Project Report  
  
  
  
  
  
CSE 299  
Junior Design Course  
Spring – 2019

Section : 2

Group : 4

Team Members:

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Submitted To:  
Shaikh Shawon Arefin Shimon

**Project Name:**

Online Quiz Web App

**Project Type:**

Website Application

Introduction:  
This will be a website application platform where teachers around the world can take quizzes virtually via the internet. The teachers will be able to create a classroom which students can join with a unique code. After that, the teachers will be able to create a quiz through the web app. The teacher will also be able to set a time for a specific quiz as well as view the grade history of individual classes and students.

Objectives & Functions:

* Different profile types for student and teacher
* Creation of classroom by teacher and adding students to it
* Creation of quiz sessions with specific time limits
* In app quiz answer checking
* Publishing results to each student’s account
* Archiving attended quiz questions and answers
* Real time multiple user access and authentication

Monetization Strategy:

Initially the web app will be free to use for a single teacher account and a teacher will be able to take up to 2 quizzes free of charge. After the limit is reached a teacher will be able to choose one from our paid plans.

* **Basic Plan:** Tk. 85 per quiz to be taken.
* **Saver Plan:** Tk. 110 per month for unlimited amount of quizzes each month.

Features List:

**-Teacher Panel:**

* Create classes
* Create quizzes
* View each student performance on each quiz graphically
* View each student’s performance in a class graphically

**-Student Panel:**

* Join classes
* Take quiz
* View quiz grades

Technology implementations:

* Front End –HTML, Javascript, PHP
* Back End – PHP
* Library/Frameworks – Bulma framework, Bootstrap framework, CanvasJS

User guidelines:

* **Teacher’s Approach:**
* Create a teacher account
* Create a class
* Approve students who have requested to join the class
* Create a quiz
* View students’ grades
* View class’ grades
* **Student’s Approach:**
* Create a student account
* Join a particular class
* Take a quiz
* View grade history

References:

* All the graphic images are taken from [www.freepik.com](http://www.freepik.com)
* Graph chart library:<https://canvasjs.com/php-charts/>
* Css framework: <https://bulma.io/>

Links:

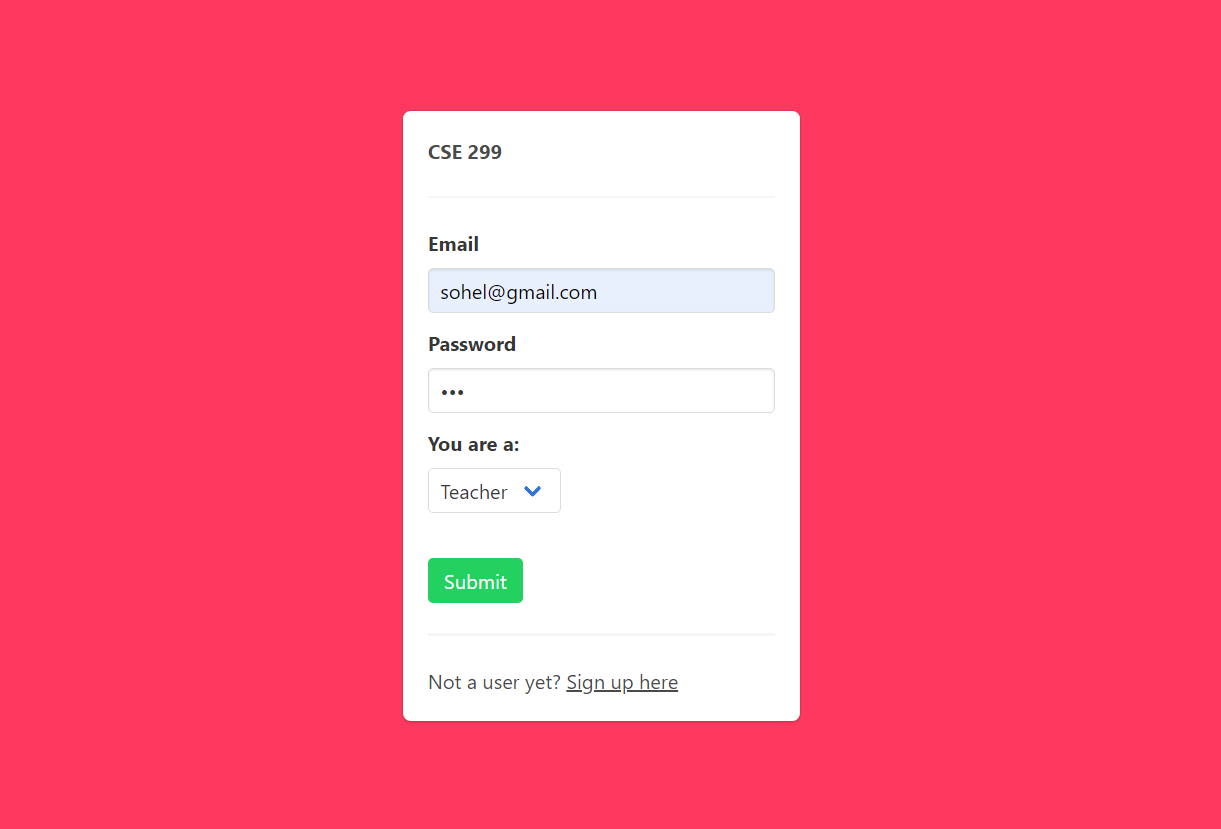
Github project link: https://github.com/nsuspring2019cse299sec2/Group-4

