Project Name: Student Information and Maintaining System

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Student Information and Maintaining System

Abstract

Student information and maintaining system is a management information system for education sector establishments used to manage student data. Student information and maintaining system is useful for every educational institute where there is need to maintain and organize student's information. In existing system manual methods are used to where student's information is maintained in records, in this process data accessing is hard and there are chances of loosing data. In order to solve this problem we implement a software application where data is maintained in database. So it is easy to retrieve and maintain data. Student information systems provide capabilities for registering students in courses, documenting batch information, the results of student assessment scores and managing other student-related data needs in an educational institution. This application is developed in four modules batch module, course module, registration module and result module. Student management systems work to make the management of information more accessible. We tried to provide a convenient system environment for administrator and student. Administrator of any educational institution can easily collect & store student information and students can see their results by giving required information.

1. Introduction

Student information and maintaining system is a desktop based application that stores student information. This project provides a system where administrator can store batch information, course information registration information and student can see their result. For this at first administrator or students should login. After login by batch option administrator can store every batch of the institute, by course option can store course details, by registration option can store student's personal information and by result option student can see their result.

1.1. Motivation

In the current system collecting of a student information are done manually that is time consuming and difficult to maintain and store. For making the process easier we have developed this project. The key motivation behind student information and maintaining system-

- Easier store facility
- Data preservation easy
- Time efficiency
- Shortage of manpower
- Digitalization.

1.2. Objective

“Student Information and Maintaining System” aims at storing information about student for reaching this goal several approaches are introduce in our project. These are giving login information, add batch information, course information, registration information, also can delete or update information about all students. Students can see their result and registered course & batch information. This application consume huge amount of time and demands lot of manpower since every activity must be done manually. In order to make information maintenance more time efficient and to reduce manpower involve we develop student information and maintaining system. The main advantage of this application is adding deleting and updating information can be performed.

The primary purpose of the Student Information System is to manage and store the student’s related data on a secured environment. This platform allows the admin to store student’s academic records in one place and ensure the only authorized person can access the information. Additionally, institute the rack the academic performance of students and take data-driven decisions to enhance students’ academic productivity.

Besides this, the perfect student management system is also

- Secured Data Storage
- Customizable as per institution need
- Easy Accessibility
- User-friendly UI
- Minimize Paperwork

2. Review Analysis

Our idea of creating ‘’Student information and maintaining system’’ is quite related to a number of other works. For example

Maharshi Arvind Institute of Engineering And Technology has created ’Student information and maintaining system’’, where they add features for storing students personal information, can edit & delete information. But there are no features for showing result which is we have develop in our project.

Fedena blogs describes purpose of student information and maintaining system in this there are features for storing student information, result information, attendance information and enroll information. In our project we have not add any features for attendance information and enroll information. But their project has no features for store all batch and running course information. We have developed this features in our project.

Tuiopay blogs describes purpose of student information and maintaining system in this there are features for storing student information about grade, health and age information. Their project has no features for store all batch and running course information, store telephone and address information. We have developed this feature in our project.

We have created simple student information and maintaining system for managing student data. To remain simplicity we have not add more features.

3. Proposed Methodology

To implement student information and maintaining system used various approached and methodologies these are given below-

3.1. Technologies Used

- NetBeans IDE
- Xampp Server
- Php Admin
- MySQL Database
- Language Java

3.2. Use-Case Diagram

Use Case Diagram is used to show the different aspects of actions of different users used in a system. In our project we use two types of users namely-

- User: Users can add update and delete information about student.
- Admin: Admin can upload information directly into the central database also can handle an update database.

