Project Proposal For SWE 4304

Project Name: Ed-Ez

Supervisor

Nafisa Sadaf Hriti

Team Members

Zaara Zabeen Arpa	200042101
Mirza Mohammad Azwad	200042121
Sadnam Sakib Apurbo	200042135

…………………………

Date of Submission: Date   Supervisor's Signature

Contents

Introduction

Motivation Behind Project

Most educational management platforms tend to have some common problems, namely:

a) Unorganized Class Schedules

b) Static Grading System

c) Resource Scarcity

d) Poor Event Tracking

This is where our project become useful. It introduces an array of new features that helps keep track of students' daily schedules and academic progress that improve their productivity in the long run.

Our Solution

ED-EZ is an online education management platform with which educational institutes can manage their activity with a higher level of functionality and convenience.

Our tagline is "**Education Made Easy**"

Our Project Goals:

1) Intuitive Calendar with Relevant Information

2) Notification System

3) User-friendly UI

4) Grade Calculator

5) Resource Sharing

In a more simplistic sense, this is a simple LMS system for universities to handle their classroom management more efficiently by the introduction of some new features.

Key Features

➔ **Interactive Scheduling**

Interactive scheduling system for the users to be up to date with their tasks

➔ **Grading and Submission**

Submission and grading system for each quiz and assignment. Grade calculator to calculate overall result

➔ **Classrooms**

Teachers can enroll students in individual classrooms

➔ **Resource Sharing**

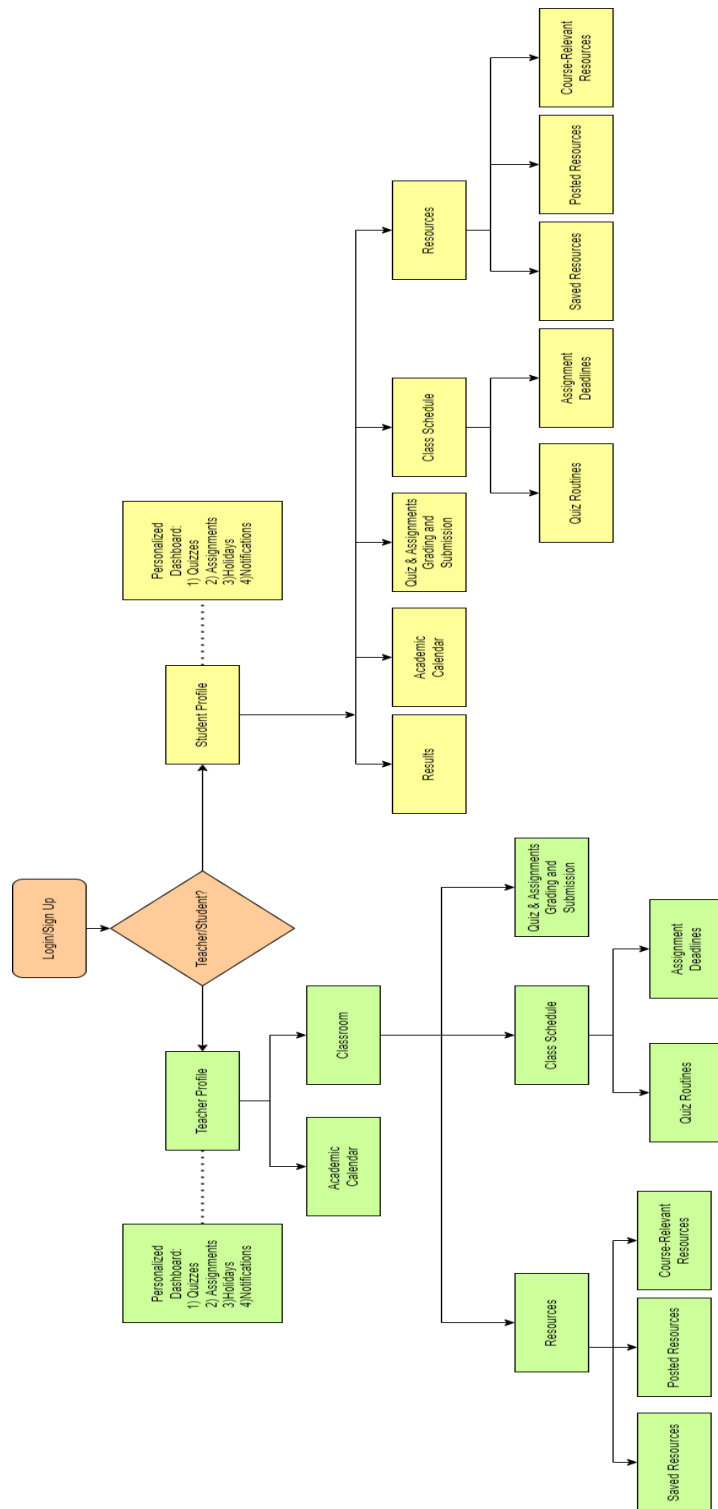Users will be able to find, save and share relevant resources with other users

