A

## **REPORT**

## STUDENTS MANAGEMENT SYSTEM

## **UNDER**

## NON SYLLABUS PROJECT



# DEPARTMENT OF COMPUTER ENGINEERING POORNIMA INSTITUTE OF ENGINEERING AND TECHNOLOGY, JAIPUR (Academic Year 2020-21)

Submitted To: Submitted By:

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#### 1. Introduction of Project

#### 1.1 Objective of Project

Student Information Management System can be used by education institutes to maintain the records of students easily. Achieving this objective is difficult using a manual system as the information is scattered, can be redundant and collecting relevant information may be very time consuming. All these problems can be solved using this project. It tracks all the details about the logins, profiles and courses.

#### 1.2 Scope

Without a Student Management System, managing and maintaining the details of the student is a tedious job for any organization. Student management system will store all the details of the students including their background information, educational qualifications, personal details and all the information related to their resume. It also helps in current all works relative to student management system.

#### 1.3 Purpose

The purpose of student management system is to allow educational institutions to mainatain and share useful information such as important notifications, results and class resources share directly to students. Also it allow students to check their attendance report, results, give feedback to college administration and can also apply for leave.

Oversall, it makes job easier of administrator, faculty and students of any organization or institute.

## 2. Feasibility Study

Feasibility study includes consideration of all the possible ways to provide a solution to the given problem. The proposed solution should satisfy all the user requirements and should be flexible enough so that future changes can be easily done based on the future upcoming requirements.

#### 2.1 Technical feasibility

This included the study of function, performance and constraints that may affect the ability to achieve an acceptable system. For this feasibility study, we studied complete functionality to be provided in the system, as described in the System Requirements Specification (SRS), and checked if everything was possible using different type and backend platform.

This project is technically feasible in every manner, all we need to do is enter the data for new entries and delete the old records timely. Update the records of individuals if any changes are required and the best feature of this project is that users can search for specific entries using any search filter. The project does not need any maintenance cost or any transportation cost as well.

## 3. Requirement Analysis

#### 3.1 Hardware requirement

Hardware Requirement includes a system with minimum 4GB RAM, minimum 25GB Free Disk Space, and any low end processor and an active internet connection.

As the website is completely responsive so it can be opened on any device like PC, Mobile, tablet, laptop, chromebook, macbook, etc

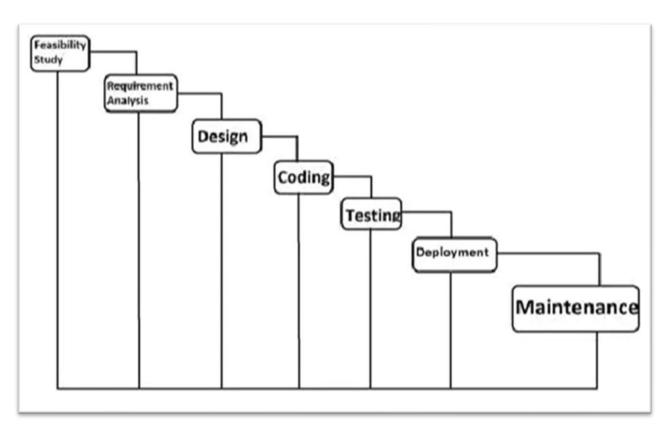
#### 3.2 Software requirement

As it is a website so it can be opened only on a browser like Chrome, Mozilla, Opera, Safari, Brave, Microsoft Edge, Vivaldi, DuckDuckgo, Internet Explorer, Chronmium, Baidu Browser, Comodo Ice dragon, Maxthon, Avant, CoolNovo, Orbitum, CLIQZ Browser, etc.

#### 3.3 Technology Used

- HTML
- CSS
- Javascript
- DFD
- UML
- Operating System Windows 10

#### Process model



For our project (Student Management System) we used waterfall model.

**Waterfall Model** is a sequential model that divides software development into pre-defined phases. Each phase must be completed before the next phase can begin with no overlap between the phases. Each phase is designed for performing specific activity during the SDLC phase. It was introduced in 1970 by Winston Royce.

