system being implemented, the more involved will be the system analysis and the design effort required just for implementation.

The implementation phase deals with issues of quality, performance, baselines, libraries, and debugging. The end deliverable is the product itself. During the implementation phase, the system is built according to the specifications from the previous phases. This includes writing code, performing code reviews, performing tests, selecting components for integration, configuration, and integration.

Website for E Resources Management System is implemented using JavaScript, PHP general-purpose object-oriented programming language. Object oriented programming is an approach that provides a way of modularizing programs by creating partitioned memory area for both data and functions that can be used as templates for creating copies of such modules on demand.

This project is implemented using MVC architecture. User Interface developed using HTML, CSS and BOOTSTRAP code is used in the Front-End.

Implementation steps

Model

The Model layer refers to the entities, business objects, data source, and other repositories available in our application. Model used to perform the database related operations. It uses JSP and PHP to interact with the database and to perform operations such as information related to the user, products, stores etc.

View

View is a front end or GUI, which invokes Model through Controller, view, consists of latitude and longitude. The view in XAMPP is coded using tools. The view will have all the necessary validations for user entries.

Controller

Controller classes are responsible for handling user input and responses.

- Locating the appropriate action method to call and validating that it can be called.
- Getting the values to use as the action method's arguments
- Handling all errors that might occur during the execution of the action method.
- Providing the user-friendly views to the user.

Testing

Introduction

website run on devices with limited memory, CPU power and power supply. The behaviour of the website also depends on external factors like connectivity, general system utilization, etc.

Therefore, it is very important to debug, test and optimize website. Having reasonable test coverage for website helps to maintain the website.

As it is not possible to test bootstrap website on all possible device configurations, it is a common practice to run on typical device configurations. Should test website at least on one device with the lowest possible configuration. In addition should test on one device with the highest available configuration, e.g., pixel density, screen resolution to ensure that it works fine on these devices.

6.2 Testing Concepts

Website testing is based on Unit. In general, a Unit test is a method whose statements test a part of the website. Organizes test methods into classes called test cases, and group test cases into test suites

Unit tests

Local Unit Tests

Unit tests that run on local machine only. These tests are compiled to run locally on the NetBeans to minimize execution time. Use this approach to run unit tests that have no dependencies on the web framework or have dependencies that mock objects can satisfy.

Instrumented unit tests

Unit tests that run on device. These tests have access to Instrumentation information, such as the Context of the application are testing. Use this approach to run unit tests that have web application dependencies, which mock objects cannot easily satisfy.

Integration Tests

This type of test verifies that the target app behaves as expected when a user performs a specific action or enters a specific input in its activities. For example, it allows checking that the target app returns the correct UI output in response to user interactions in the app's activities. UI testing frameworks like Espresso allow programmatically simulating user actions and testing complex intra-app user interactions.

6.3 Test Cases:

A test case is a set of conditions or variables under which a tester will determine whether a system under test satisfies requirements or works correctly. The process of developing test cases can also help find problems in the requirements or design of an application. The following tables show the various test cases scenarios that are generated along with the required inputs of the given scenarios, expected outputs, actual output and the result whether the test passes or fails.

Test cases with positive scenarios

| TC No | Positive scenario | Required Input | Expected output | Actual output | Test Result |
|-------|----------------------|-------------------------------------|------------------------------|-------------------------|-------------|
| 1 | Verify login page | Enter a valid username and password | Should successfully login | Logged in successfully | Pass |
| 2 | Verify Register Page | Enter username and other details | Should successfully register | Registered successfully | Pass |

| | | | | | |
|----|--------------------------|-------------------------------|--|---|------|
| 3 | Post Meeting information | Enter details | Should display the post made | Displays the post made | Pass |
| 4 | Profile Update | Edit the user details | Should change the details | Changes are saved | Pass |
| 5 | Add task information | Add task details | Should update | task list gets updated | Pass |
| 6 | Notifications | Request and response | Shows the request in notifications | Can choose one request | Pass |
| 7 | View Meeting Info | Click meeting info | View Meeting URL and meeting details | Display result | Pass |
| 8 | View Task | Click view task info | Task information must be display | Display the result | pass |
| 9 | Ask queries by user | Click on send response button | Request sent to service provider | Request display in service provider profile | pass |
| 10 | Session Expiry | Logout from the site | Session should expire by erasing previous actions of users | Session expires from logged out | Pass |

Test Cases with Negative Scenarios

| TC No. | Negative scenario | Required Input | Expected output | Actual output | Test Result |
|--------|-----------------------|---------------------------------------|------------------------------|-------------------------------------|-------------|
| 1 | Verify login Page | Enter a Invalid username and password | Should display error message | Display error message | Pass |
| 2 | Verify Register Page | Enter existing username | Should not register | Cannot register with existing users | Pass |
| 3 | Verify meeting info | Meeting should be on. | Display meeting | Display error message | pass |
| 4 | Post task information | skip details | Should display error message | Display error message | Pass |
| 5 | Profile Update | Make blank updates | Should Not update | Display no updates | Pass |
| 6 | Notifications | Send blank request | Should not add to list | Display no notifications | Pass |