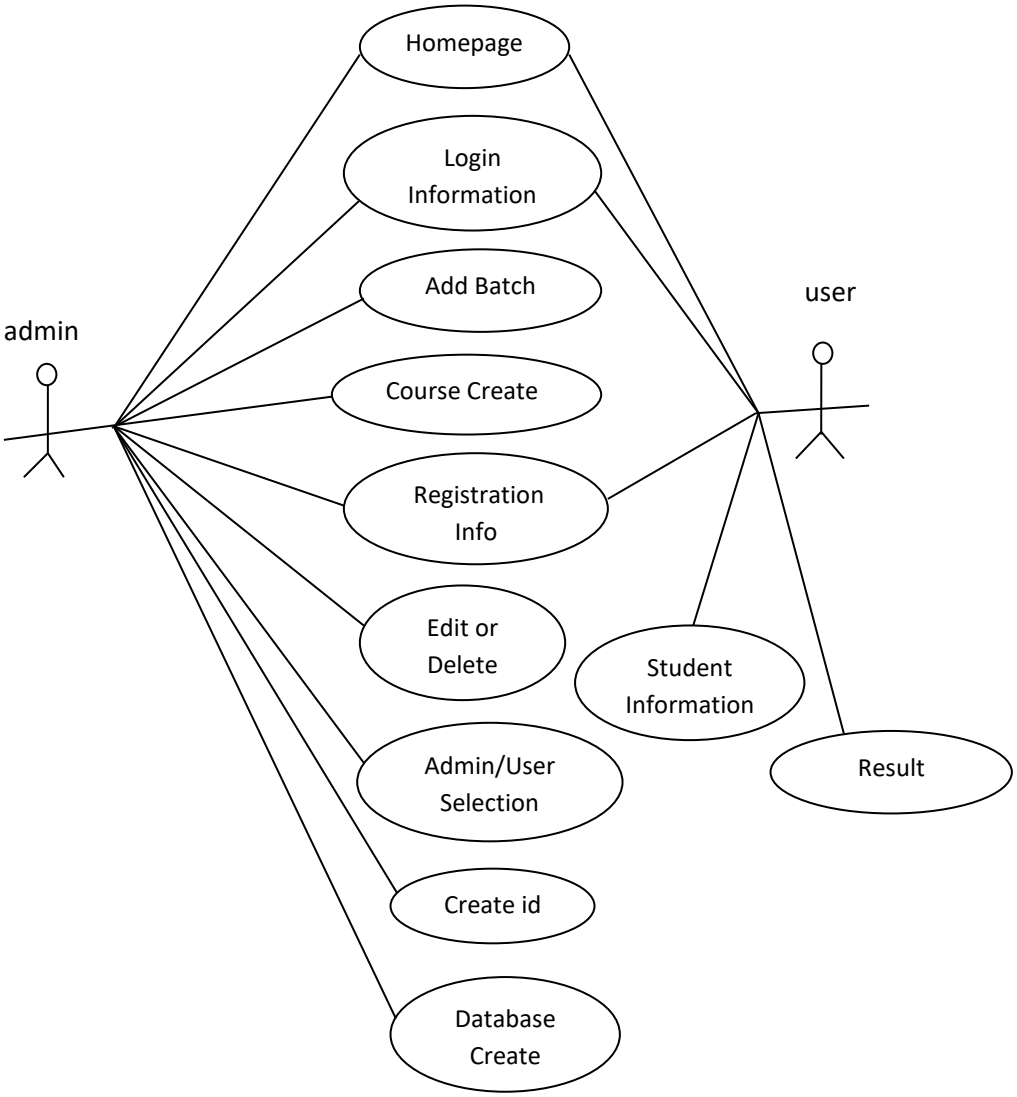


Figure: Use Case Diagram of Student Information and Maintaining System

3.3. Activity Diagram

Activity diagram shows the flow of how a system works. Activity diagram of our project is given below-

