INSTITUTE FOR ADVANCED COMPUTING AND SOFTWARE DEVELOPMENT AKURDI, PUNE

Documentation On

"ClassConnect"

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Submitted By

Group No: 65

Roll No.	**Name:**
233235	**Anupam Zope**
233141	**Rahul Badhe**

Mr. Rohit Puranik
Centre Coordinator

Ms. Manjiri Deshpande
Project Guide

ABSTRACT

The ClassConnect Application is an innovative solution designed to seamlessly connect students with qualified tutors. This user-friendly application offers a comprehensive platform for students to explore a wide range of academic subjects and find tutors who specialize in their desired areas. Through advanced search filters and personalized profiles, the application streamlines the tutor selection process, ensuring optimal compatibility and learningoutcomes.

ACKNOWLEDGEMENT

I take this occasion to thank God, almighty for blessing us with his grace and taking our endeavor to a successful culmination. I extend my sincere and heartfelt thanks to our esteemed guide, **Ms. Manjiri Deshpande** for providing me with the right guidance and advice at the crucial junctures and for showing me the right way. I extend my sincere thanks to our respected **Centre Co-Ordinator Mr. Rohit Puranik**, for allowing us to use the facilities available. I would like to thank the other faculty members also, at this occasion. Last but not the least, I would like to thank my friends and family for the support and encouragement they have given me during the course of our work.

Anupam Zope (233235)

Rahul Badhe (233141)

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1. INTRODUCTION

The "ClassConnect" report introduces a comprehensive exploration of a groundbreaking applicationdesigned to revolutionize the way students and tutors connect. In today's dynamic educational landscape, the need for personalized learning experiences is more pronounced than ever. This reportdelves into the development, features, and impact of the ClassConnect application. By seamlessly bridging the gap between students seeking academic assistance and qualified tutors, this application reimagines traditional tutoring methods. The report delves into the platform's advanced search algorithms, user-friendly interface, and its potential to enhance the overall education ecosystem.

Through this in-depth analysis, we uncover how ClassConnect is poised to reshape the way knowledgeis shared and acquired.

1.1 PURPOSE

The purpose of the "ClassConnect" application is to serve as a valuable tool, facilitating students and parents in their search for private tutors through an engaging and interactive platform. This app is designed to seamlessly complement students' endeavors in locating tutors who align with their specific needs and preferences. By leveraging technology, the application simplifies the process of connecting with suitable educators, enhancing the overall educational experience. With a user-friendly interface and advanced search features, the "ClassConnect" app aims to bridge the gap between learners and tutors, fostering a more efficient and effective learning journey.

1.2 PROBLEM STATEMENT

The core objective of this project centers on crafting a dynamic software application catering to both students and teachers. This web-based platform boasts global accessibility, ensuring users worldwide can engage seamlessly. Functioning as an online interface, the system caters to students, parents, and teachers, each equipped with personalized logins to enhance their experience. By harnessing this technology, the application enriches user engagement and service delivery, fostering an optimal environment for efficient tutor-student connections and transformative educational interactions.

1.3 PROJECT SCOPE

It is not possible to develop a system that makes all the requirements of the user. User requirements keep changing as the system is being used. Some of the future enhancements that can be done to this system are:

- As the technology emerges, it is possible to upgrade the system and can be adaptable to desired environment.
- Because it is based on object-oriented design, any further changes can be easily adaptable
- Based on the future security issues, security can be improved using emerging technologies.

1.4 PROJECT OBJECTIVE

The primary objectives of the "ClassConnect" software project revolve around the creation of auser-friendly web-based application that seamlessly connects students with appropriate tutors. This involves implementing advanced algorithms to match students with tutors based on their specific academic needs and availability. The project aims to provide a secure environment where tutors can showcase their expertise through detailed profiles, allowing students to make well-informed decisions by accessing transparent feedback and ratings. By incorporating efficient scheduling tools and secure communication channels, the project seeks to simplify theprocess of selecting tutors.

1.5 STUDY OF THE SYSTEM

1.5.1 MODULES:

The system after careful analysis has been identified to be presented with the following modulesand roles.

The modules involved are:

- Admin
- Student
- Tutor

1.5.1.1 Admin:

The admin is the super user of this application. Only admin have access into this adminpage.

- The system will allow the admin to select, add, delete,update students and tutor.
- The system will allow the admin to select "students, tutors" and check their details.
- The system will allow admin to select, add, delete,update events.
- The system will allow the admin to view the list of students and tutors.

1.5.1.2 Student

- The system will allow the students to enter the firstName,LastName, Email, Phone no, Password, Branch etc.
- The system will allow the students see current and future events.

1.5.1.3 tutor

- The system will allow the Alumni to enter the Name, Email, Phone no, Password etc.
- The system will allow the students see current and future events.

2. OVERALL DESCRIPTION

The ClassConnect Application serves as a comprehensive platform to connect students seeking academic assistance with qualified tutors. In the journey from academia to the professional world, higher education plays a pivotal role. Recognizing this, our application aims to bridge the gap by providing a seamless means for students to find suitable tutors who can guide them towards their educational and career aspirations. Unlike traditional methods, where personal connections dominate, this platform enhances accessibility and efficiency in the tutor-student matching process.

2.1 EXISTING SYSTEM

In the existing system, the process of finding suitable tutors is often fragmented and time- consuming. Students rely on word-of-mouth, advertisements, or limited institutional resourcesto connect with tutors. This lack of centralized information and streamlined access leads to inefficiencies and mismatched tutoring experiences.

2.2 PROPOSED SYSTEM

The proposed system, our ClassConnect Application, revolutionizes the tutoring landscape. It introduces a comprehensive, web-based platform that seamlessly connects students with qualified tutors. Through advanced search algorithms and personalized profiles, the application simplifies the tutor discovery process. This system offers a user-friendly interface accessible globally, ensuring efficient and tailored tutor selection for optimal learning outcomes.

3. REQUIREMENTS SPECIFICATION

3.1 INTERFACE REQUIREMENTS

Various interfaces for the product could be –

1. Login page

2. Registration form

3. There will be a screen displaying information about events organized by admin.

3.1.1 SOFTWARE INTERFACE

1. Operating System: Windows 10 which supports networking.

2. Java development toolkit.

3.1.2 HARDWARE INTERFACE

Hardware requirements for insurance on internet will be same for both parties which are as follows:

- Processor - Quad Core
- RAM - 8 GB
- Hard Disk – 1 TB
- NIC – For each party 4.3 Communication Interface

3.2 FUNCTIONAL REQUIREMENTS

This section provides requirement overview of the system. Various functional modules that can be implemented by the system will be- Description

3.2.1 Registration: If Students and tutor wants to see the details about upcoming events organized by admin then he/she must be registered, unregistered user can't see the upcoming events details.

3.2.2 Login: Students logins to the system by entering valid user id and password for the seeing the events and job added by tutor and admin.

3.3.3 Logout: After seeing the job the student has to logout

3.3 NON-FUNCTIONAL REQUIREMENTS

Following non-functional requirements will be there in the insurance to the internet:

(i) Secure access to consumer's confidential data.

(ii) 24X7 availability.

(iii) Better component design to get better performance at peak time.

(iv) Flexible service-based architecture will be highly desirable for future extension.

(v) Nonfunctional requirements define system properties and constraints.

