

Problem Statement

The traditional University model restricts the students and professor to take classes within the university. Being enrolled is not feasible for students from all around the world and limits the professor audience.

The operation cost of a physical university model is an expensive affair due to which most students are unable to attend the university. Additionally most of the students are unable to cover the hefty relocation charges to the location of the university.

Proposed Solution

To Create an Online Learning platform which enables students and professors from all around the world to connect virtually. The platform will significantly reduce the course fee since the fee is directly being paid to the professor. The model will give the full autonomy to the professor to manage the courses.

A professor can perform the following operations:

1. Add Courses.
2. Delete Course
3. Manage Course Prices.
4. Pay Platform fee.
5. Add Study Material

A Student can perform the following operations:

1. Login/Sign Up.
2. View available Courses
3. Register for the course.
4. View Study Material for a registered Course.
5. Provide Feedback for the course completed.
6. Get a Degree if completed required courses.

The above stated approach will significantly benefit the professor and students in the following ways:

1. Lower Course Prices for students.
2. Professor gets full autonomy over the course curriculum.
3. No Commute time.
4. No relocation for the students.

Architecture and Class Diagram for Professor as a Service

The below diagram depicts the various classes involved in Professor as a service model. The diagram showcases the various objects involved and their relationship.

The diagram also demonstrates the data flow between all the entities.

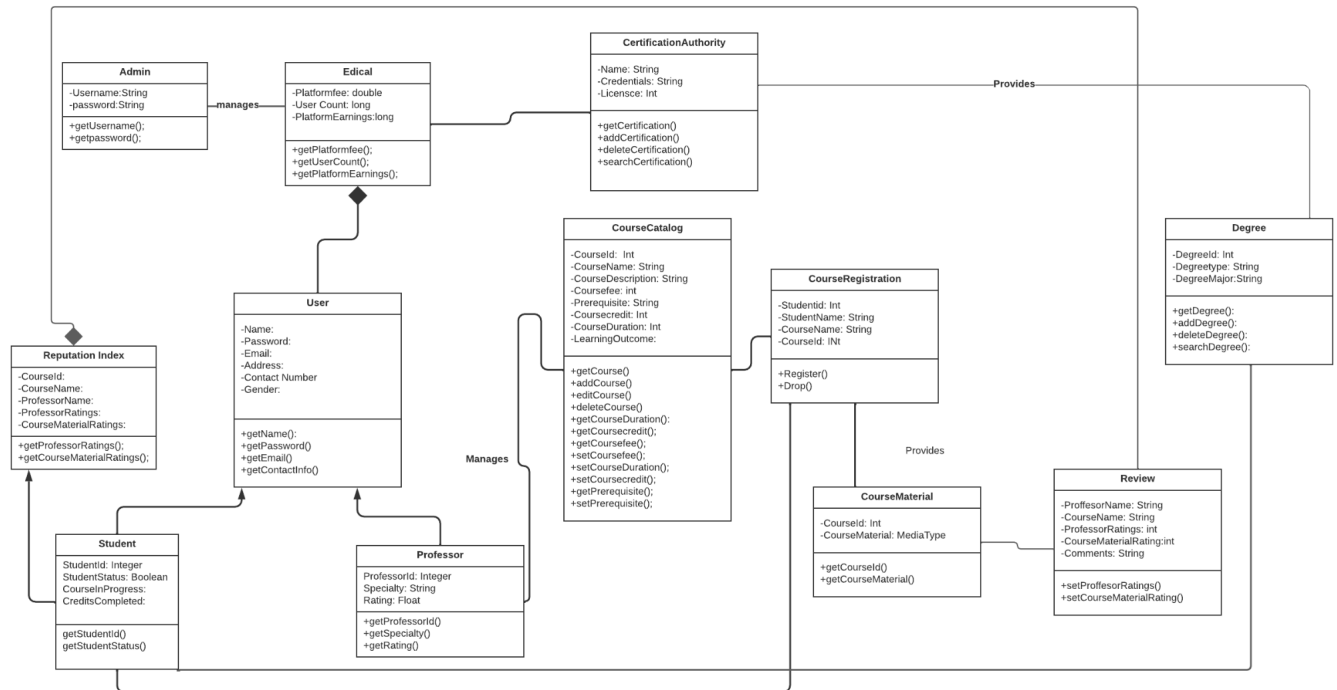


Figure 1: Architecture and Class Diagram

Difference between the traditional University model and the PaaS is as follows:

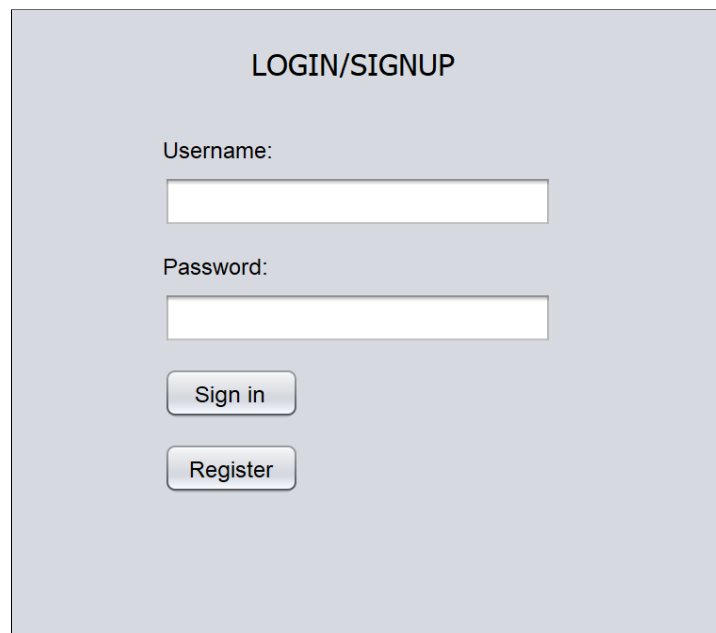
1. Education is accessible from all around the world.
2. Professor has full autonomy unlike the university model where the professor has to follow hierarchy.
3. The operation cost of PaaS is cheaper than the traditional University model.
4. Students can choose a professor from around the world unlike the university model where they are restricted with a list of choices provided by the university.
5. Students can view the reputation index and get the course and professor ratings before signing up for the courses.
6. Online courses would be more economical than attending a University.
7. The PaaS model will provide students the flexibility to take courses at any time of the day from anywhere across the globe, unlike the University model.
8. The PaaS model allows students to join the platform without going through an acceptance process.

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Date: March 5, 2022

Screen Designs

1. Login Screen



A login/signup screen with a light gray background. At the top center is the title "LOGIN/SIGNUP". Below it are two input fields: "Username:" and "Password:". Under the password field are two buttons: "Sign in" and "Register".

LOGIN/SIGNUP

Username:

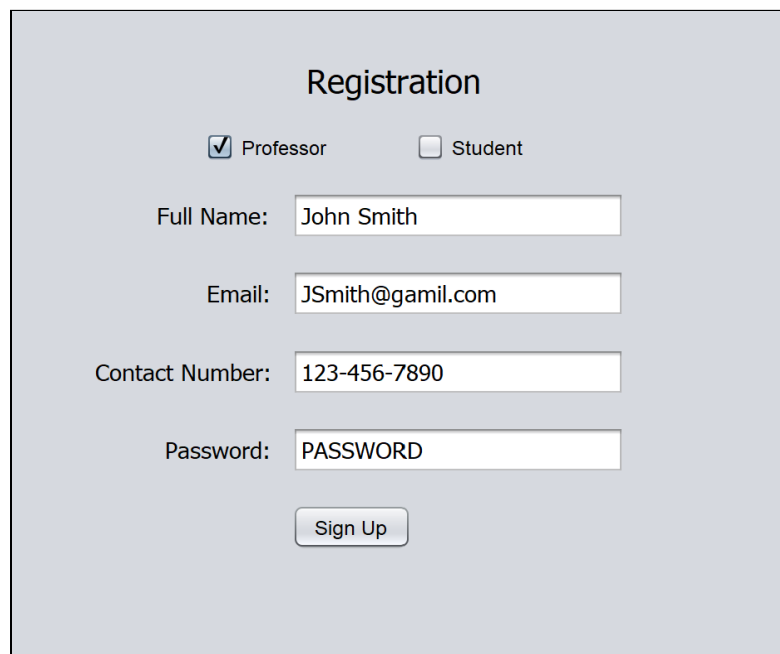
Password:

Sign in

Register

Figure 2: Login/Signup Screen

2. Register Screen



A registration screen with a light gray background. At the top center is the title "Registration". Below it are two radio buttons: "Professor" (checked) and "Student". Below these are four input fields: "Full Name:" (containing "John Smith"), "Email:" (containing "JSmith@gamil.com"), "Contact Number:" (containing "123-456-7890"), and "Password:" (containing "PASSWORD"). At the bottom is a "Sign Up" button.

Registration

☒ Professor ☐ Student

Full Name: John Smith

Email: JSmith@gamil.com

Contact Number: 123-456-7890

Password: PASSWORD

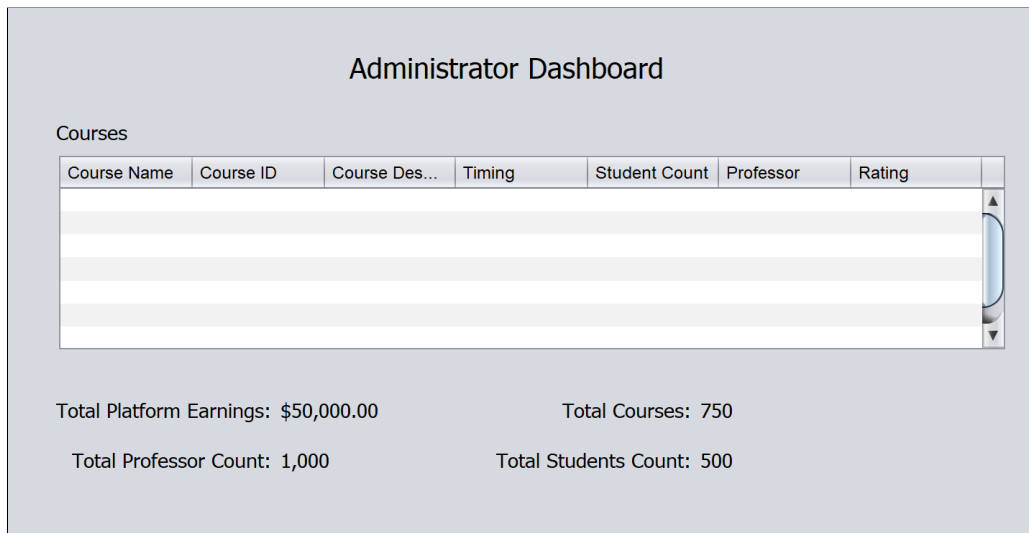
Sign Up

Figure 3: Registration Screen

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3. Administrator Dashboard



The Administrator Dashboard features a title bar, a 'Courses' section with a table, and summary statistics at the bottom.