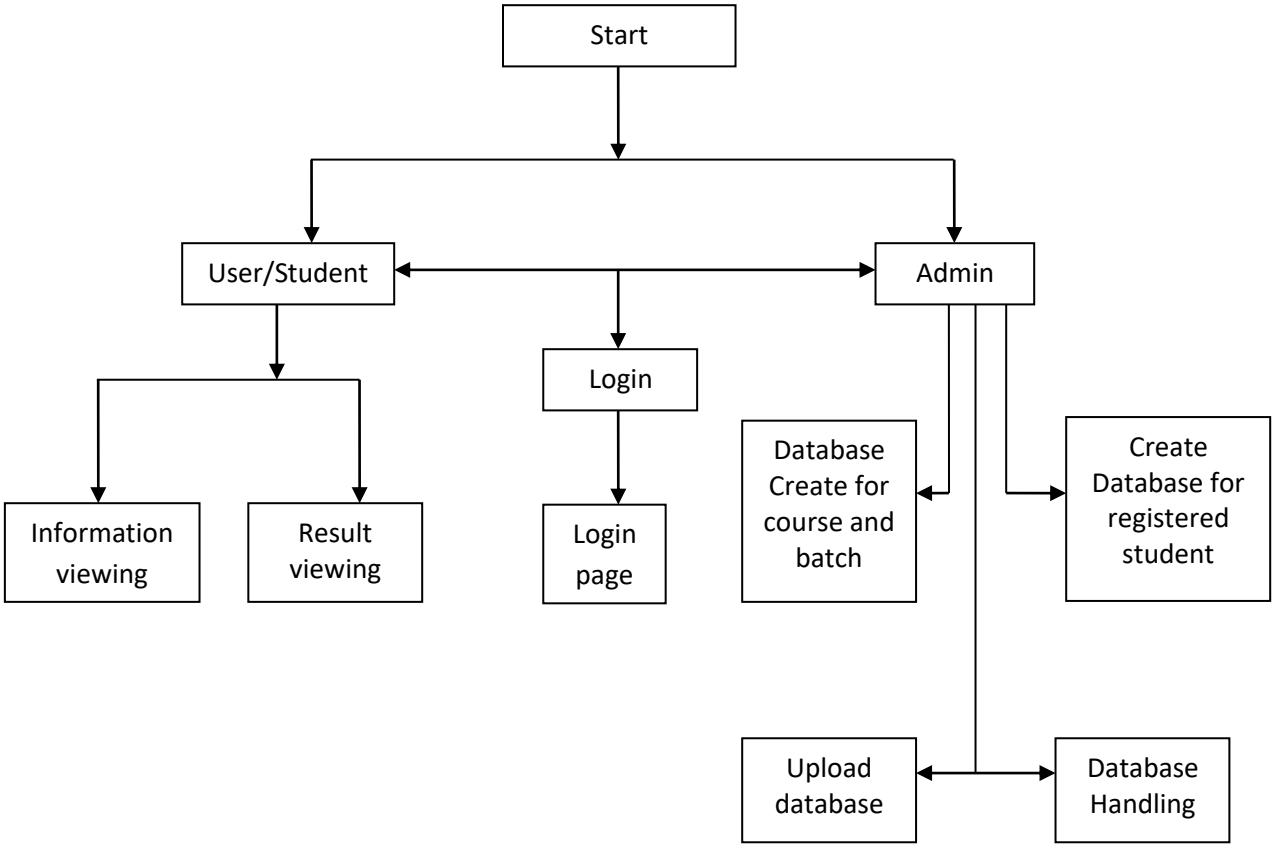


Figure: Activity Diagram of Student Information and Maintaining System

3.4. Entity-Relationship Diagram

Entity-Relationship Diagram is used to show the relation between the entities used. We used several entities to build our project. Those ares-

- User Entity: Used for storing the information of users.
- Admin Entity: Used for storing the information of admin.
- Batch Entity: Used for storing the information of batches.
- Course Entity: Used for storing the information of courses.
- Registration Entity: Used for storing the information of Registration.