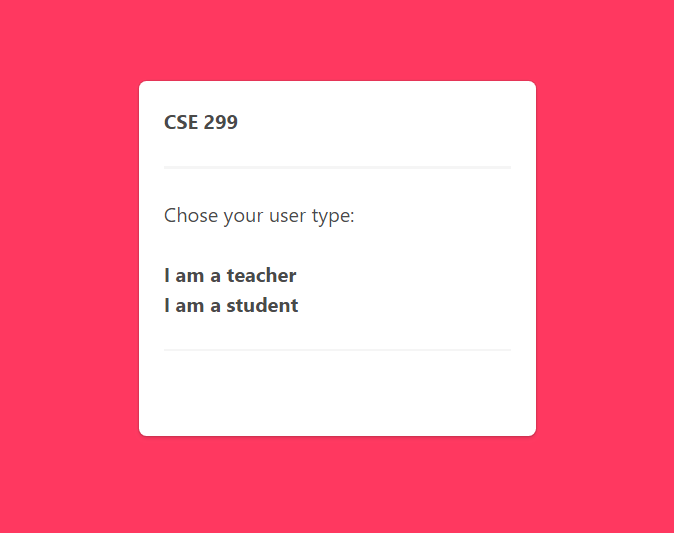
Trello board link: https://trello.com/b/0G7XSZ7g/quiz-web-app

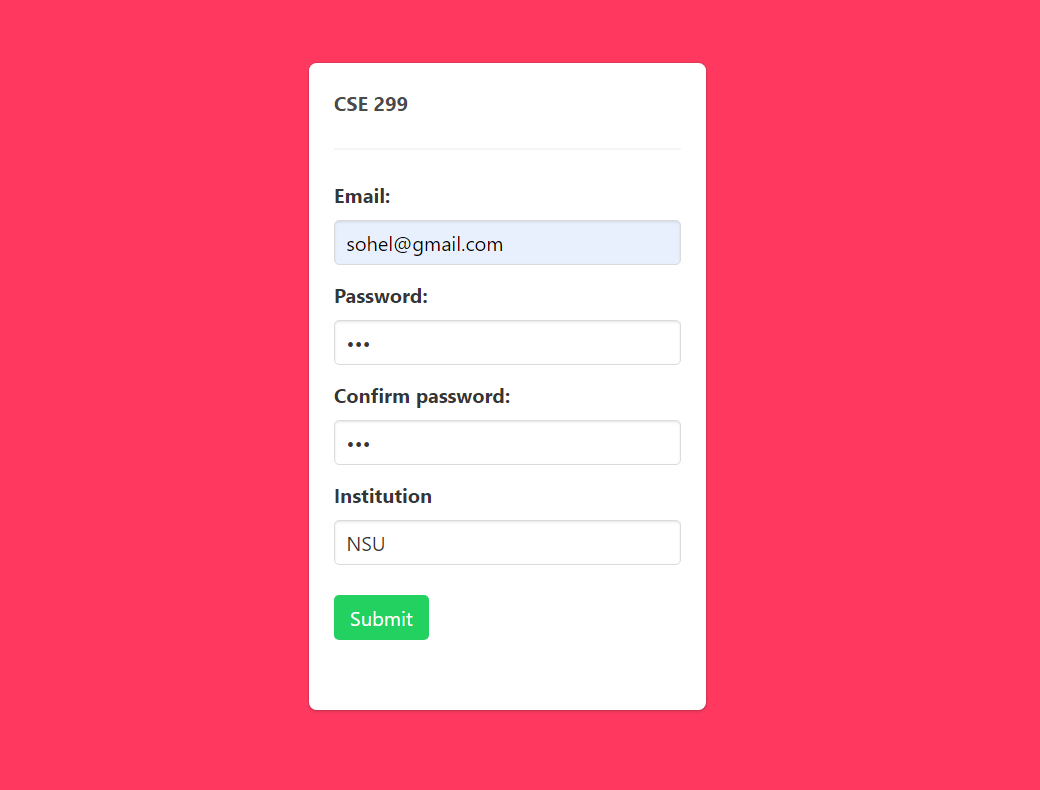
Slack channel link: https://sp19cse299sc2grp4.slack.com/

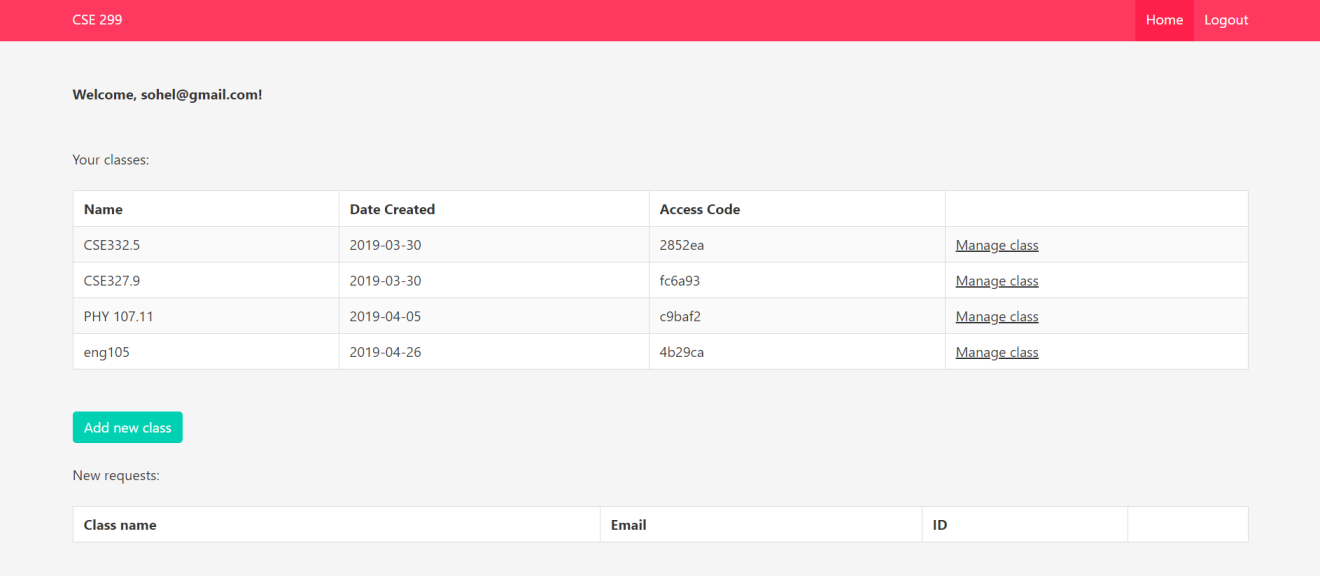
User pathway as a teacher:

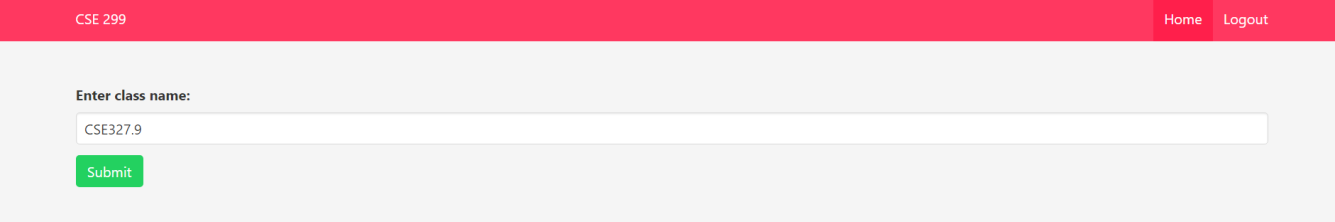
1. Login – The teacher enters his email, password and user type to log in.



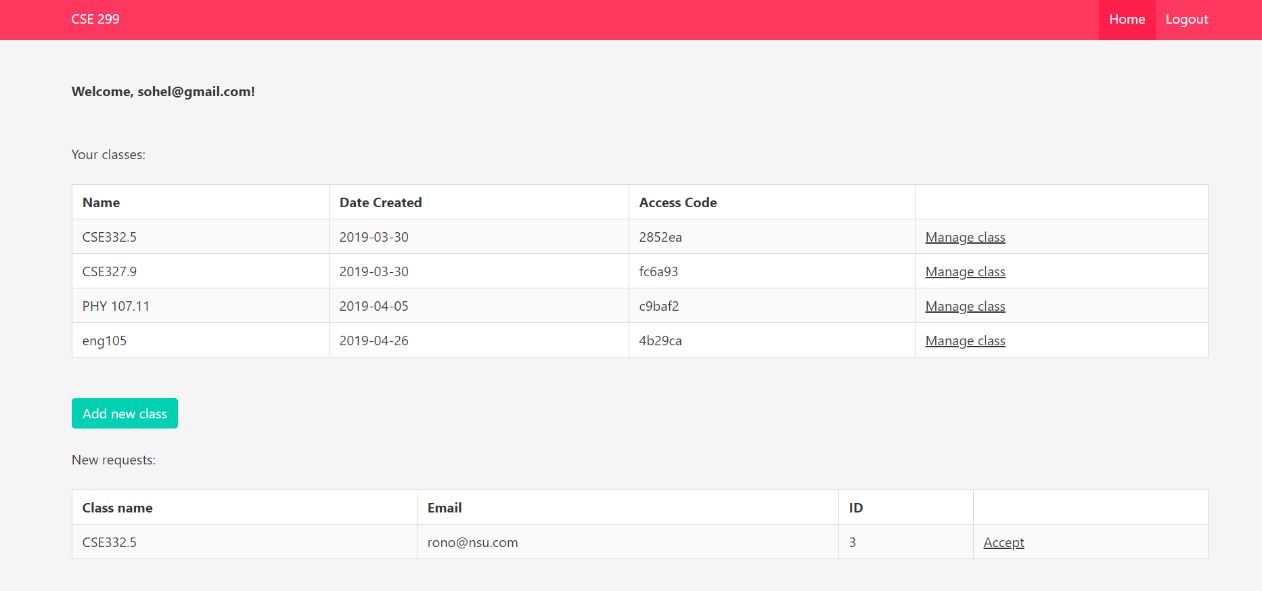
1. Registration – If a teacher doesn’t have an account then he can register for it in the “Sign up here” section of the login page. Then he chooses his user type and provides his email address, password and institution name to complete registration.