#### ADVANTAGES OF WATERFALL MODEL:

- 1. Before the next phase of development, each phase must be completed
- 2. Suited for smaller projects where requirements are well defined
- 3. They should perform quality assurance test (Verification and Validation) before completing each stage
- 4. Elaborate documentation is done at every phase of the software's development cycle
- 5. Project is completely dependent on project team with minimum client intervention
- 6. Any changes in software is made during the process of the development

#### This type of model is used when:

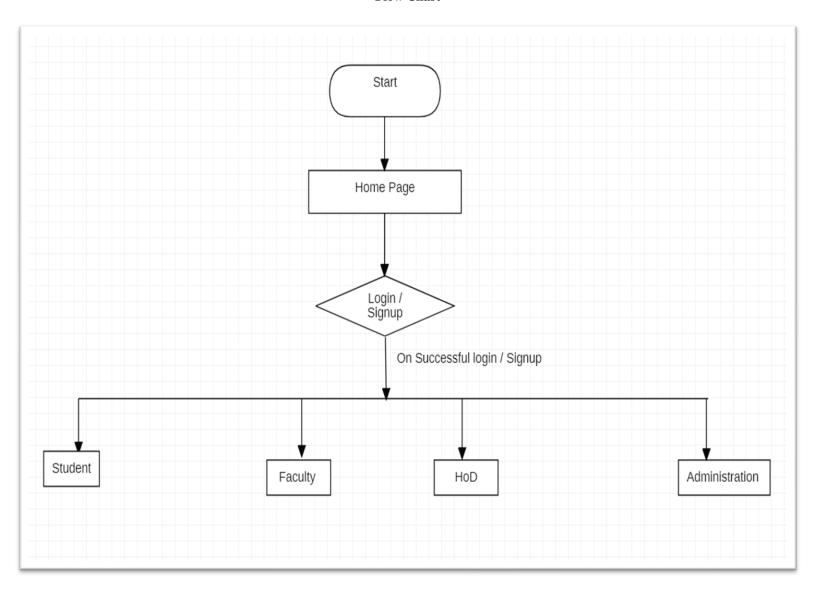
- 1. Requirements are not changing frequently
- 2. Application is not complicated and big
- 3. Project is short
- 4. Requirement is clear
- 5. Environment is stable
- 6. Technology and tools used are not dynamic and is stable
- 7. Resources are available and trained.

# 4. Design

## 4.1 Flow Chart:-

A flow chart is a type of diagram that represents a workflow or process. It can also be defined as a diagrammatic representation of an algorithm, a step-by-step approach to solving a task.

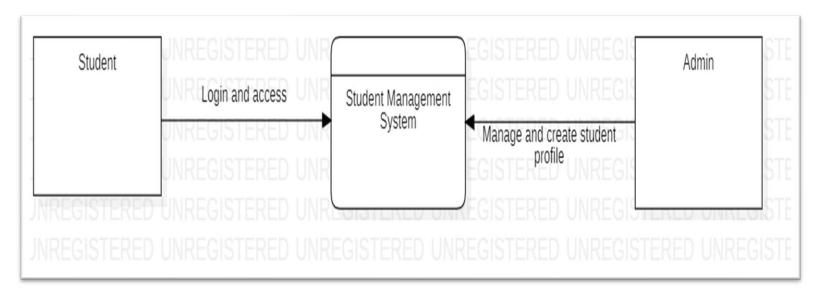
## Flow Chart

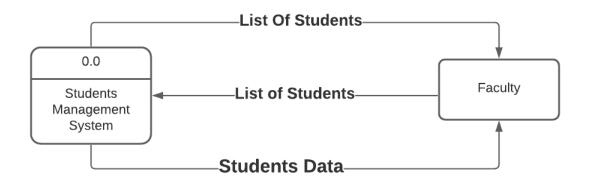


## 4.2 DFD level 0-diagram: -

DFD Level 0 is also called a Context Diagram. It's a basic overview of the whole system or process being analysed or modelled. It's designed to be an at-a-glance view, showing the system as a single high-level process, with its relationship to external entities.