Various other nonfunctional requirements are:

- ➢ Security
- ➢ Reliability
- ➢ Maintainability
- ➢ Portability
- ➢ Extensibility

- ➢ Reusability
- ➢ Compatibility
- ➢ Resource Utilization

4. SYSTEM DIAGRAM

4.1 ACTIVITY DIAGRAM

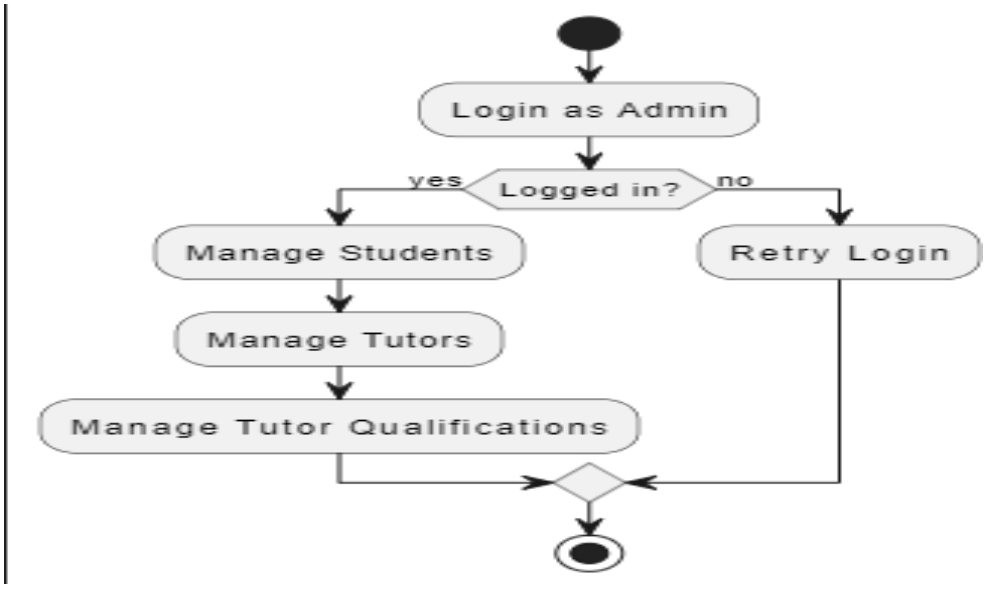


Fig.1: Admin Activity diagram

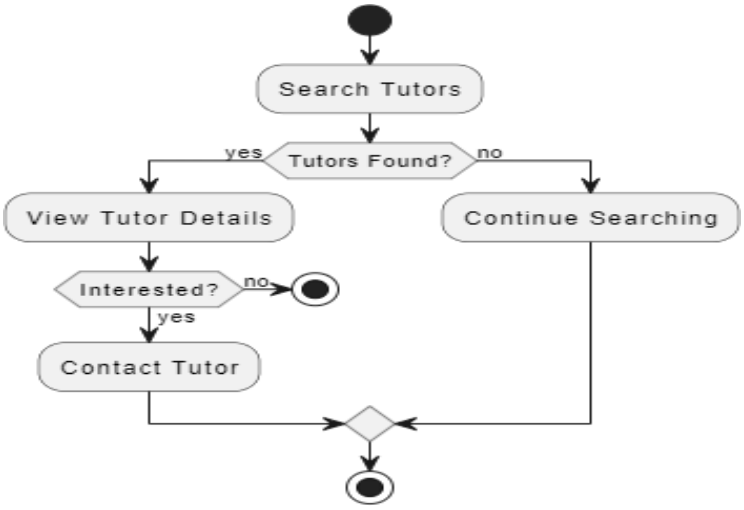


Fig.2: student Activity diagram

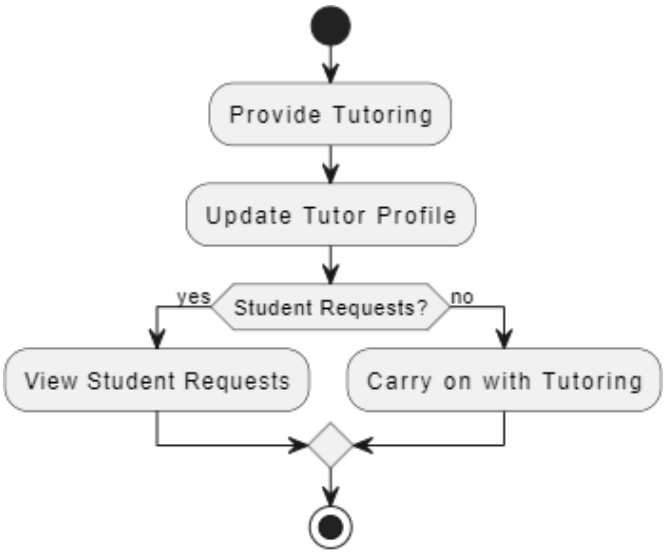


Fig.3: tutor Activity diagram

4.2 DATA FLOW DIAGRAM

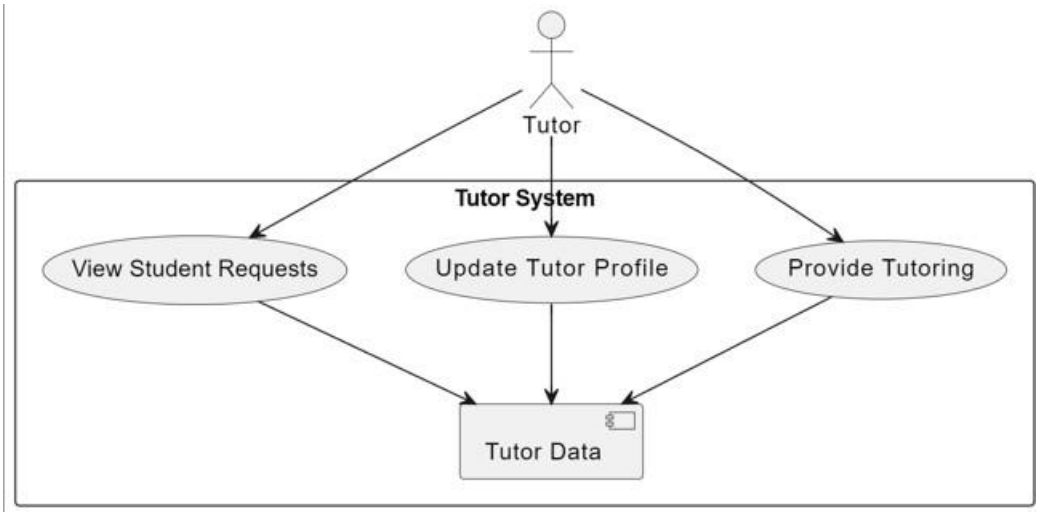


Fig.4: Tutor Dataflow diagram

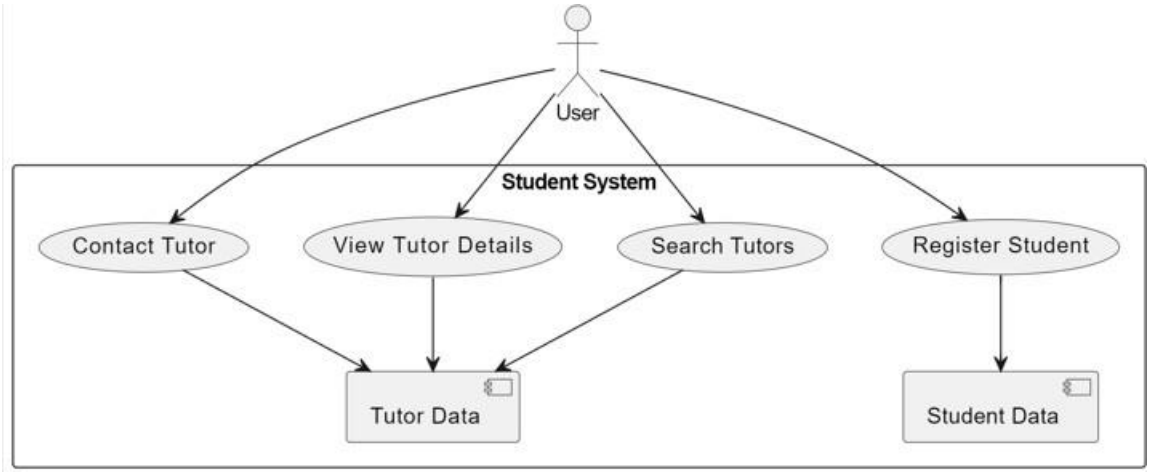


Fig.5: Student Dataflow diagram

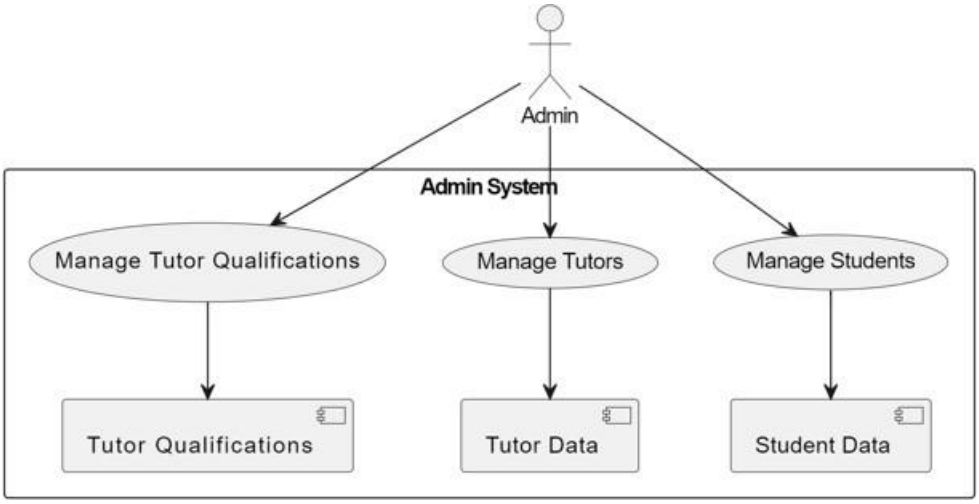


Fig.6: Admin Dataflow diagram

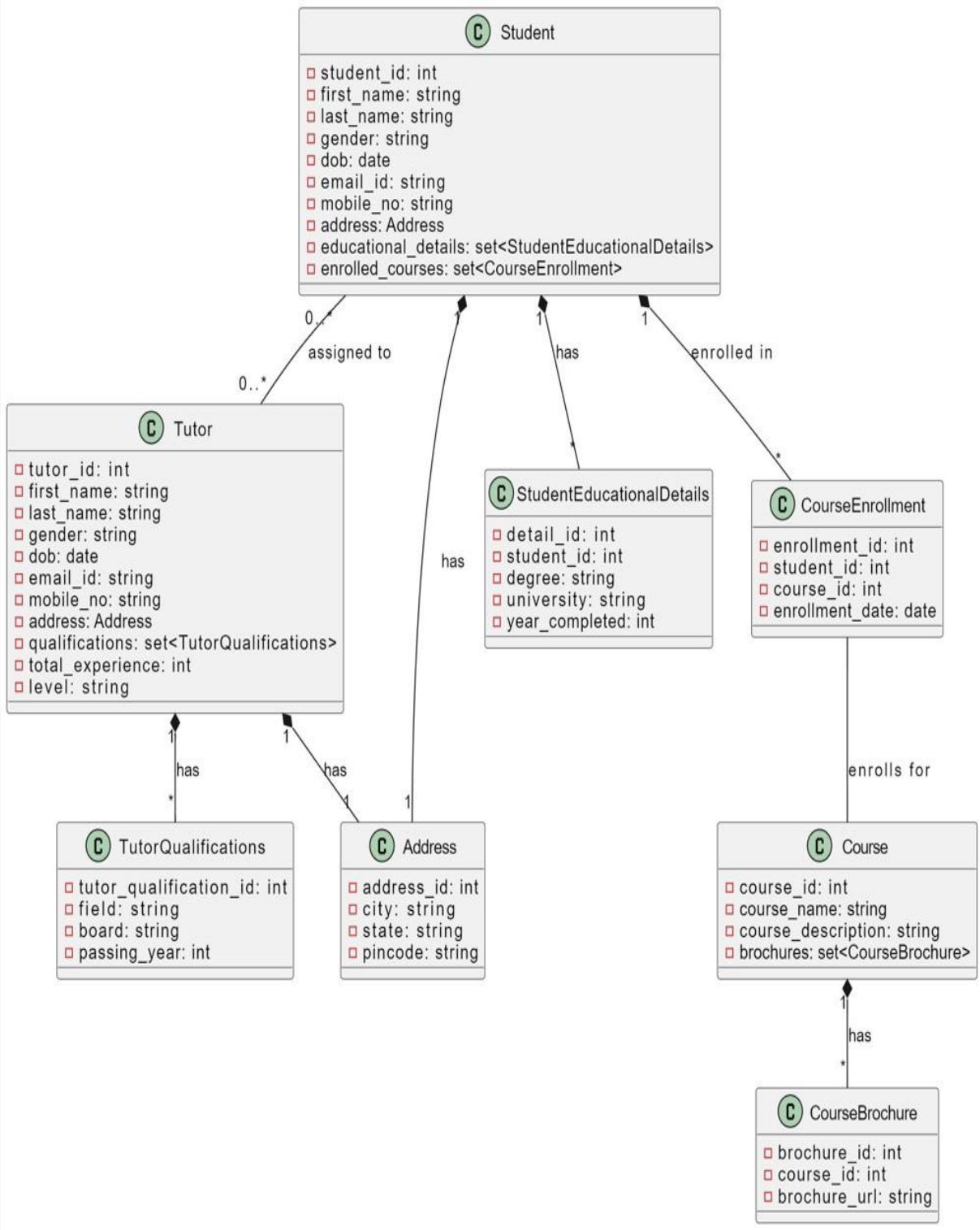


Fig.7: Class diagram

4.4 USE CASE DIAGRAM

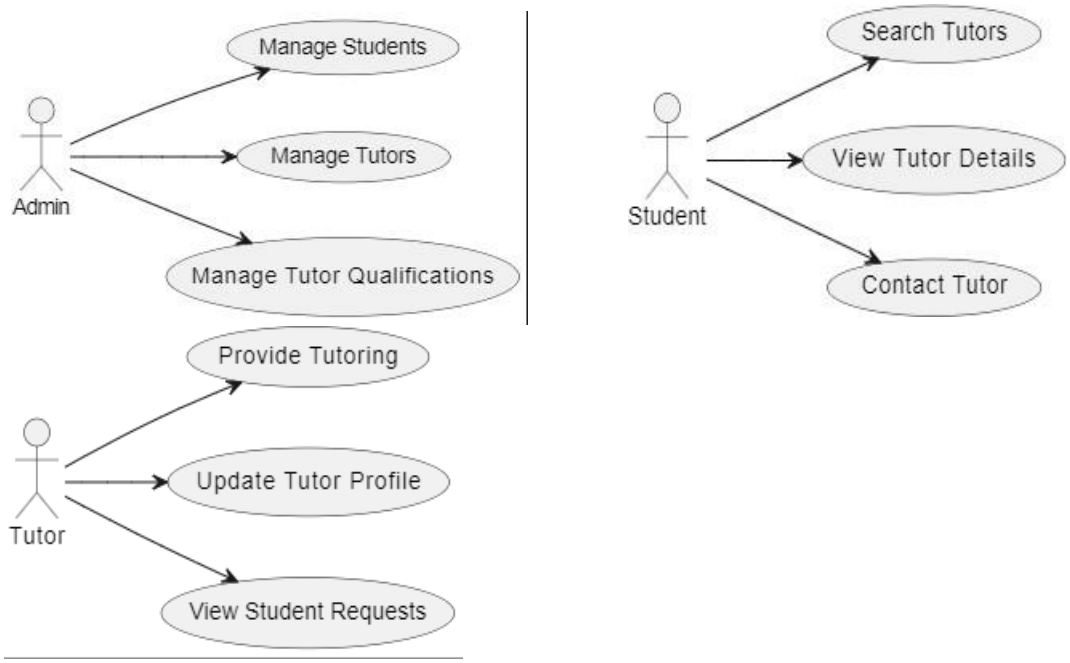


Fig.8: Use Case diagram

4.5 ER DIAGRAM

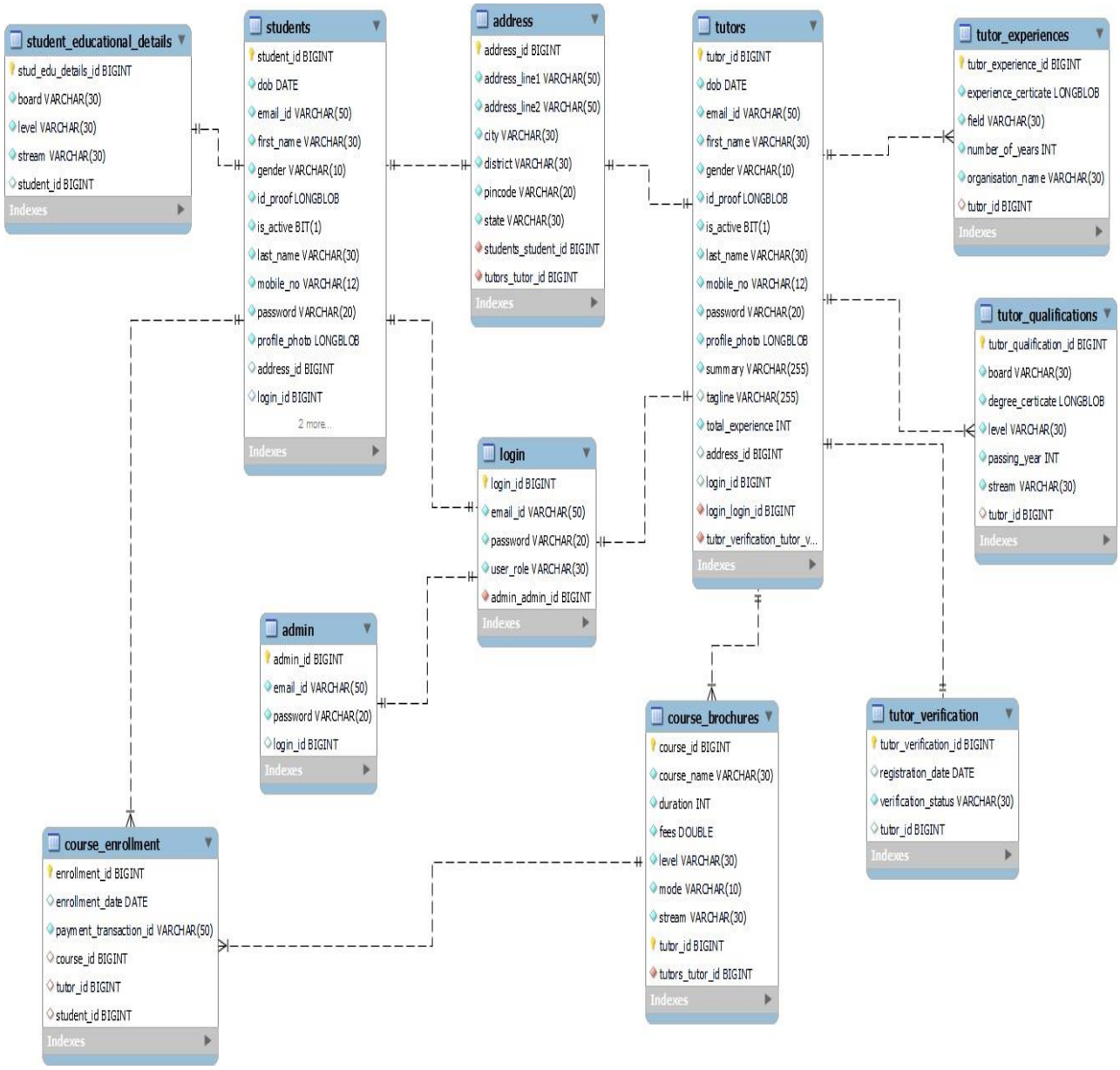


Fig.9: ER diagram

5. TABLE STRUCTURE

Tables:

```
mysql> show tables;
+----------------------------+
| Tables_in_classconnect     |
+----------------------------+
| address                    |