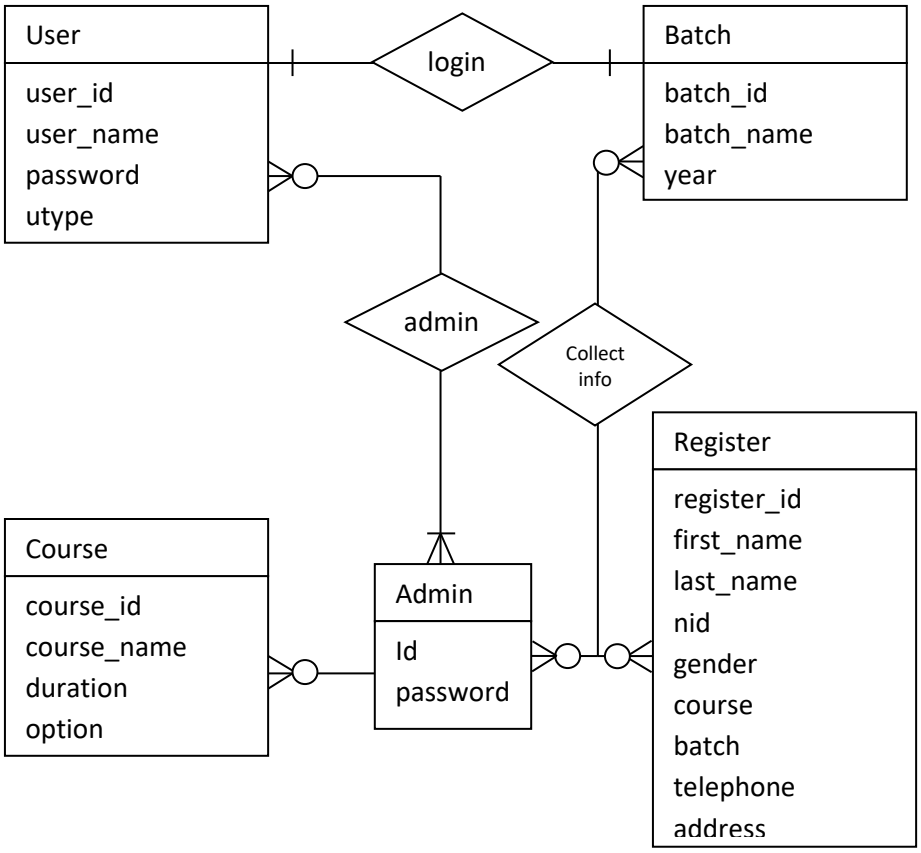


Figure: Entity-Relationship (ER) Diagram of Student Information and Maintaining System

3.5. Development Process

To develop this project we used different kinds of processes. Some of those main processes are shortly described here-

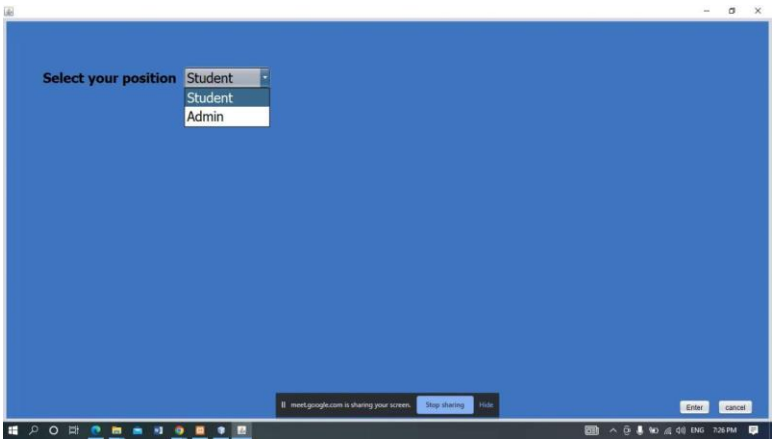
- **Agile Method:** To develop this project we used Agile software development method. Agile software development methodology is one of the simplest and effective processes to turn a vision for a software solution. Agile is a term used to describe software development approaches that employ continual planning, learning, improvement, team collaboration, evolutionary development, and early delivery. It encourages flexible responses to change. In this project we used processes of agile method including:
    - Requirement gathering
    - Requirement analysis
    - Requirement elicitation
    - Implementation

- **Software Testing:** To test this project we used two types of software testing, namely-
    - Unit Testing: We tested each part or functionalities of the project individually. According to the results of the testing, our project evolved towards our objectives.
    - Acceptance Testing: We used alpha testing as project for acceptance testing.