DFD level 0-diagram

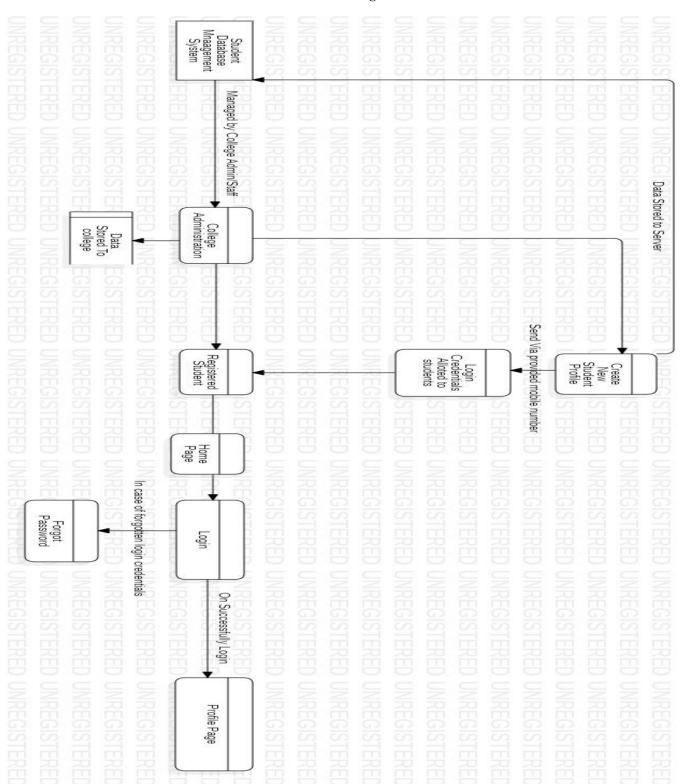




#### 4.3 DFD level 1-diagram: -

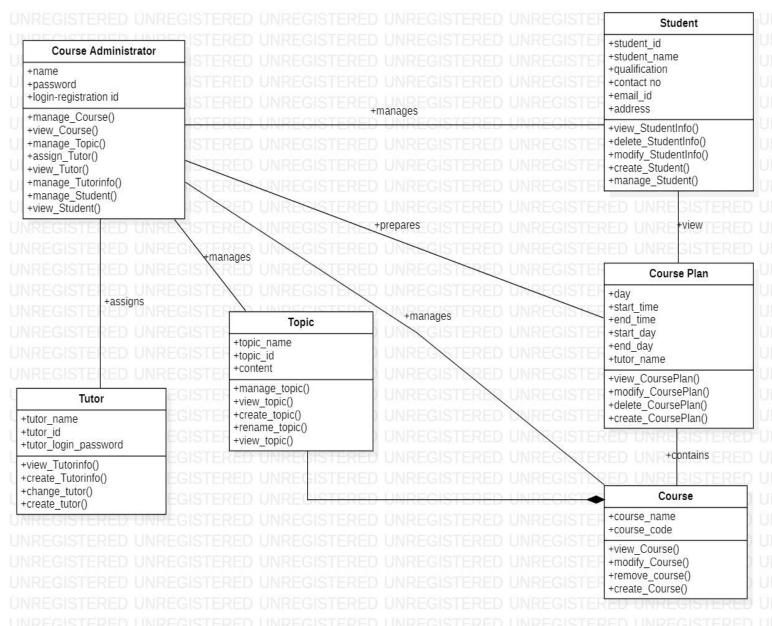
DFD Level 1 provides a more detailed breakout of pieces of the Context Level Diagram. You will highlight the main functions carried out by the system, as you break down the high-level process of the Context Diagram into its subprocesses.

#### DFD level 1-diagram



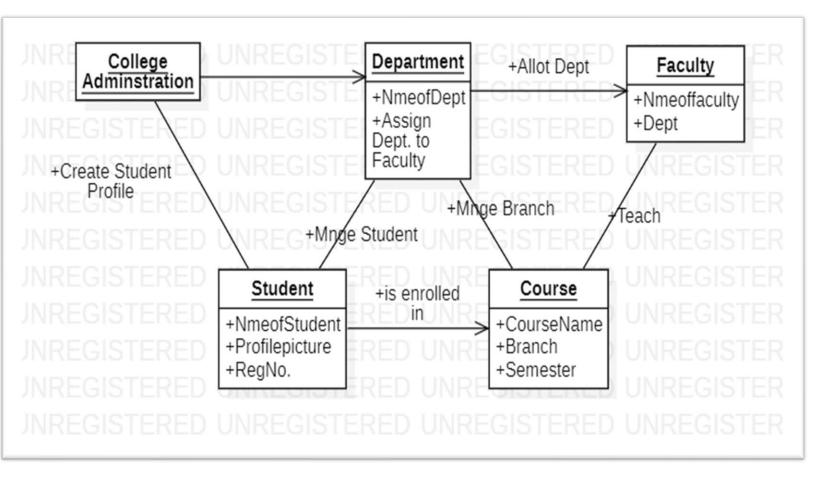
## 4.4 Class Diagram: -

The class diagram is the main building block of object oriented modelling. It is used for general conceptual modelling of the structure of the application, and for detailed modelling, translating the models into programming code. Class diagrams can also be used for data modelling. The classes in a class diagram represent both the main elements, interactions in the application, and the classes to be programmed.



