CS 6314 - Web Programming Languages - Final Project

Online Tutoring Application

Each project should include following major functionalities:

- User signup: Register a new user to the system.
    - Check the new username or email address if it's already registered to the system using AJAX.
    - Form validation: Check if all mandatory fields are filled out.
    - Check if password is strong enough. Define the rules of having a strong password. User passwords should be hashed and hashed version of passwords should be stored in the database.
- User login
- List all tutors in the system. User should be able to "Search" for a specific tutor name or search for tutors for a given subject (area of expertise).
- Users will be able to add tutors to their favorite list, access their favorite list and remove tutors from the list.
- Users should be able to rate a given tutor. They will also enter their feedback/comments.
- Tutors will be able to sign-up for a tutor account. They will enter their detailed information (subject list, about me, working hours) and upload profile picture. They should be able to edit and update these details as well.
- Users will be able to make appointments with a tutor of their choice. For making appointments, availability of the tutor should be checked (both working hours and previously booked appointments).
- For users, upcoming appointments should be listed along with tutor name, date and time information.
- For tutors, upcoming appointments should be listed along with student, date and time information.
- For users, total tutoring hours completed should be shown.
- For tutors, total tutoring hours completed, and average rating should be shown.

Each functionality listed above is **5 points**. If you miss any of those functionaties you will lose 5 points for each.

Extra features: (3 points each)

Appointment reminders (email notifications)

Cancel appointments: Appointments can be canceled 24 hours prior to the scheduled tutoring session.

Front-end design

You can use Bootstrap and Bootstrap templates for user interface design. You can also use design tools. You will be free to have your design choice but it's important to have a professional look for all pages (i.e. the same menu or navigation bar appears on top of every page etc.).

Back-end design

You can use relational databases or MongoDB for database component.
For server side scripting, you will use Node.JS and Express.js and create an API.
You can consume the API and build your user interfaces by using Javascript (AJAX) or React.

Project Report

Project Report should include following items:

- Name for the Website
- Database Design: Database structure including the tables and primary and foreign key definitions on tables. Alternatively, you can include your "Create Table" statements to show your database schema. In case you use MongoDB, provide information about your data model (example objects).
- Screenshots for main functionalities (5-6 screenshots will be sufficient)
- Team Members: Names and Net-IDs for team members. Include the section number for each member.
- Work division among team members: who has completed which part (be specific and try to give page names). Please note that every team member should be actively involved in every step of the project development

(database design, client-side and server-side scripting) and work should be equally divided between team members.

Deliverables:

Part 1 – UI Design (3% of overall grade)
Part 2 – React Application (3% of overall grade)
Part 3 – API implementation (Node.js) (4% of overall grade)
Part 4 – Complete Application (20% of overall grade)

Each team is responsible for sending following items for Part-4:

- Project report. File name should be Teamnumber.pdf.
- Source files (zip your project directory)
- Video recording of your website's demo. In the video, you will walk viewers through all main functions of the website. The video should be between 3-5 minutes long. Include the video link at the end of project report.

Early project submission date is May 5th. Project presentations can be made during class session on May 5th. In that case, you will not send a video recording of demo.

Final due date for project submission is **May 12, 2022, 11:59 PM.**