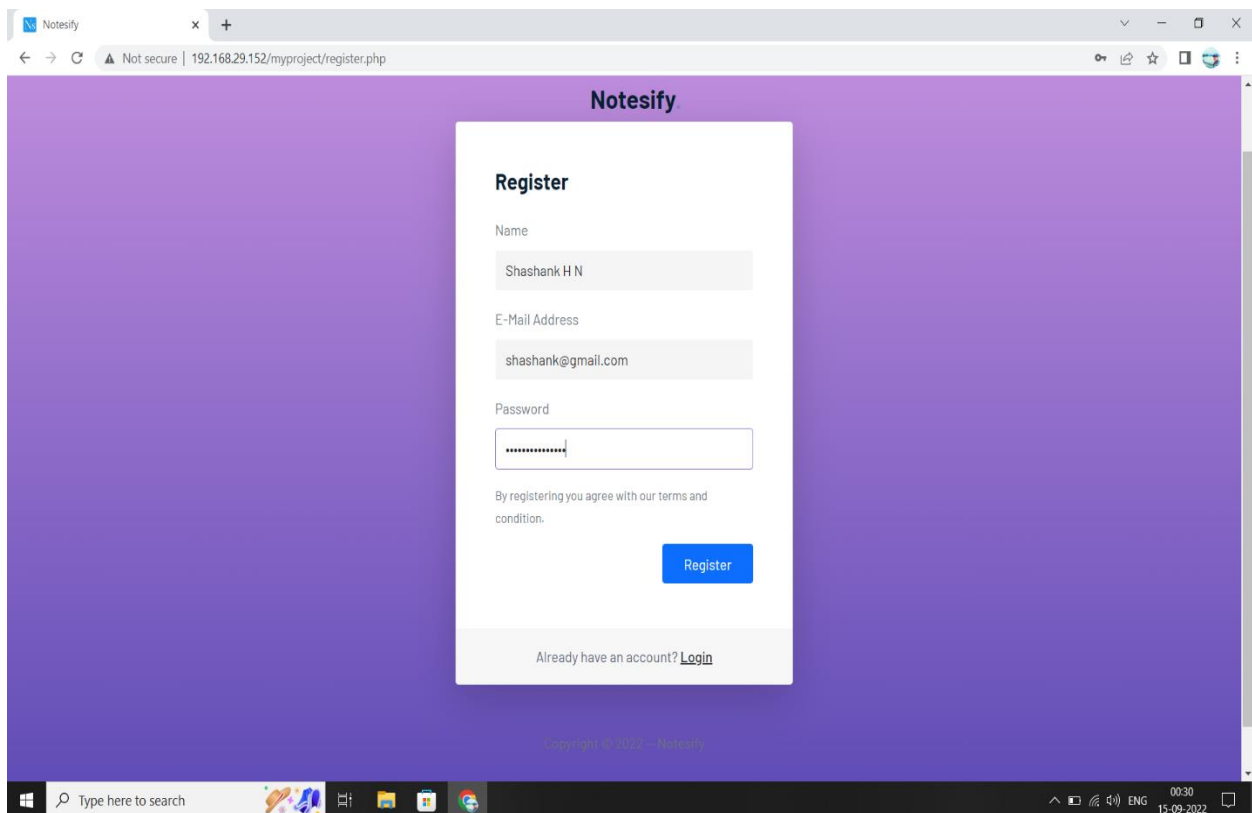
CHAPTER-7

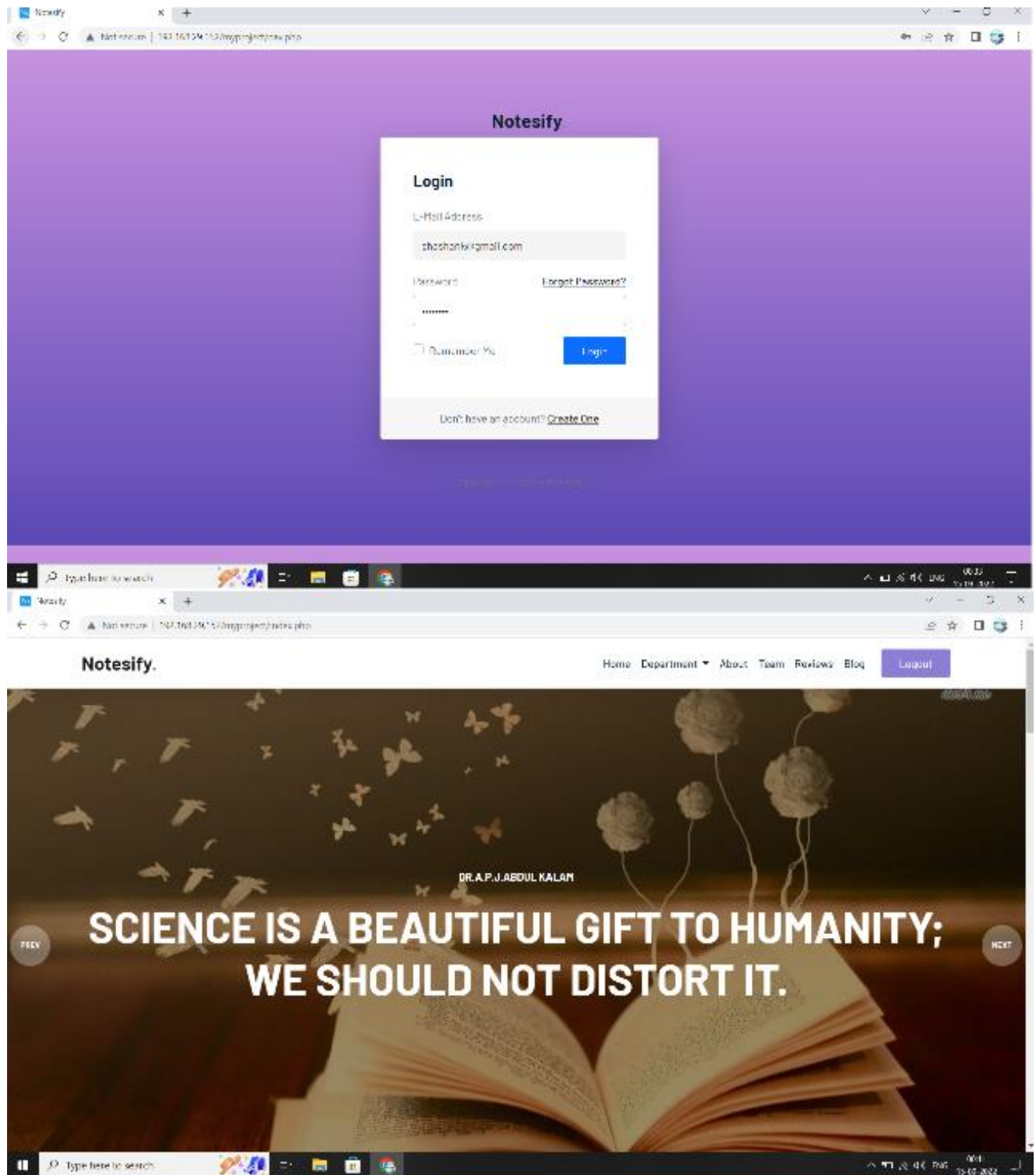
SNAPSHOTS

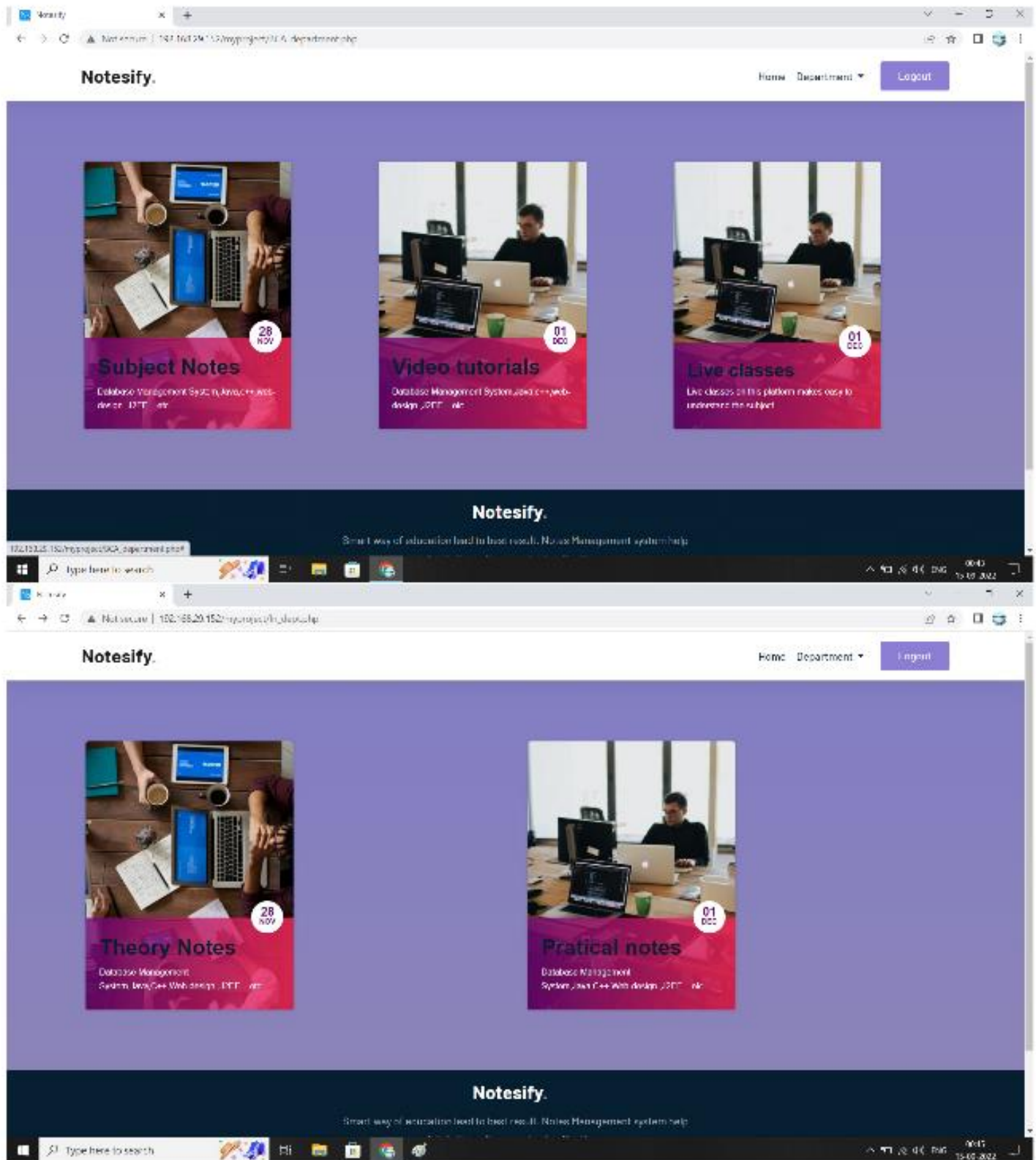
Snapshots

This chapter highlights the results of project and the snapshots for each of the activities are shown along with a description about the working of each activity. Each snapshot describes every single step Online Meeting and task management Application. All the main activities as well as the options provided to the users in each activity are also shown in the following snapshots.

Student portfolio:







Teachers portfolio:

The screenshot displays the Notesify application interface. The top section shows the login page with a purple gradient background. The login form includes fields for Email Address (vinaykumarachari@gmail.com) and Password (masked with dots), a 'Remember Me' checkbox, and a 'Login' button. Links for 'Forgot Password?' and 'Create One' are also present.

The bottom section shows the dashboard after login. It features four main action cards: 'Upload PDF' for Theory notes, 'Upload PDF' for Practical notes, 'Upload Video' for