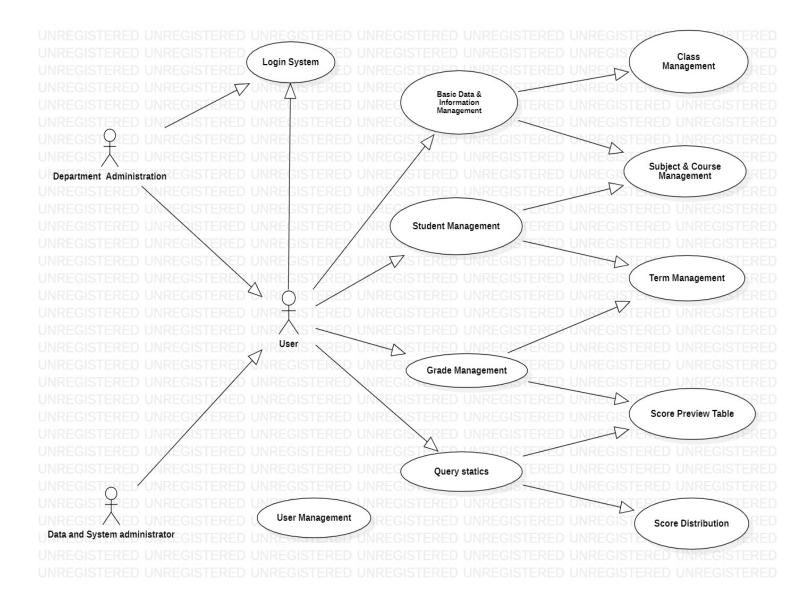
## 4.5 Object Diagram: -

Object diagrams use notation that is similar to that used in class diagrams. These diagrams show specific instances of those classifiers and the links between those instances at a point in time. You can create object diagrams by instantiating the classifiers in class, deployment, component, and use-case diagrams.



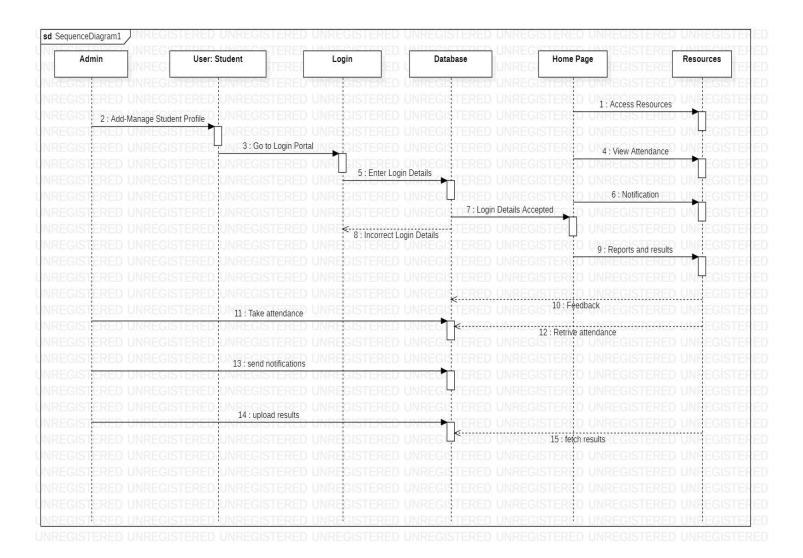
#### 4.6 Use-case Diagram: -

In UML, use-case diagrams model the behaviour of a system and help to capture the requirements of the system. Use-case diagrams describe the high-level functions and scope of a system. These diagrams also identify the interactions between the system and its actors. The use cases and actors in use-case diagrams describe what the system does and how the actors use it, but not how the system operates internally. Use-case diagrams illustrate and define the context and requirements of either an entire system or the important parts of the system. You can model a complex system with a single use-case diagram or create many use-case diagrams to model the components of the system. You would typically develop use-case diagrams in the early phases of a project and refer to them throughout the development process.



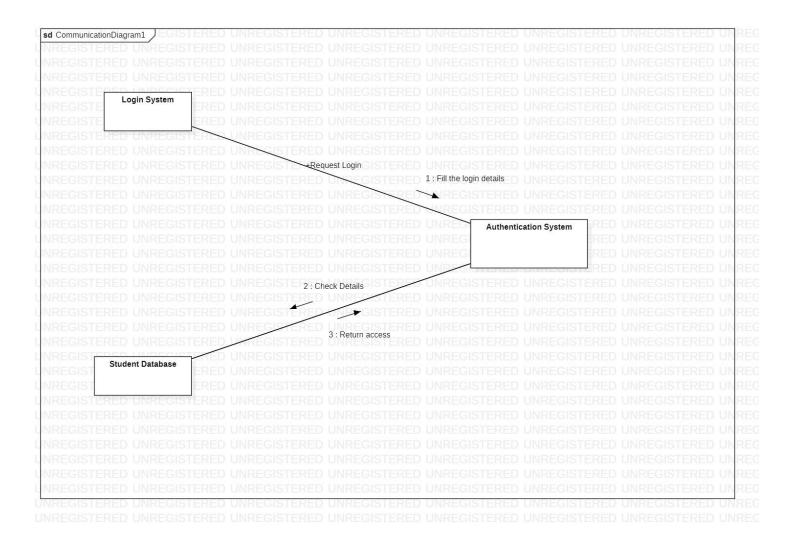
## 4.7 Sequence Diagram: -

A sequence diagram is a type of interaction diagram because it describes how—and in what order—a group of objects works together. These diagrams are used by software developers and business professionals to understand requirements for a new system or to document an existing process. Sequence diagrams are sometimes known as event diagrams or event scenarios.