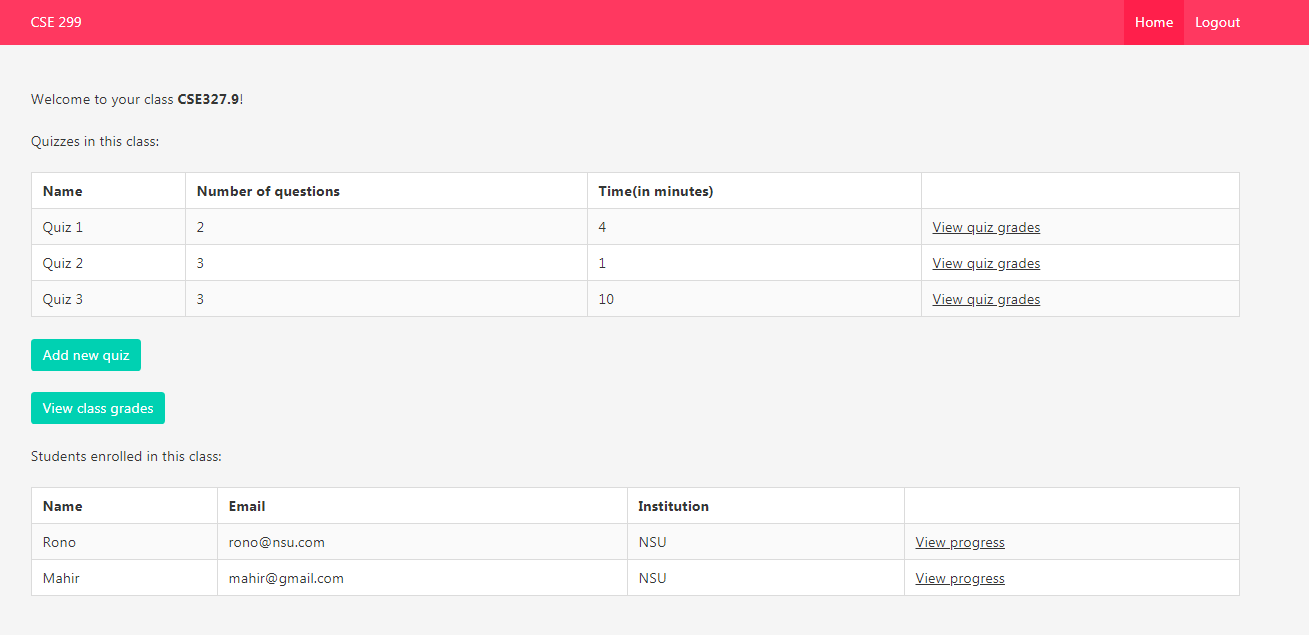
1. Add new class – After logging in as a teacher he will be able to create new classes with a name of his choice. Creating a class will generate a code as an access key which uniquely identifies the class and with which the students can join the class.

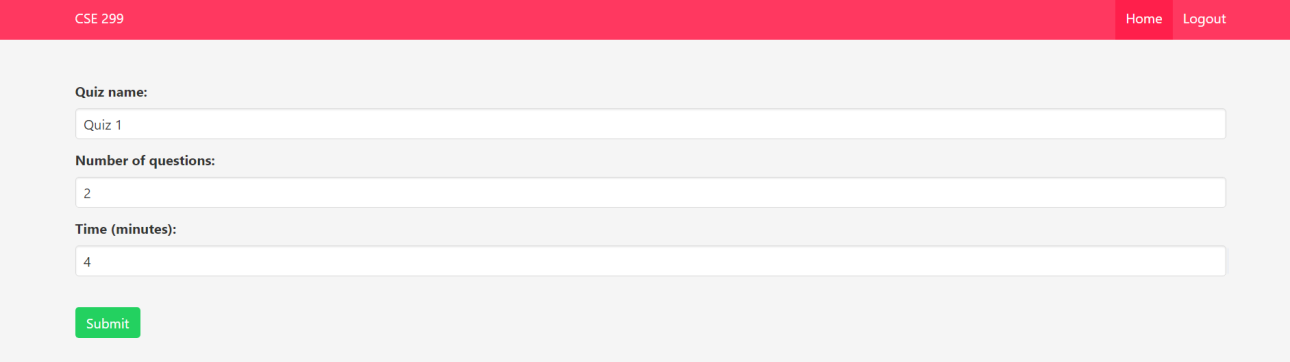


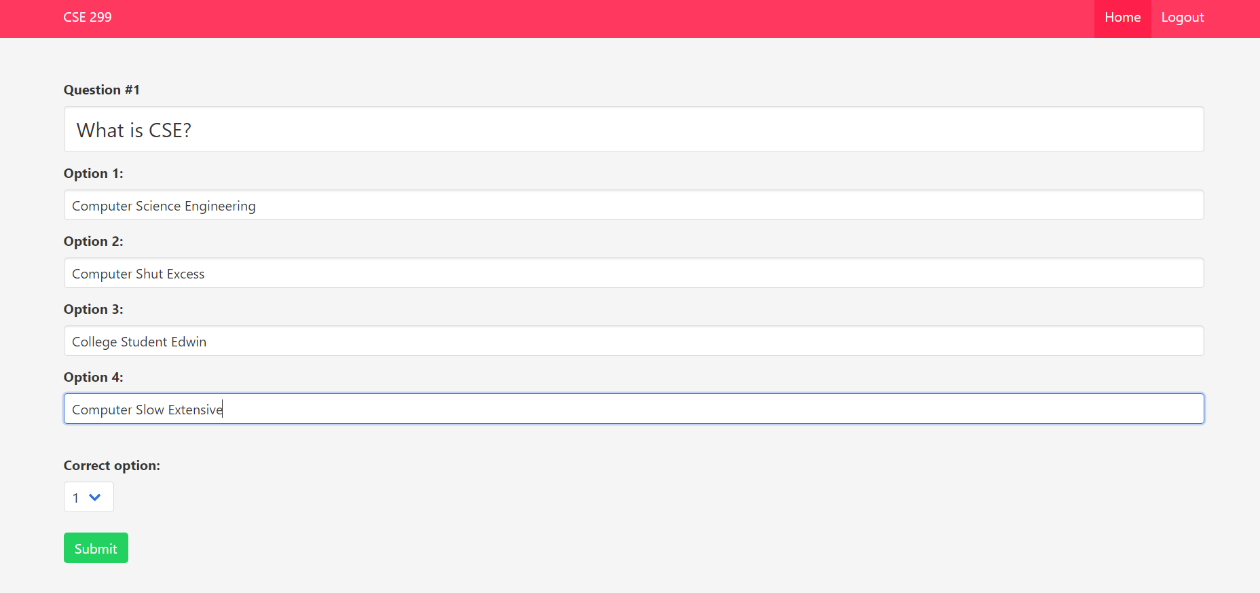
1. New Requests – Teachers can accept new student requests if he is satisfied with the student’s ID shown in the request.The student ID can be checked by the teacher to ensure that unauthorized users do not get into a class.