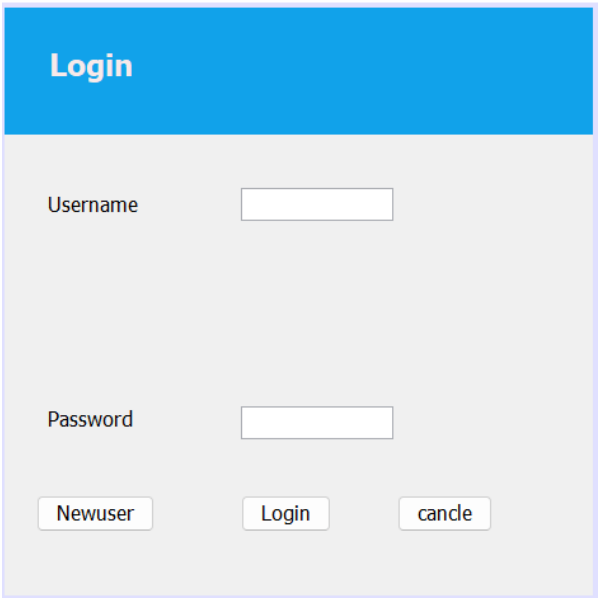
4. Project Output

Since we have limited space here we cannot show all of the output of our project except a selected few as highlight. These ares-

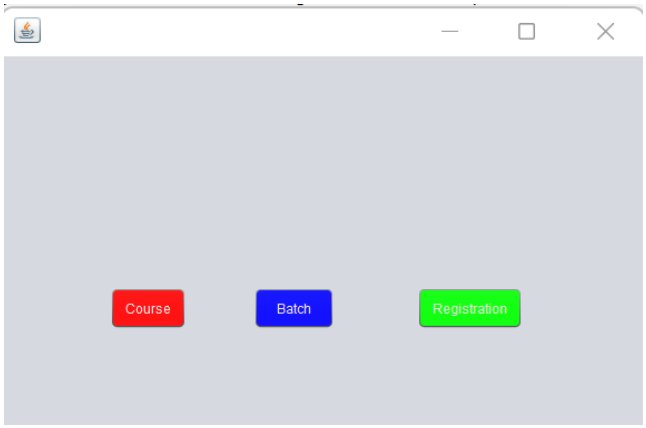
4.1. Through this page we should select types of user.



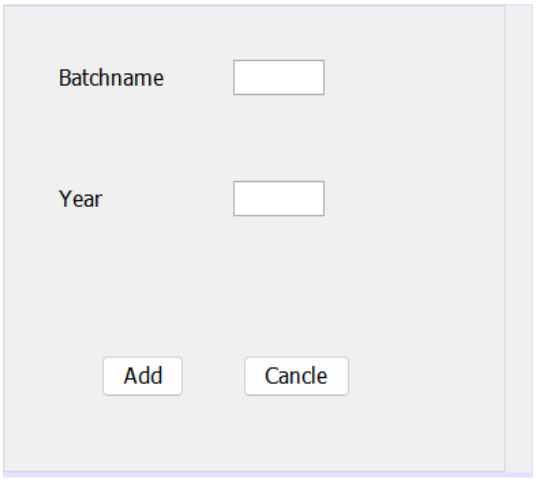
4.2. After selecting admin option this page will show. Through this page admin can log in to the database by giving required information



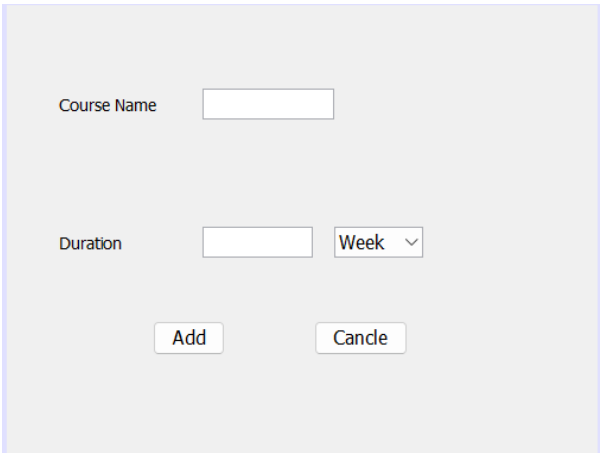
4.3. Through this page admin can select batch, course and registration option.