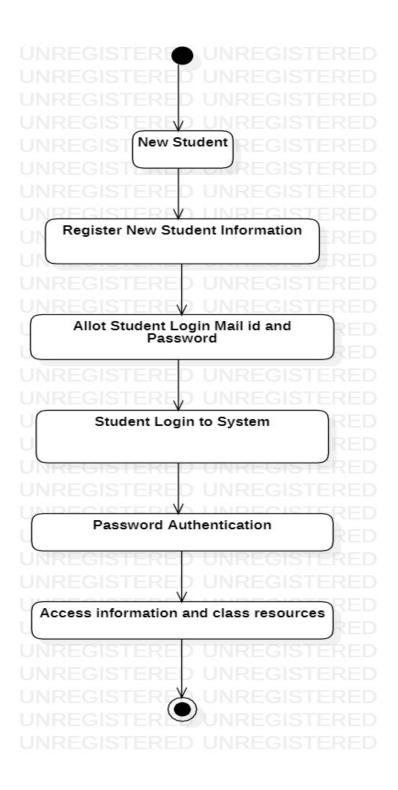
## 4.8 Communication or Collaboration Diagram: -

A collaboration diagram, also known as a communication diagram, is an illustration of the relationships and interactions among software objects in the Unified Modelling Language (UML). These diagrams can be used to portray the dynamic behaviour of a particular use case and define the role of each object. Collaboration diagrams are created by first identifying the structural elements required to carry out the functionality of an interaction. A model is then built using the relationships between those elements. Several vendors offer software for creating and editing collaboration diagrams. Collaboration diagrams should be used when the relationships among objects are crucial to display. However, collaboration diagrams are best suited to the portrayal of simple interactions among relatively small numbers of objects. As the number of objects and messages grows, a collaboration diagram can become difficult to read and use 10 efficiently. Additionally, collaboration diagrams typically exclude descriptive information, such as timing.



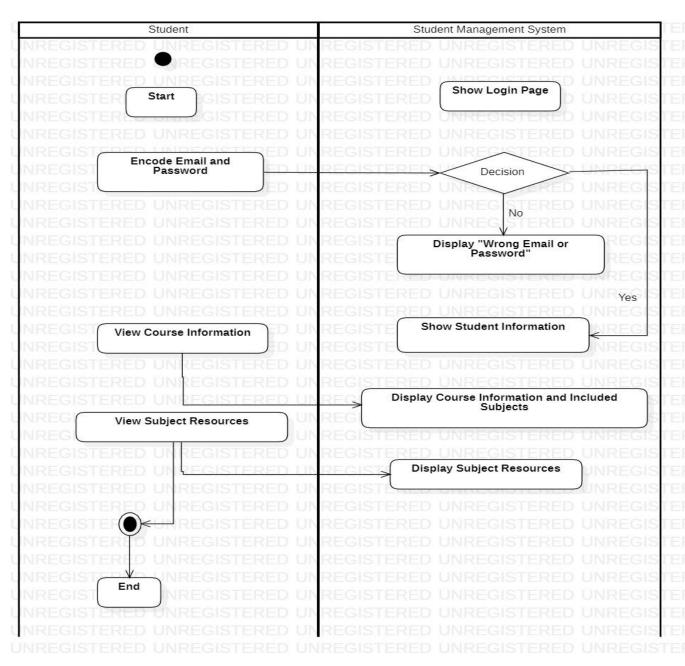
## 4.9 State-chart Diagram: -

State chart diagram is one of the five UML diagrams used to model the dynamic nature of a system. They define different states of an object during its lifetime and these states are changed by events. State chart diagrams are useful to model the reactive systems. Reactive systems can be defined as a system that responds to external or internal events. State chart diagram describes the flow of control from one state to another state. States are defined as a condition in which an object exists, and it changes when some event is triggered. The most important purpose of State chart diagram is to model lifetime of an object from creation to termination. State chart diagrams are used to model the states and the events operating on the system. When implementing a system, it is very important to clarify different states of an object during its lifetime and State chart diagrams are used for this purpose. 11 When these states and events are identified, they are used to model it and these models are used during the implementation of the system.