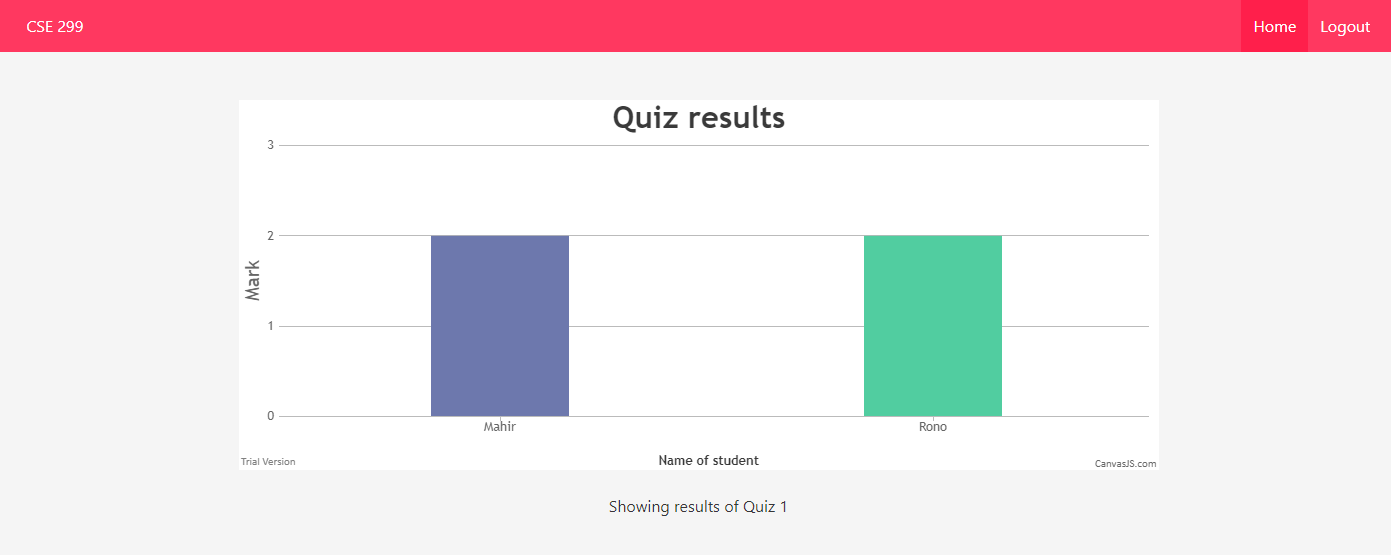
1. Manage class – Clicking on manage class in the landing page brings the teacher to the landing page of that particular class. Here, teachers will be able to add new quizzes, see all the quizzes in the class, view class grades and also a list of the students that are enrolled in the classroom (along with their email and institution).