Administrator Dashboard

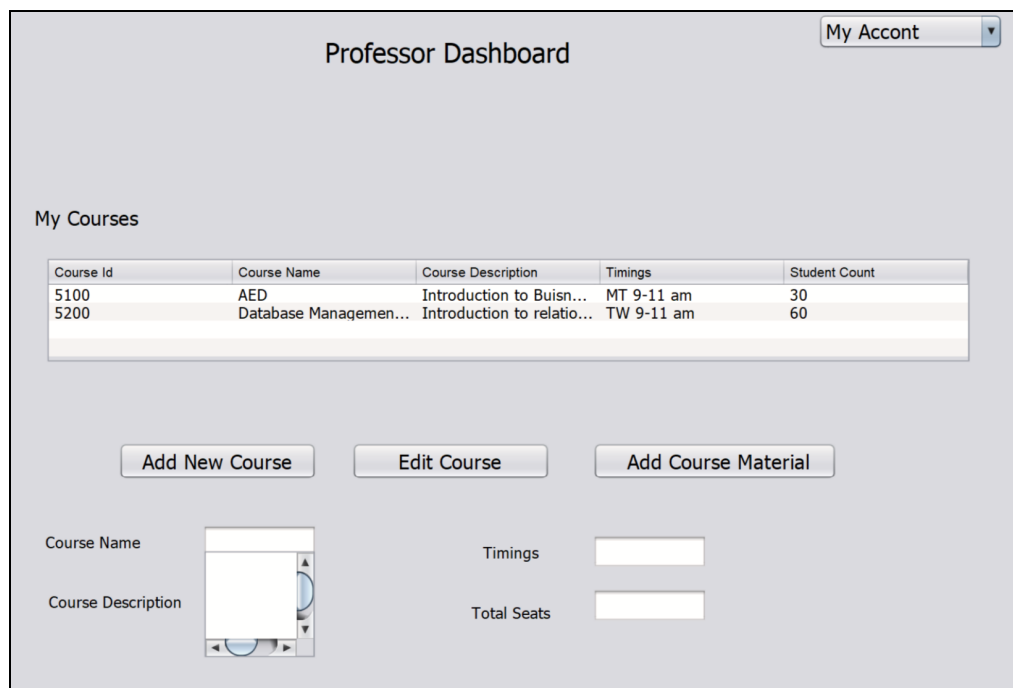
Courses

Course Name	Course ID	Course Des...	Timing	Student Count	Professor	Rating

Total Platform Earnings: \$50,000.00 Total Courses: 750
Total Professor Count: 1,000 Total Students Count: 500

Figure 4: Admin Dashboard

4. Professor Screen



The Professor Dashboard includes a 'My Account' dropdown, a 'My Courses' table, action buttons, and input fields for course details.

Professor Dashboard My Account

My Courses

Course Id	Course Name	Course Description	Timings	Student Count
5100	AED	Introduction to Buisn...	MT 9-11 am	30
5200	Database Managemen...	Introduction to relatio...	TW 9-11 am	60

Add New Course Edit Course Add Course Material

Course Name

Course Description

Timings

Total Seats

Figure 5: Professor Dashboard

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5. Student Dashboard

The Student Dashboard interface features a header with the title "Student Dashboard" and a user ID "00112233" in a dropdown menu. Below the header, there are two main sections: "My Courses" and "Completed Courses". Each section contains a table with columns for Course Name, Course ID, Course Description, Timing, Student Count, and Professor. The "My Courses" table is currently empty. Below the "My Courses" table, there is a section for "Available Courses" with a dropdown menu and a "Search" button. The "Completed Courses" table is also empty. At the bottom of the dashboard, there are two lines of text: "Completed Credits: 24" and "Remaining Credits: 16".

Course Name	Course ID	Course Description	Timing	Student Count	Professor
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Available Courses

Course Name	Course ID	Course Description	Timing	Student Count	Professor
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Completed Credits: 24
Remaining Credits: 16

Figure 6: Student Dashboard

6. Personal Information

The Personal Information form is a vertical layout with a title "Personal Information" at the top. Below the title, there are six input fields: "First Name", "Last Name", "Email", "Contact Numer", "Address", and "About Me". The "About Me" field is a larger text area. At the bottom of the form, there is an "Edit" button.

First Name

Last Name

Email

Contact Numer

Address

About Me

Figure 7: Personal Information

7. Course List

The screenshot shows a web interface titled "Course List:". At the top left is a "Back" button. Below the title is a table with the following headers: "Course Name", "Course ID", "Course Des...", "Timing", "Student Count", "Professor", and "Rating". The table has several empty rows and a vertical scrollbar on the right. Below the table is a search section with a dropdown menu labeled "Available Courses", a "Search" button, and a "Sign Up" button.

Figure 8: Course List

Sequence Diagram

The sequence diagram below shows the interaction between the different objects that make up the Professor as a service platform.