➔ **Dashboard**

Simple dashboard filled with relevant information

➔ **Notifications**

Users will receive notifications for quizzes, assignments, and upcoming classes

Top-Down Design Of Our Platform

As per our features this typical learning management system has a few parts that are synced between individual classrooms and students, we first mention those:

- Class Schedule
- Resources
- Quiz & Assignments
- Results

Results

The Results aren't stored but rather computed based on marks obtained with every quiz, assignment or exam as a student progresses throughout the semester. In every semester, calculations are performed to determine the change in GPA with every quiz, assignment, or exam to show how the GPA changes and give an idea of how much a student has to improve to maintain their desired GPA. At the end of every semester, the CGPA is calculated based on the cumulative average of the GPA of that semester and the previous semesters. It is essentially a live tracking of the grades.

Resources

The Resources Section has resources from past years as well relevant to that course or that course being taken somewhere else and can also be shared via tags provided that the resources are public. The Resources Section also allows users to share resources within the scope of their classroom as well as save relevant resources for future use.

Class Schedule & Academic Calendar

The Class Schedule also has synchronization with every member of a classroom that is the teachers and the students in the classroom. This allows users to keep track of quiz dates, assignment deadlines, and holidays, and thus plan accordingly. It is in essence a real-time synced calendar. There is also a **static academic calendar(just a page or a pdf containing the information about the academic calendar of an institution)** provided to all members of a classroom on the basis of universities that are updated by the teacher and viewed by everyone in that classroom.
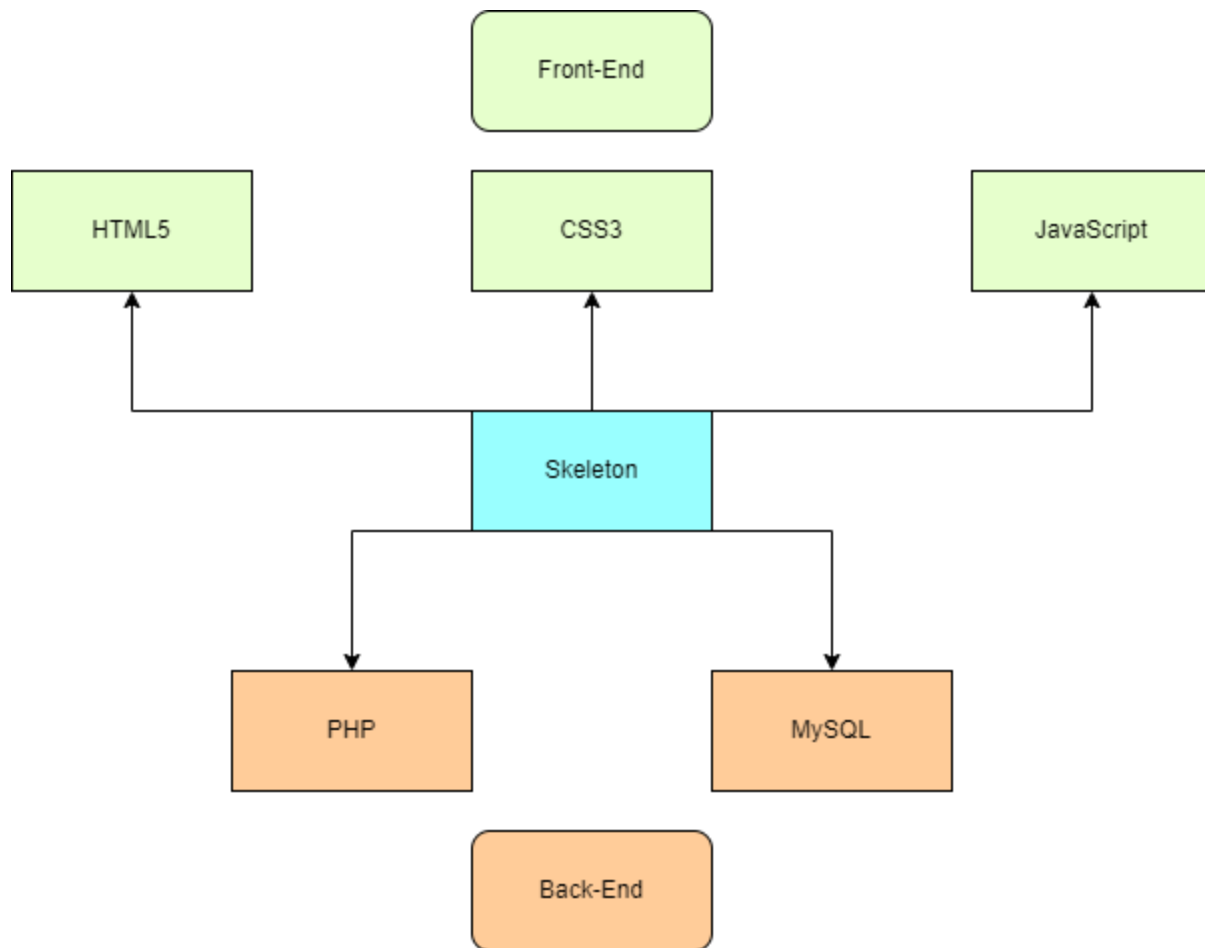
Quiz and Assignment Grading & Submission

There are options to submit the quiz and assignments by the students which help the teachers to take virtual quizzes or take tests online and store the results of the class activities in a more authentic manner with evidence of the test papers and assignments. The results of the quiz can then be updated by the teacher upon checking, manually(There is no automated checking being used).