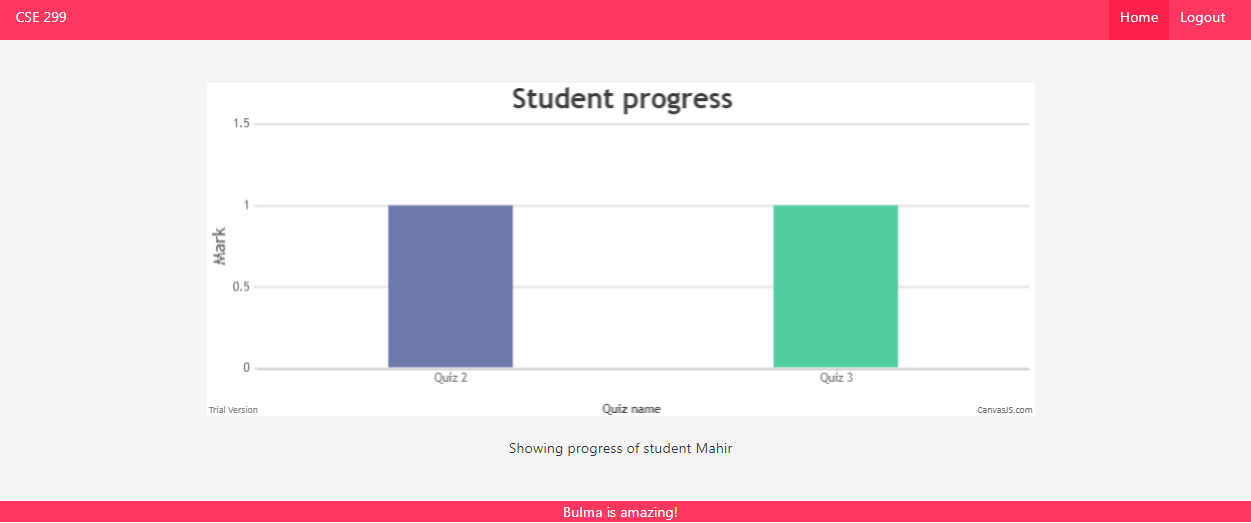


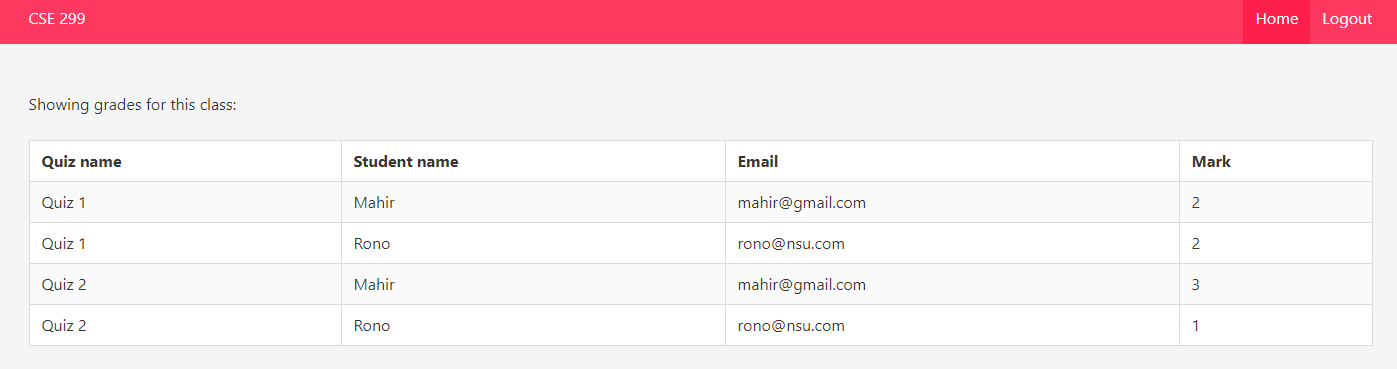
1. Add new quiz – If the teacher clicks on “Add new quiz”, he will be able to create new quizzes by giving a quiz name, number of questions and a time limit (in minutes). After that the teacher will add the questions and the correct answer for it to successfully add a new quiz. Each question will have four options.



1. View quiz grades – In the ‘view quiz grades’ section the teacher will be able to view the grades of every student (who has taken the quiz) as a bar chart.



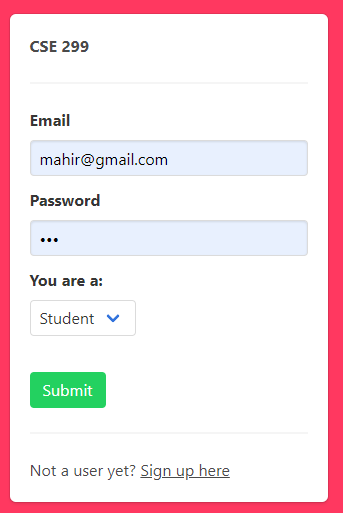
1. View student grades – Clicking on “View progress” next to a student’s name will show the grades of that student in every quiz that he has taken inside that class.
2. View class grades – In the “View class grades” section the teacher will be able to view the grades of every student who has taken any quiz in the classroom in a tabular form.



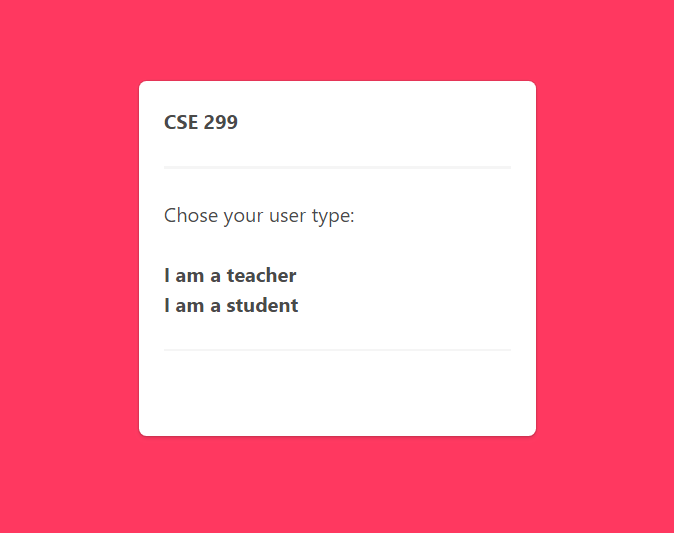
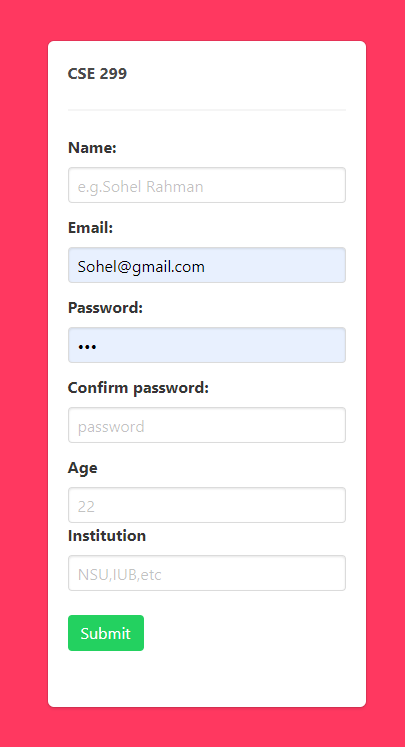
1. Home & Logout –The teacher can go to their profile homepage by pressing the “Home” button in the navigation bar present at the top of every page and can sign out by pressing the “Logout” button.

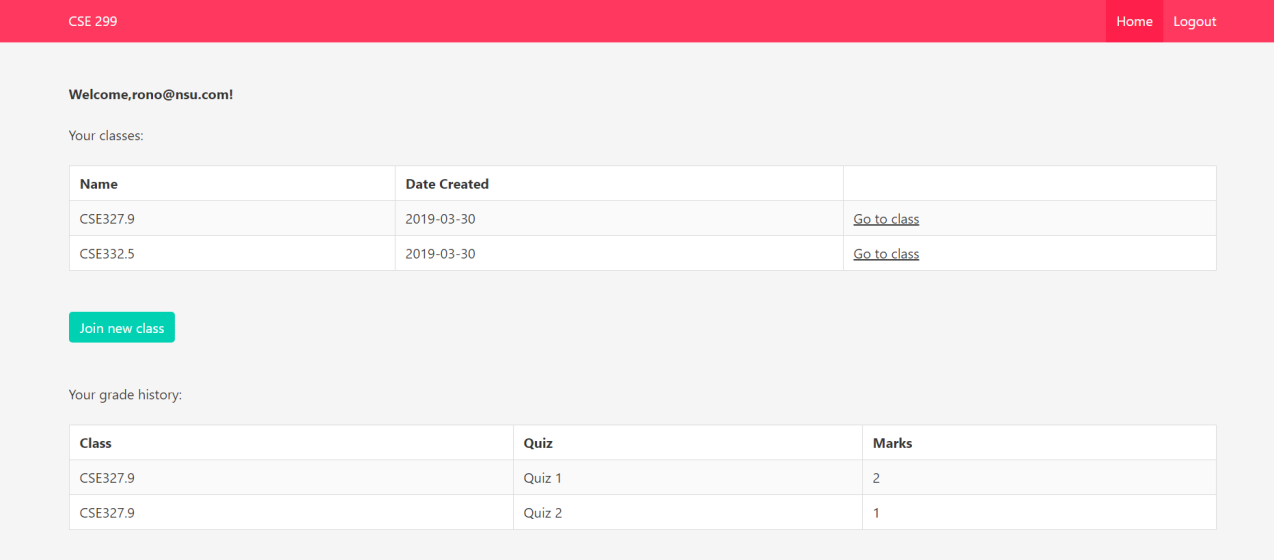
User pathway as a student:

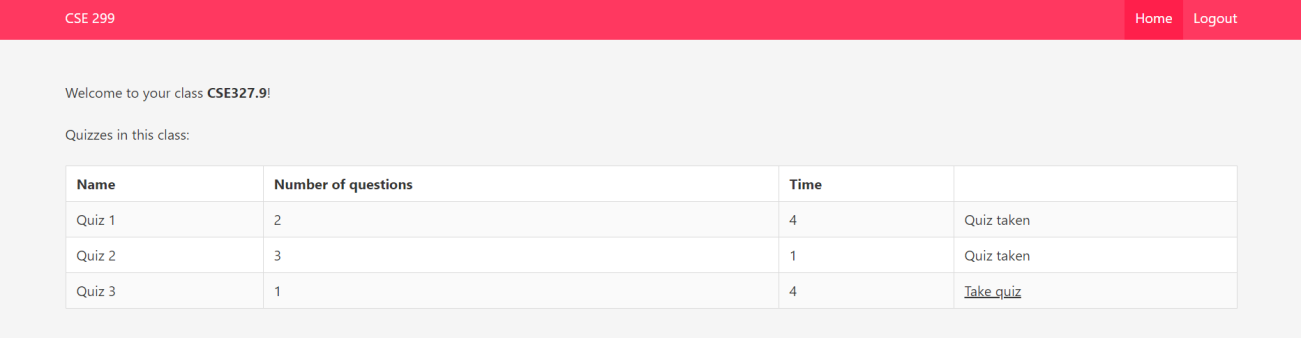
1. Login – Enter your email, password and user type to log in.



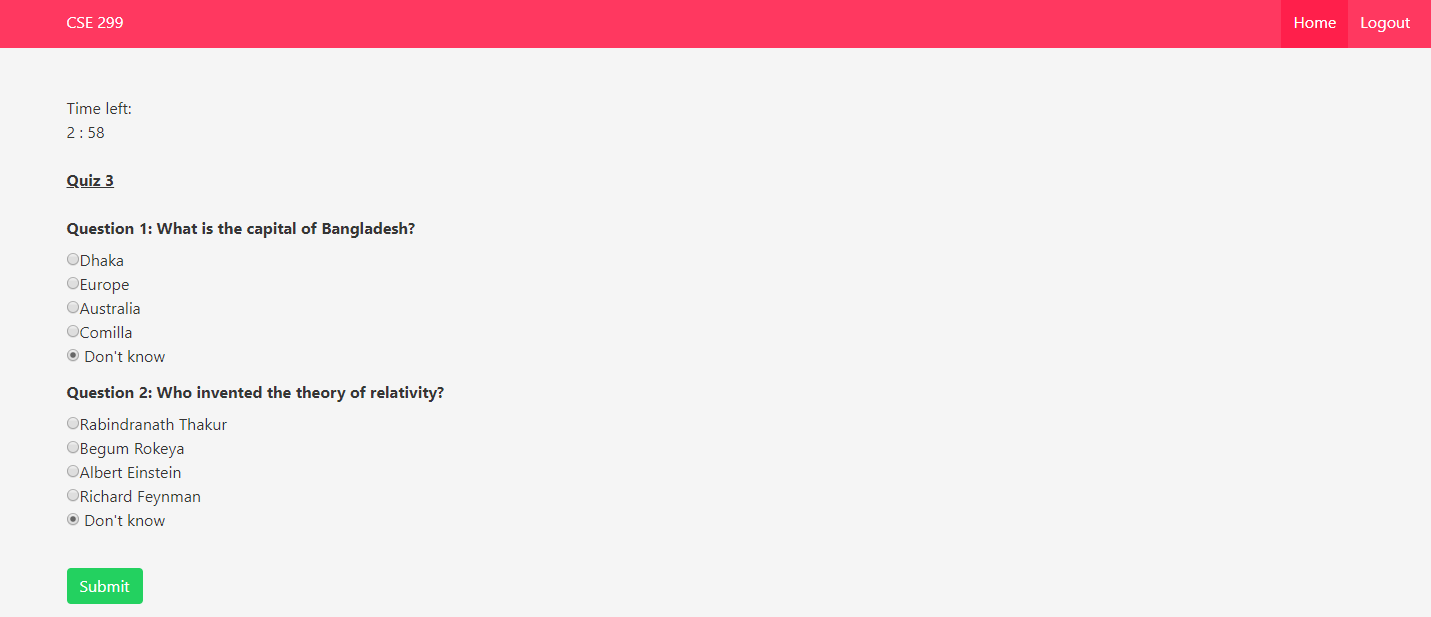
1. Registration – If you don’t have an account then register for it in the “Sign up here” section of the login page. Choose your user type (student) and provide your email address, password and institution name to complete registration.