| admin                      |
| course_brochures           |
| course_enrollment          |
| hibernate_sequence         |
| login                      |
| student_educational_details |
| students                   |
| token                      |
| tutor_experiences          |
| tutor_qualifications       |
| tutor_verification         |
| tutors                     |
+----------------------------+
13 rows in set (0.05 sec)
```

Student table

```
ysql> select * from students;
+------------+------------+-----------------+------------+--------+-----------+-----------+------------+--------------------------------------------------------------+------------+----------+
| student_id | dob        | email_id        | first_name | gender | is_active | last_name | mobile_no  | password                                                     | address_id | login_id |
+------------+------------+-----------------+------------+--------+-----------+-----------+------------+--------------------------------------------------------------+------------+----------+
|          1 | 2000-12-29 | anupam@gmail.com | anupan     |        | 0x01      | zope      | 7894563210 | $2a$10$lazcXl6YzKxpeDz3VP8OJeZqFSxC.nO1dO5jMj51Lj4eCeUy8Rpvu |          1 |        1 |
|          2 | 1999-12-26 | rahul@gmail.com  | rahul      |        | 0x01      | badhe     | 8798545623 | $2a$10$fTsfQ.1gWTUuikk.162cdeGM87dI4sS0YQwM1WwmDvoxyafwkQ3k. |          3 |        4 |
|          3 | 2001-01-01 | akash@gmail.com  | akash      |        | 0x01      | patil     | 5462137890 | $2a$10$znc8mIXvl7pwjJra8X4tCesjjnFiJjaR/eTCDExYsUI50LvbFyWMS |          5 |        6 |
|          4 | 1996-02-21 | vinayk@gmail.com | Vinayk     |        | 0x01      | l         | 789654235  | $2a$10$.REiNzD/49q1uOzSck5iMO7hJCwjoi1AnfbBKTBMPOp8xRAU5huyS |          6 |        7 |
|          5 | 1999-12-06 | kalpesh@gmail.com | kalpesh    |        | 0x01      | sapkale   | 658732515  | $2a$10$I/GBM.z4XhUKQAu6xLQl4.ms8OY0EKWO/7tWDgX5S9ZJ9NiCt7LXy |          7 |        8 |
+------------+------------+-----------------+------------+--------+-----------+-----------+------------+--------------------------------------------------------------+------------+----------+
 rows in set (0.00 sec)
```