Simplistic Dashboard

Every profile comes equipped with a simple yet elegant dashboard that keeps the users updated about their daily activities such as the quizzes or assignments deadlines on a particular day, whether or not a class is canceled or a holiday is issued, and other virtual notifications. Essentially it makes it easier for students to keep tabs on what is going on in the classrooms.
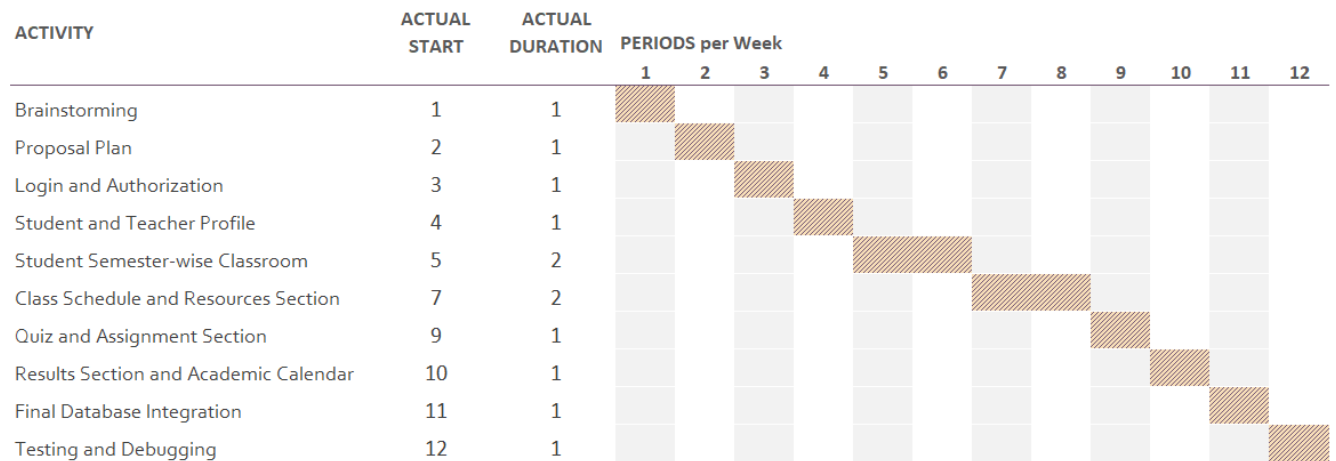
Technologies Used

Here we are using HTML5, CSS, and Vanilla Javascript for the front-end while using PHP to handle the backend calls and MySQL to handle the database for the system. Throughout the process of development, we may utilize W3 CSS, Bootstrap, and/or Tailwind CSS to improve the outlook of the website.

Project Timeline

The Grantt Chart showing the estimated workflow over time is shown below:

Grantt Chart for Ed-Ez

ACTIVITY	ACTUAL START	ACTUAL DURATION	PERIODS per Week											
			1	2	3	4	5	6	7	8	9	10	11	12
Brainstorming	1	1	▨											
Proposal Plan	2	1		▨										
Login and Authorization	3	1			▨									
Student and Teacher Profile	4	1				▨								
Student Semester-wise Classroom	5	2					▨							
Class Schedule and Resources Section	7	2							▨					
Quiz and Assignment Section	9	1									▨			
Results Section and Academic Calendar	10	1										▨		
Final Database Integration	11	1											▨	
Testing and Debugging	12	1												▨

This estimation is subject to change on the basis of work done where deadlines may be met earlier or later depending on the work to be done.

Major Challenges

The major issues that our project is most likely to face based on our current understanding of the scope:

➔ **Database Management**

Maintaining relations between teachers' and students' data. The relationship between the data for the student, teachers, and the respective classrooms is expected to be a great challenge to handle while maintaining the industry practice to the best of our abilities.

➔ **Scheduling**

Schedule management for the user requires the implementation of customized calendars and upon our freedom to utilize various APIs the complexity of the task may increase. Being allowed to use google's calendar APIs greatly reduce the difficulty of the task.

➔ **Interaction**

Making interaction between teacher and student seamless such as how the data is exchanged between the two in a given classroom, resource sharing, etc. is also expected to be troublesome.

Conclusion

We expect to be able to complete the project within the given time frame but assuming we have more time we may implement certain additional features but the time constraint is what would determine that. For the purpose of simplicity of ideas, certain approaches may resemble existing platforms but no code would be reused from any of these platforms but inspiration may be obtained. This is the draft proposal and the contents of this proposal may be subject to change in the near future provided that the circumstances force it.