The objects within the sequence diagram include:

1. Interface
2. Edical Platform
3. Professor
4. Student,
5. 3rd Party DegreeCertificate provider.

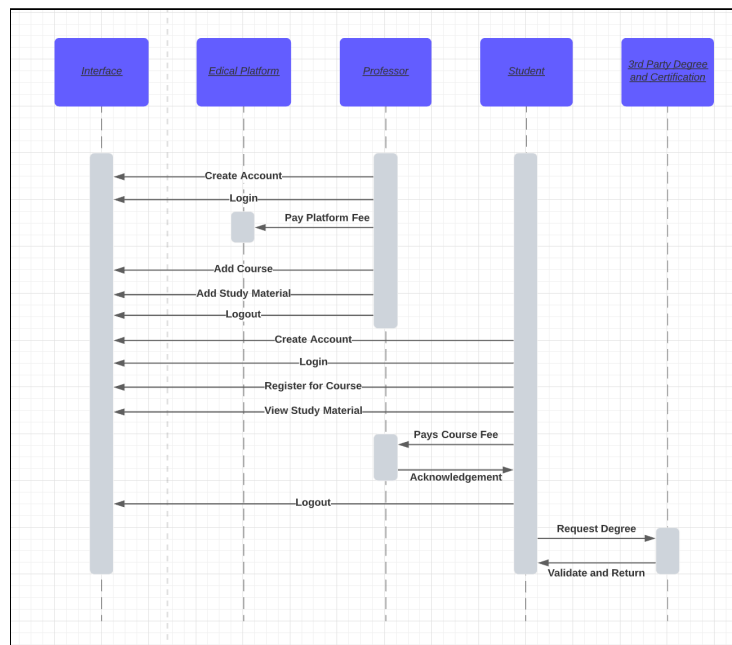


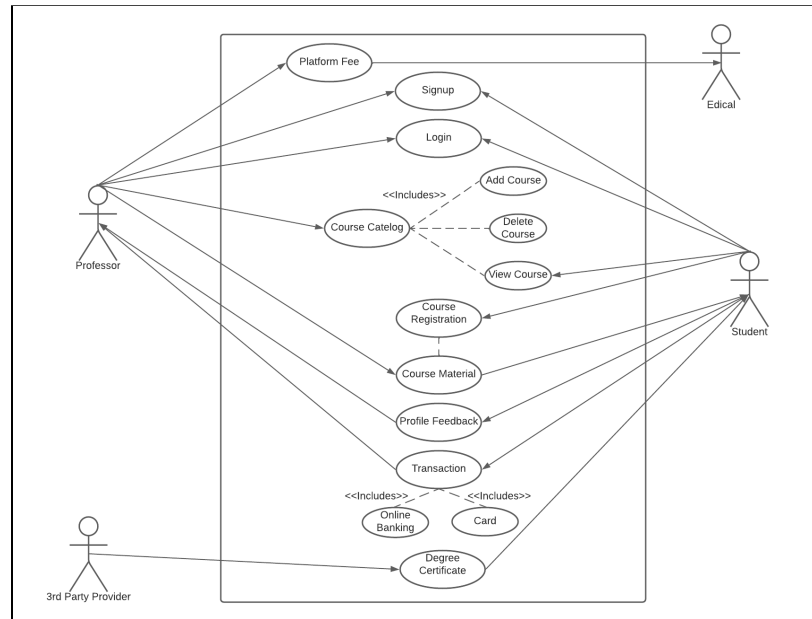
Figure 9: Sequence Diagram

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Use Case Diagram

The below diagram showcases the use case diagram summarizes the details of the users of the system.



Final Assessment

Digital education platforms, like PaaS, are the future of learning. Edtech Platforms significantly reduce the cost of educational studies and provide easy accessibility to professors and students across the world.

PaaS is designed to provide an educational platform that not only allows professors to have full autonomy, but to also allow students in low class communities to access the same education as those in upper class communities.

Additionally, the users can access the classes which are being delivered through any mode like mobile, tablet or computer without explicitly buying a new gadget.

Overall, I think such an edtech platform will be a boon for society because technology is supposed to connect the people from the world and make it a better place.