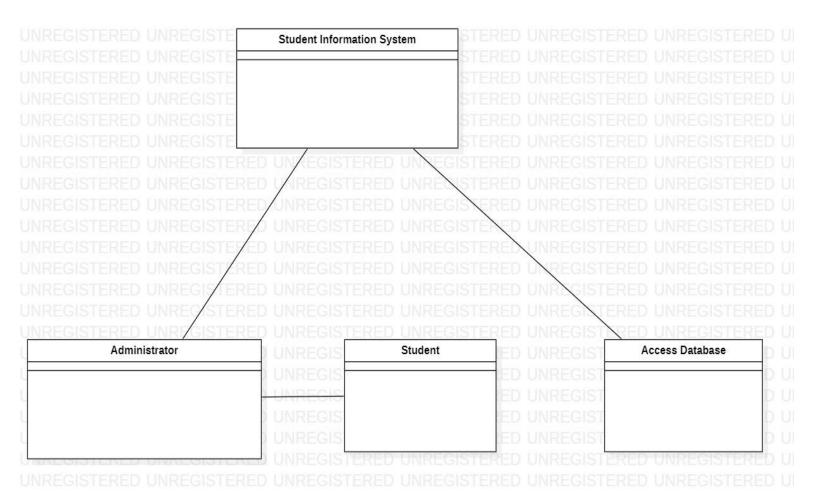
## 4.10 Activity Diagram: -

We use Activity Diagrams to illustrate the flow of control in a system and refer to the steps involved in the execution of a use case. We model sequential and concurrent activities using activity diagrams. So, we basically depict workflows visually using an activity diagram. An activity diagram focuses on condition of flow and the sequence in which it happens. We describe or depict what causes a particular event using an activity diagram. 12 UML models basically three types of diagrams, namely, structure diagrams, interaction diagrams, and behaviour diagrams. An activity diagram is a behavioural diagram i.e. it depicts the behaviour of a system. An activity diagram portrays the control flow from a start point to a finish point showing the various decision paths that exist while the activity is being executed. We can depict both sequential processing and concurrent processing of activities using an activity diagram. They are used in business and process modelling where their primary use is to depict the dynamic aspects of a system.



#### 4.11 Deployment Diagram: -

Deployment diagrams are used to visualize the topology of the physical components of a system, where the software components are deployed. Deployment diagrams are used to describe the static deployment view of a system. Deployment diagrams consist of nodes and their relationships. Deployment diagrams are used for describing the hardware components, where software components are deployed. Component diagrams 13 and deployment diagrams are closely related. Deployment diagram represents the deployment view of a system. It is related to the component diagram because the components are deployed using the deployment diagrams. A deployment diagram consists of nodes. Nodes are nothing but physical hardware used to deploy the application. Deployment diagrams are useful for system engineers.



#### Maintenance

#### **Cost Estimation**

This project is an example of a one-time investment.

## **Future Application**

- 1. This will help keep records of large institutions and organizations.
- 2. This will help keep basic information of individuals.
- 3. It is also an example of modern system with simplicity.
- 4. Social networking can also be added wherein students can interact with each other.
- 5. Online class functionality can be added.
- 6. Can evolve as an online institution.
- 7. Functionality of chat and messages can be added.
- 8. Online exam functionality can be added.
- 9. Online resume builder functionality can also be added

#### Conclusion

This project is a desktop application programmed to implement and encourage the mission of Digital India and saving the old important records in an organized manner. It is a user-friendly and efficient application to reduce more and more paperwork for receptionists in the institutions.