Video tutorials, and 'Schedule Live' for Live sessions. Below these is a 'Recent Uploads' table with columns for No., Subject, Uploaded By, and LINK. The table currently shows 'No Records'.

| No. | Subject | Uploaded By | LINK |
|------------|---------|-------------|------|
| No Records | | | |

Admin portfolio :

Notesify

Login

Email Address
winayamanathan@gmail.com

Password
.....

☐ Remember Me

[Forgot Password?](#)

[Login](#)

[Don't have an account? Create One](#)

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Notesify.

- Dashboard
- Create Blog
- QR Code Generator
- Account Creation

OVERVIEW

Dashboard

UPLOAD PDF

Theory notes

UPLOAD PDF

Practical notes

UPLOAD Video

Video tutorials

SCHEDULE LIVE

Live

Schedule live classes

Recent Uploads :

| No. | Subject | Uploaded By | LINK | Action |
|-----|---------|-------------|----------|------------------------|
| 1 | C++ | admin | download | Delete |
| 1 | Java | admin | download | Delete |
| 1 | DBMS | admin | download | Delete |
| 1 | DBMS | sagar | download | Delete |
| 1 | HTML | sagar | download | Delete |

CHAPTER-8

CONCLUSION AND FUTURE ENHANCEMENT

Future Enhancement

In future enhancement we can add more feature like live chat and video calling option and we can also suggest to build mobile based application.

Conclusion

The survey helped in building a collaborative system for students as well as staff for performing project related tasks. This system has overcome all the traditional process of manually submitting the project abstracts, synopsis or any other documents and online meeting sharing. Also it provides a platform where guide can allot tasks to their respective group and student can choose his group as well as can choice his project guide. Project related tasks can be allotted by the project guide and other faculties can only give reviews over it if they wish to. Students can directly upload their proposed work and the documentation on this system for evaluation of the work. At the end of the project completion, based on the performance of the students, a report will be generated for the academics and grading of the student.

CHAPTER-9

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