Tutors Table

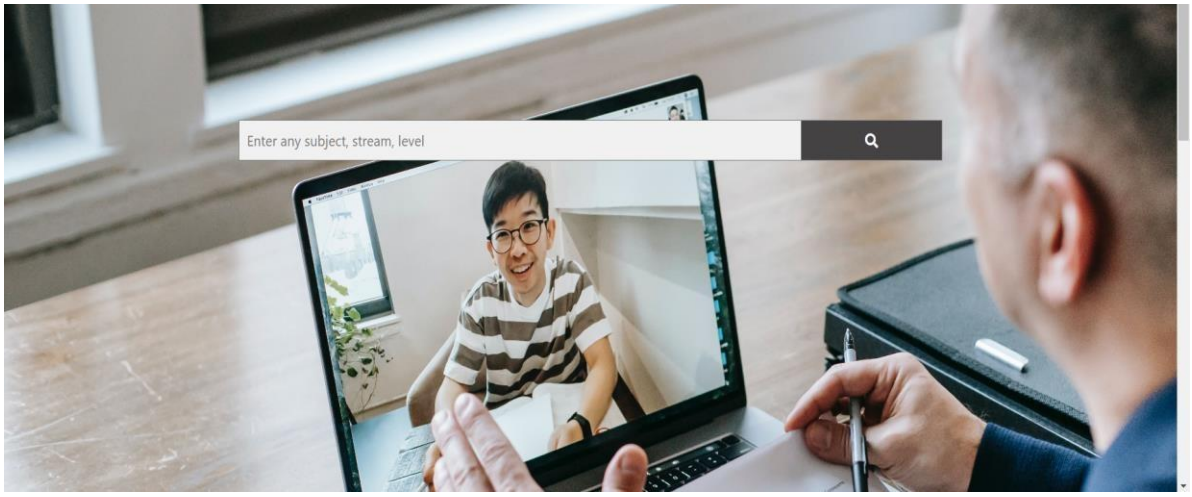
```
mysql> select * from tutors;
+----------+------------+----------------+------------+--------+-----------+-----------+------------+--------------------------------------------------------------+-------------------+-------------------+------------------+------------+----------+
| tutor_id | dob        | email_id       | first_name | gender | is_active | last_name | mobile_no  | password                                                     | summary           | tagline           | total_experience | address_id | login_id |
+----------+------------+----------------+------------+--------+-----------+-----------+------------+--------------------------------------------------------------+-------------------+-------------------+------------------+------------+----------+
|        1 | 1985-05-21 | gopal@gmail.com | gopal      | Male   | 0x01      | patil     | 7859451236 | $2a$10$thtAuZB20cZxVM.xWd3BE.VEfRGHMHilTTXmPfrlNOPgo91sCGc3m | Full Stack Developer | Full Stack Developer |               12 |          2 |        2 |
|        2 | 1988-11-30 | rupesh@gmail.com | rupesh     | Male   | 0x01      | supe      | 7856458932 | $2a$10$QP0lBTSTc1VETpLs5/YLOeIvtsZ2GD04gNhoAtz6wNhDs4ov4a7Bu | Civil Engineer    | Civil Engineer    |               10 |          4 |        5 |
|        3 | 1988-12-29 | komal@gmail.com | Komal      | Female | 0x01      | komal     | 7891234568 | $2a$10$lXBS9PXGQwVmW4Iq7kODG.VWxkY8I59tD1S6lWuRUajjsBcmjuPfW | MEAN stack developer | MEAN stack developer |                9 |         12 |        9 |
+----------+------------+----------------+------------+--------+-----------+-----------+------------+--------------------------------------------------------------+-------------------+-------------------+------------------+------------+----------+
3 rows in set (0.00 sec)

mysql>
```

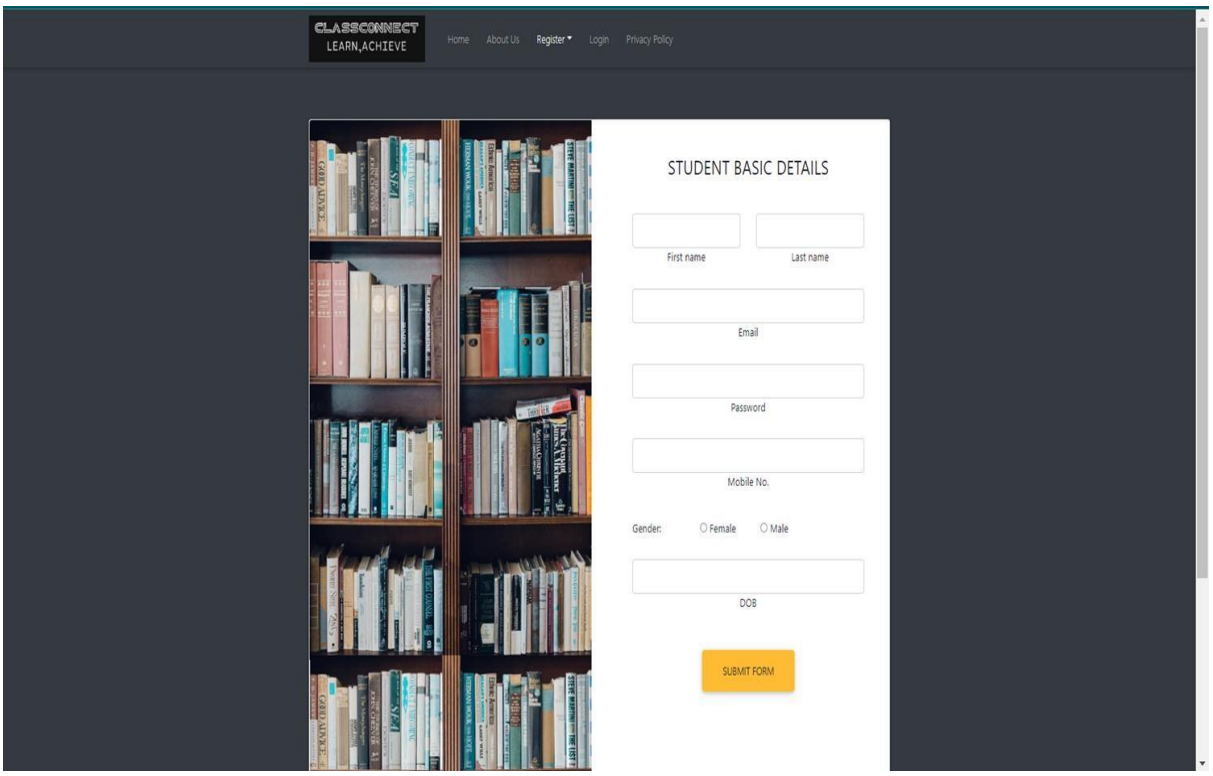
Admin table

```
mysql> ^C
mysql> select * from admin;
+----------+------------+-----------------+------------+--------+-----------+-----------+------------+----------+----------+
| admin_id | dob        | email_id        | first_name | gender | is_active | last_name | mobile_no  | password | login_id |
+----------+------------+-----------------+------------+--------+-----------+-----------+------------+----------+----------+
|        1 | 1990-08-27 | admin@gamil.com | admin      | Male   | 0x01      | admin     | 796512358  | 12345    |        3 |
+----------+------------+-----------------+------------+--------+-----------+-----------+------------+----------+----------+
1 row in set (0.00 sec)
```