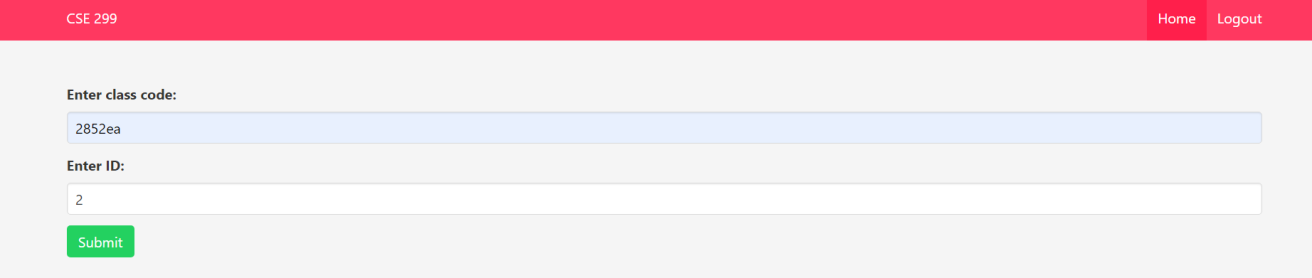
1. Home Page – On the student landing page, the student can see the classes that he is enrolled in, join a new class and also see his grade history.
2. Classroom – On the home page the student will have to click on ‘Go to class’ to enter a certain classroom. Inside a classroom, he will be able to see the quizzes in the classroom and take a quiz (if he hasn’t taken it before).



1. Take quiz - Once the student clicks on ‘Take quiz’, he will be shown the quiz questions, their respective options, as well as the time-remaining. If the time runs out, the student’s selected response (or an empty response) is automatically submitted to the database for storage. The system automatically marks his quiz and stores his marks.



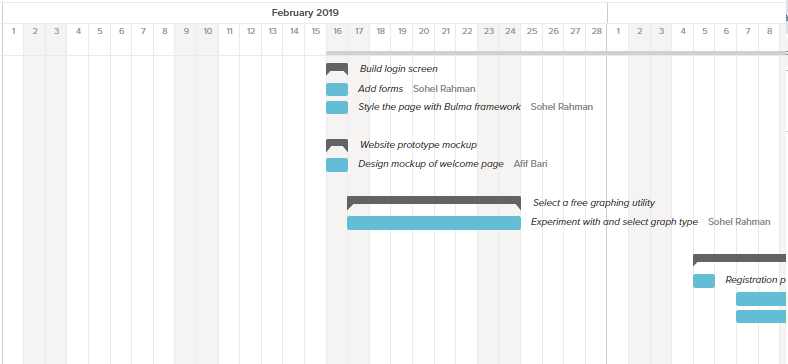
1. Join new class – A student can join a new class from his landing page by clicking on the “Join new class” button. A student has to give the access code of the class and his student ID in order to join the class.

\*\* The student will successfully join a class only after the join request is accepted by the teacher of the class.  


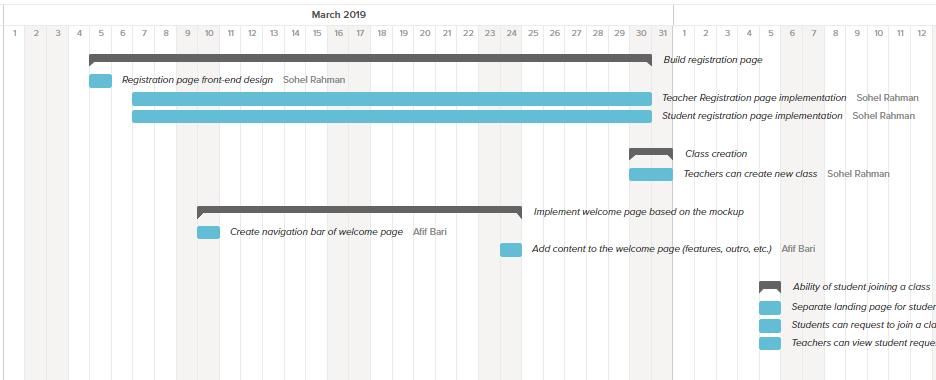
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Gantt chart:

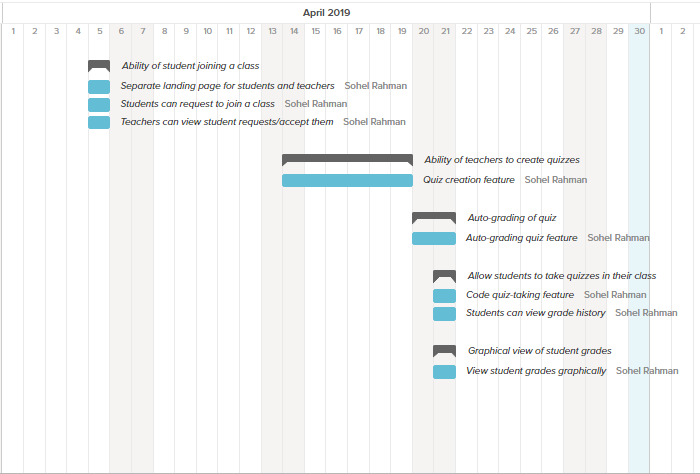
February:



March:



April:



Challenges faced:

* The initial plan of allowing teachers to include various types of question types (mcq, broad questions, fill in the blanks, etc.) proved to be very complex to implement. Due to time constraints, only mcq questions are now offered by the system.
* Deploying the code online proved challenging at times. The online server is more strict about the PHP code syntaxes and conventions than the local server (using XAMPP) is. Thus, deploying a perfectly working system online would often break things here and there unexpectedly, which had to be fixed.