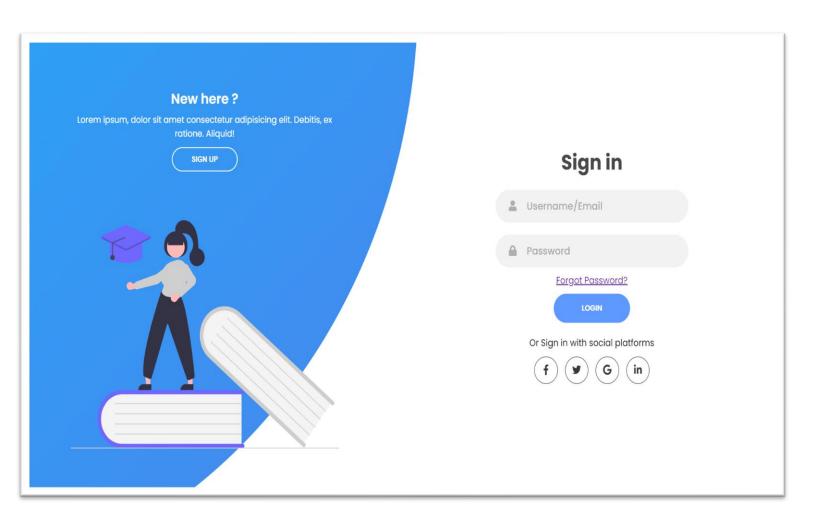
## References

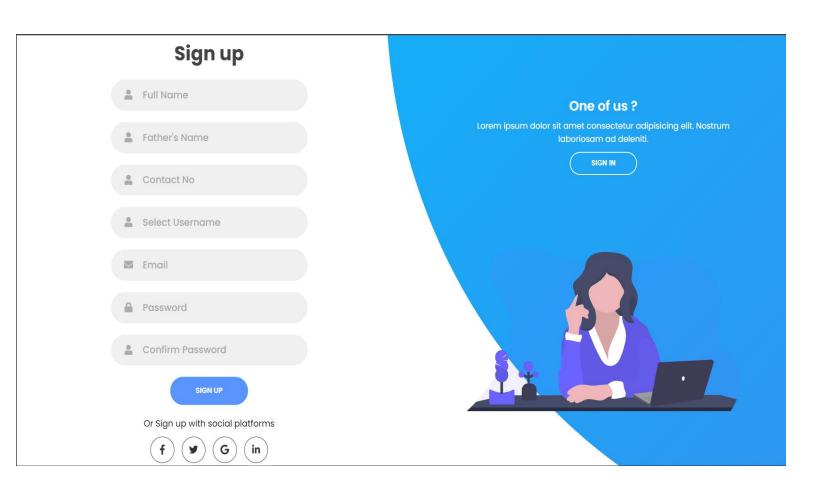
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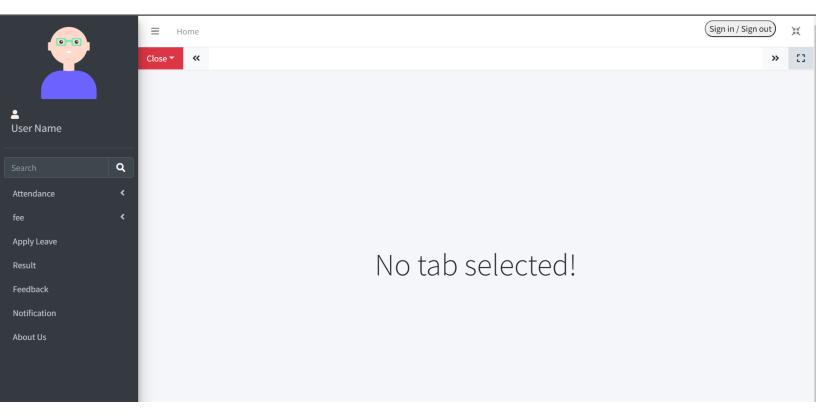
• Wikipedia:- <u>www.wikipedia.com</u>