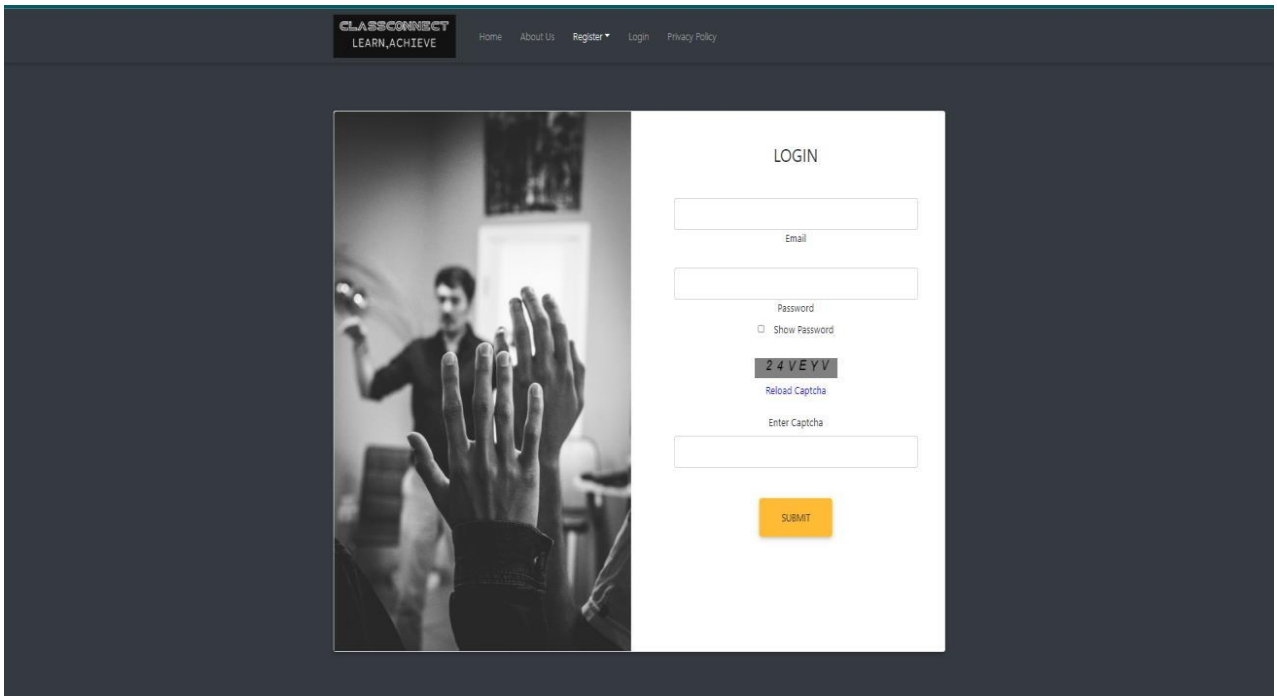
6. PROJECT PHOTOS



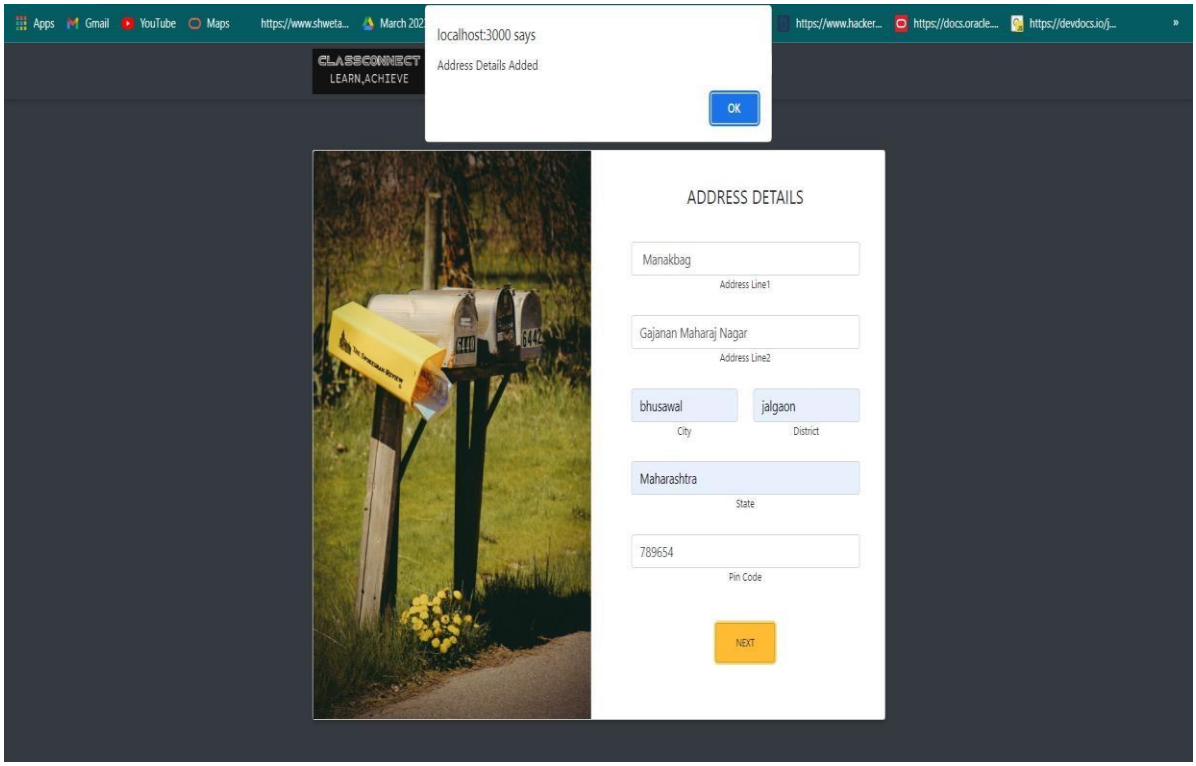
6.1 Home Page



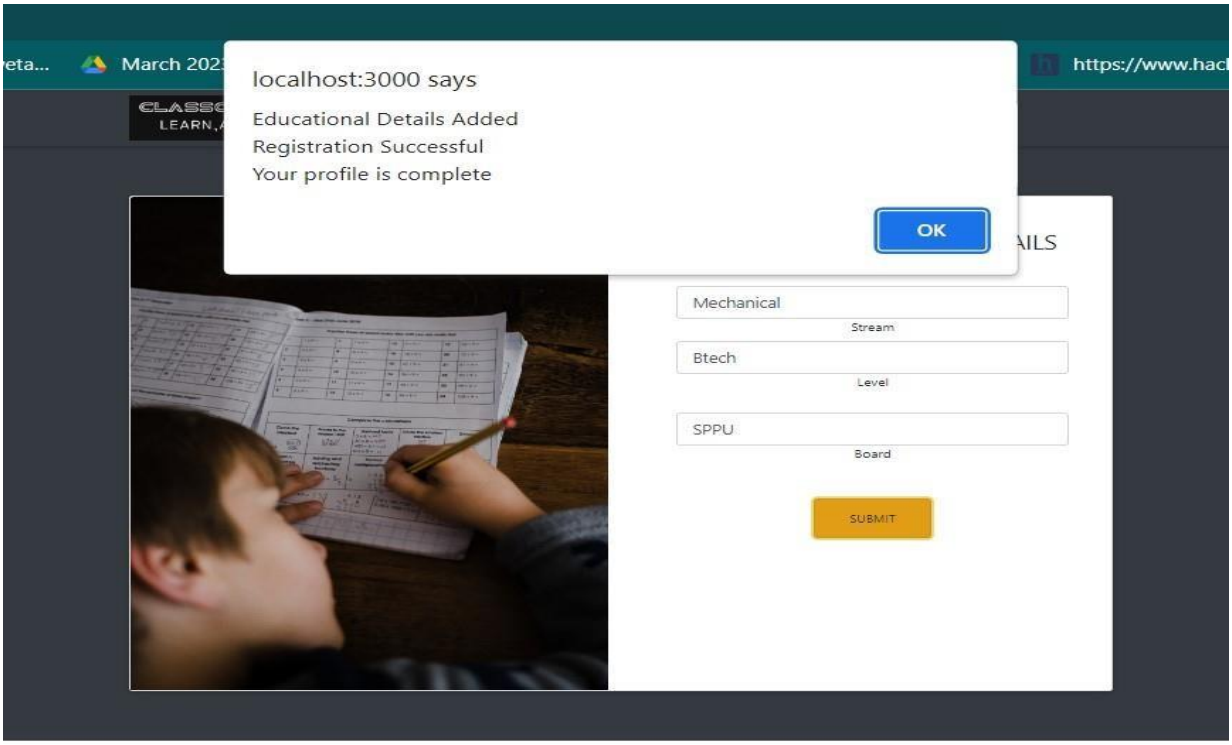
6.2 Student-Registration Page



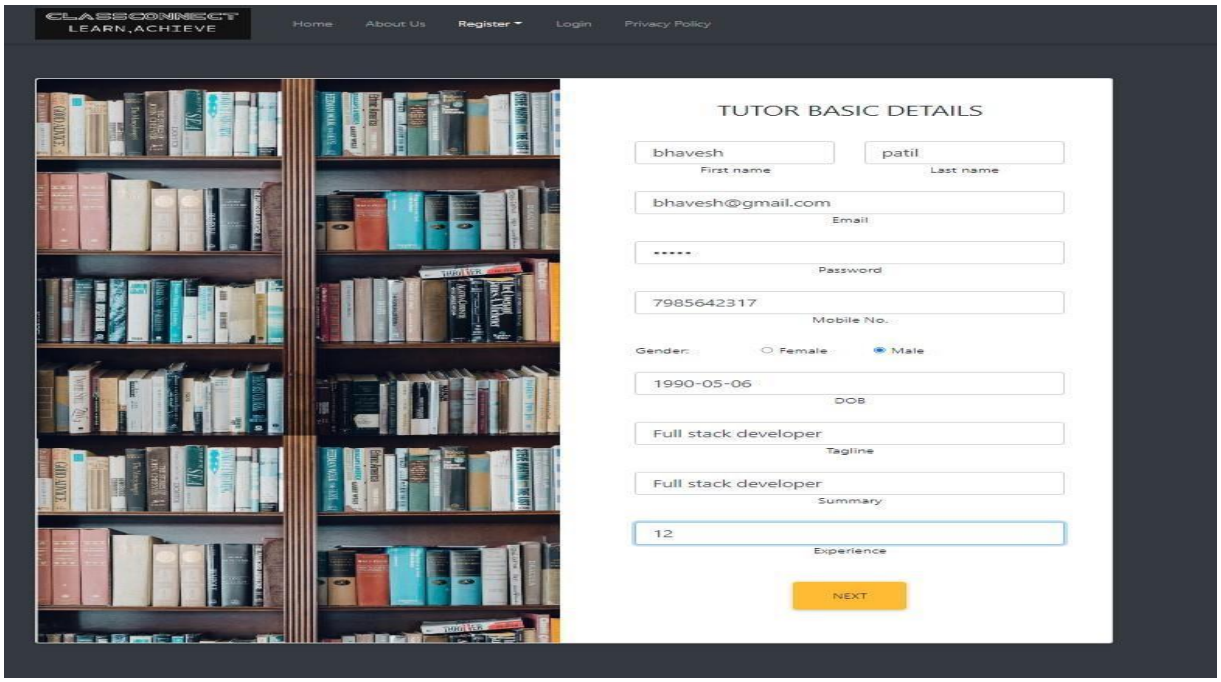
6.3 Login Page



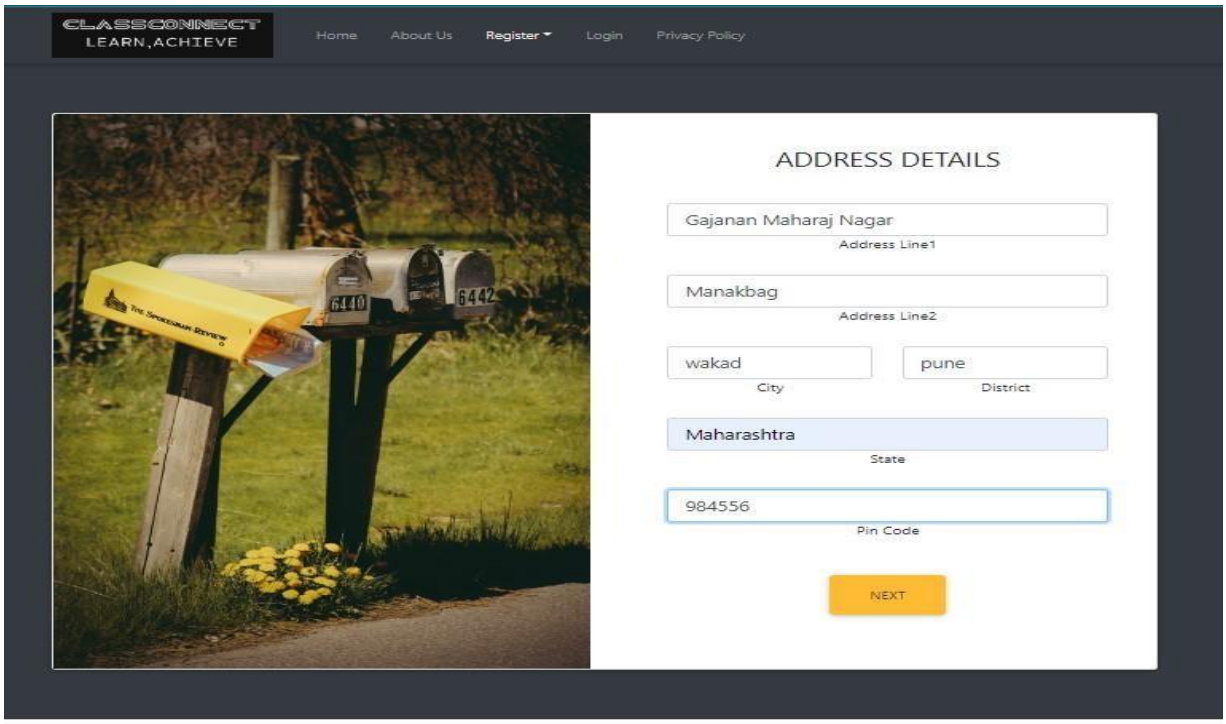
6.4 Student-address details



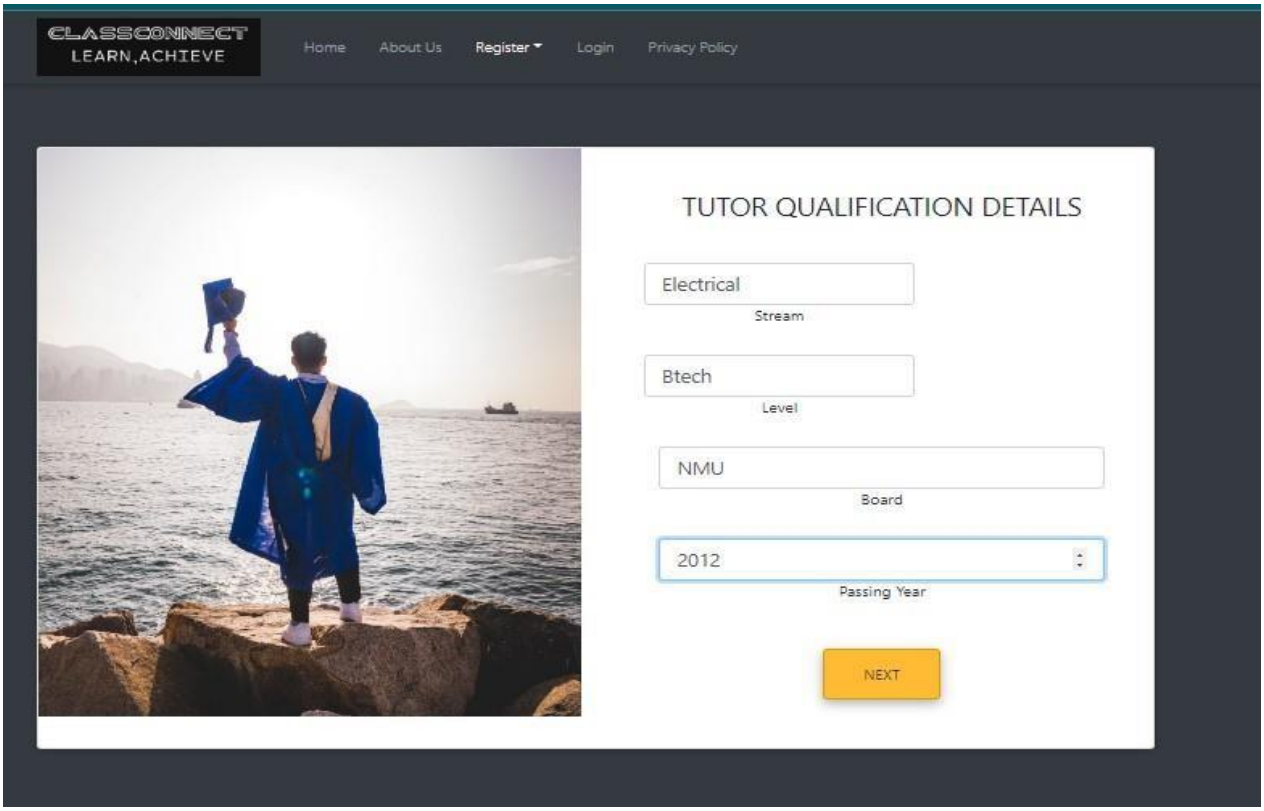
6.5 Student-Qualification Details



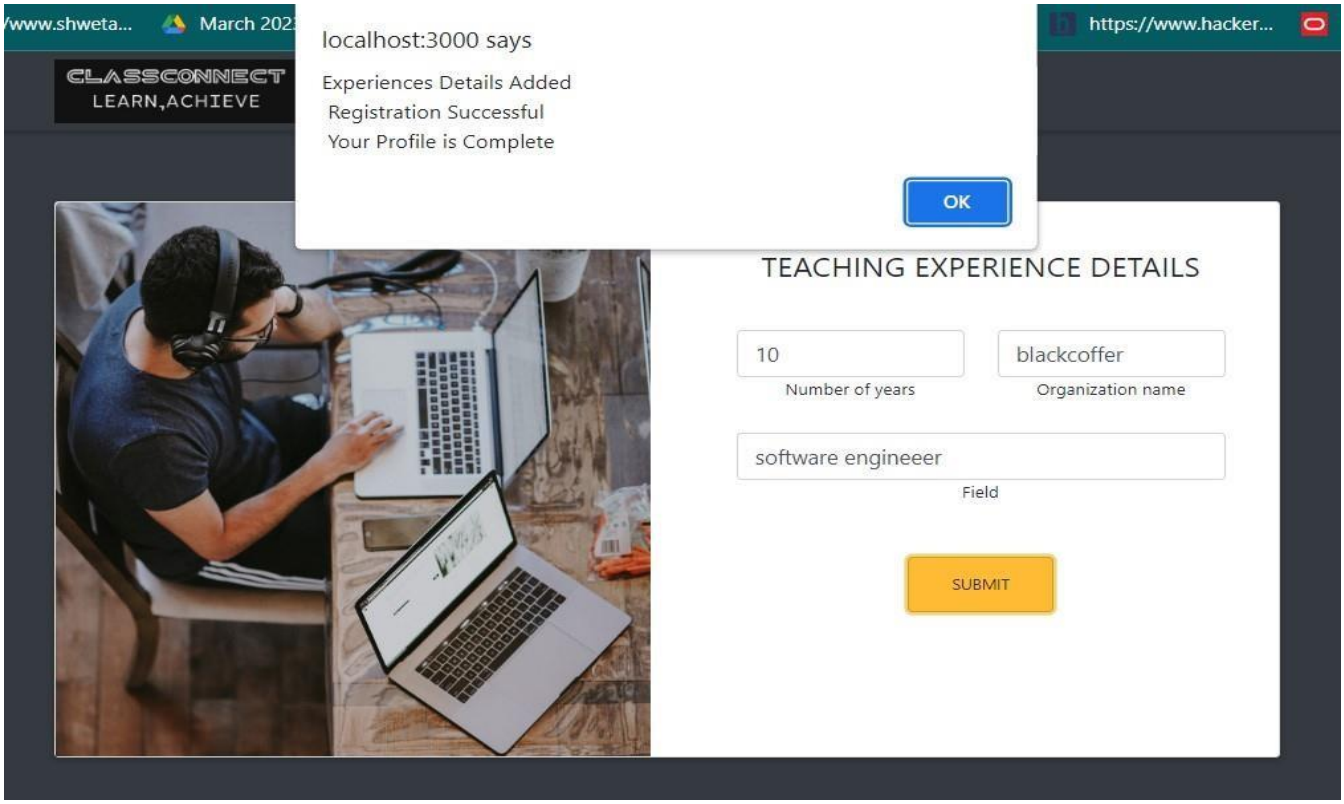
6.6 Tutor-Registration Page



6.7 Tutor-Address Details



6.8 Tutor Qualification Details



6.9 Tutor-Experience Details

6 CONCLUSION

1. In conclusion, our ClassConnect Application addresses the modern need for a convenient and effective way to connect students and tutors.
2. By leveraging technology, we've created a user-friendly platform that streamlines the process, making tutor selection personalized and efficient.
3. This application is not just a tool, but a transformative approach to education, enhancing the learning journey for students and opening up new opportunities for tutors.
4. Embracing innovation, we're proud to present a solution that bridges the gap and fosters knowledge exchange in a seamless and impactful manner.
5. The system will generate live Business Operations Statistics trends through customized dashboard for stakeholders.

7 REFERENCES

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[2] Complete CSS Guide, Maxine Sherrin and John Allsopp-O'ReillyMedia; September 2012

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