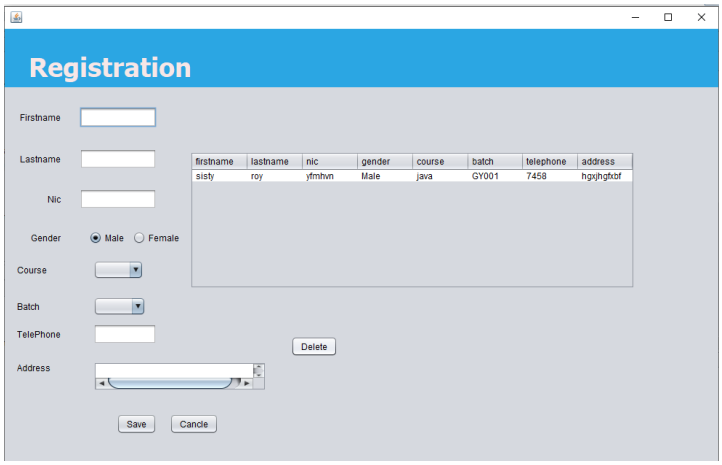
4.4. Through this page by giving required information admin can add batch information.



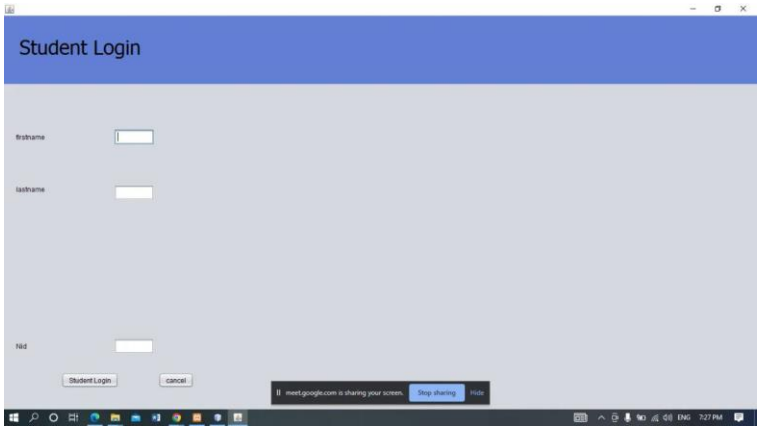
4.5. Through this page by giving required information admin can add course information.



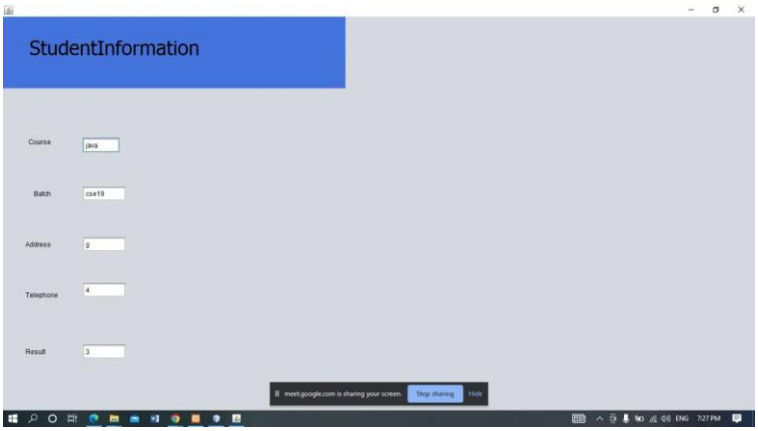
4.6. Through this page by giving required information user or admin can add student's personal information and also delete information.



4.7. After selecting student option this page will show. Through this page student can log in to the database by giving required information



4.8. After giving required login information student can see their personal information and result.



5. Conclusion

Student Information and Maintaining System is a project that we have created to provide convenience to the administrator of any educational institutions. They can easily stored batch, course and personal information of every student and student can also see their personal information and result. As digitalization in every aspect is wanted, and manually data collection is quite difficult and time consuming, that's why administrator and student both will be benefitted by this application.

5.1. Constraints and Challenges

First of all it was a good experience creates in this project. We also face some challenges and constraints completing this project because of few circumstances

- Every user must be comfortable using computer.
- All operations are in English so user must have basic knowledge of English.
- Collecting data about different batch, course and students information was a great challenge for us.

5.2. Limitations and Future Scope

There are some limitations in this project.

- Lack of data: As we are only a group of three peers, it was hard for us to collect the massive amount of data about student. So we opted to collect a few data about students.
- Database updating: Only admin can add users, admin can only delete or update database.
- In future, we want to add some feature for student such as notification module, enrollment system etc.

6. References

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