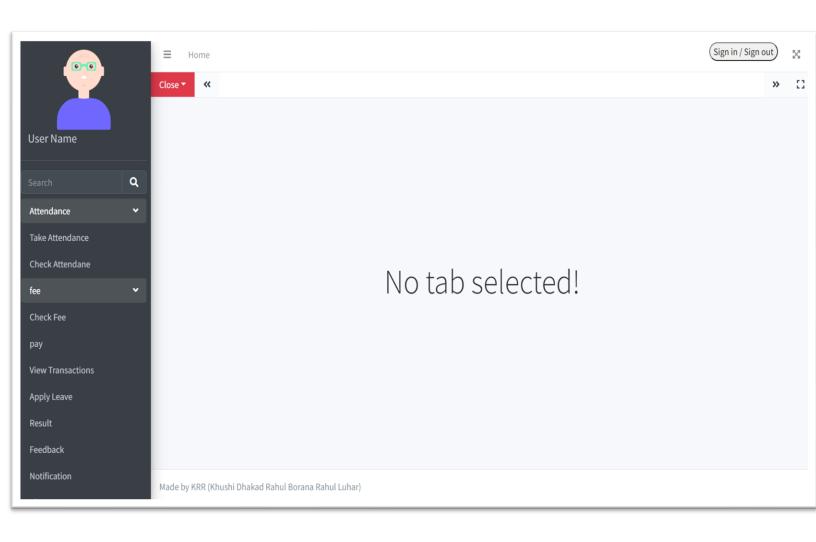
• W3 Schools :- www.w3schools.com

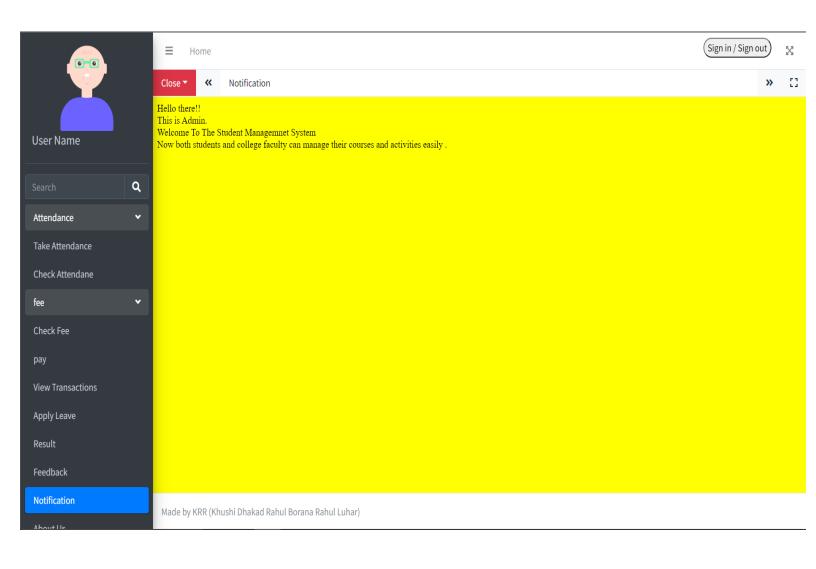
# **Snapshots**











# **About Us**

We are the developers who build this project.

We are a team of 3 members named as .

## **Our Team**

## Khushi Dhakad

Team Member

Some text that describes me lorem ipsum ipsum lorem. contact1@poornima.org

Contact

## **Rahul Borana**

Team Member

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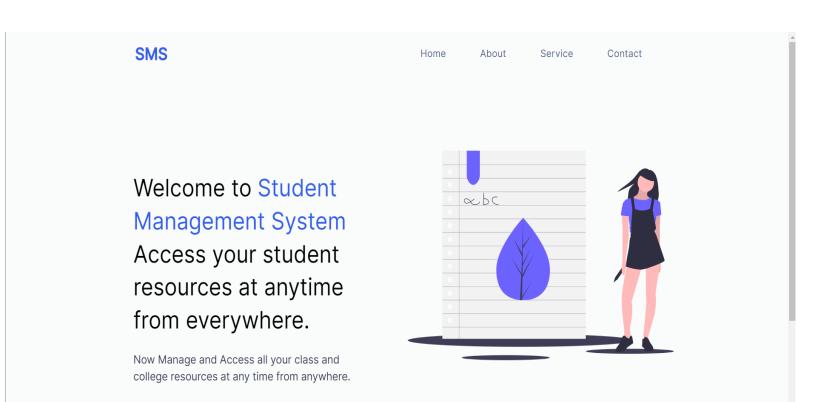
Contact

## **Rahul Luhar**

Team Member

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Contact



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#### Send us a message

If you have any work from me or any types of quries, suggestions or feedback related to our project, feel free to drop your message here. we will reach you as soon as we can. It's our pleasure to help you.

Enter your name

Enter your email

Enter your message here



#### Code

```
1 <!DOCTYPE html>
4 <meta name="viewport" content="width=device-width, initial-scale=1">
5 ▼ <style>
6 ▼ body {
   font-family: Arial, Helvetica, sans-serif;
   margin: 0;
11 ▼ html {
   box-sizing: border-box;
15 ▼ *, *:before, *:after {
box-sizing: inherit;
     width: 33.3%;
   margin-bottom: 16px;
     padding: 0 8px;
     box-shadow: 0 4px 8px 0 rgba(0, 0, 0, 0.2);
     margin: 8px;
31 ▼ .about-section {
```

```
<h1>About Us Page</h1>
     Some text about who we are and what we do.
     Resize the browser window to see that this page is responsive by the way.
84 <h2 style="text-align:center">Our Team</h2>
85 ▼ <div class="row">
     <div class="column">
       <div class="card">
         <img src="/w3images/team1.jpg" alt="Jane" style="width:100%">
           <h2>Jane Doe</h2>
           CEO & Founder
           Some text that describes me lorem ipsum ipsum lorem.
           jane@example.com
           <button class="button">Contact</button>
       <div class="card">
         <img src="/w3images/team2.jpg" alt="Mike" style="width:100%">
         <div class="container">
           <h2>Mike Ross</h2>
```

```
<!DOCTYPE html>
      <head>
        <meta charset="UTF-8">
       <title> Feedback Form </title>
        <link rel="stylesheet" href="style.css">
        awesome/5.15.2/css/all.min.css"/>
         <meta name="viewport" content="width=device-width, initial-scale=1.0">
12 ▼ <body>
        <div class="content">
          <div class="left-side">
            <div class="address details">
              <i class="fas fa-map-marker-alt"></i></i>
              <div class="topic">Address</div>
              <div class="text-one">Poornima Institute of Engineering and Technology </div>
              <div class="text-two">ISI - 2, Poornima Marg, Sitapura, Jaipur, Rajasthan 302022</div>
            <div class="phone details">
              <i class="fas fa-phone-alt"></i></i>
              <div class="topic">Phone</div>
              <div class="text-one">+91 0123456789
              <div class="text-two">+91 1234567890</div>
              <i class="fas fa-envelope"></i></i></or>
              <div class="topic">Email</div>
```