

CS408: Product Backlog

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Problem Statement:

Every student, at some point, has felt a need for someone to tutor them, when they are stuck with a difficult topic or tough homework problems. There are other students who are willing to tutor the ones in need for a fee, but they use old school flyers and the students do not even know about them. There is a need for a platform to exist where the students (those in need) can connect to tutors (those who can provide).

Background Information:

Often, when a student is having trouble in a class and they can't find the time to meet with a professor or a TA, they seek for the outside help of a tutor. Currently, most tutors advertise their services through paper flyers posted around campus. This makes it cumbersome for students to reach out to the tutors when in need. Also, a student has no way of knowing the quality of a tutor. Hence the need for an application is to connect the students who need help with the tutors who can provide it, making it easier for both parties.

Environment:

We will develop a web application, using the .NET Framework for the full stack. Front end will be mainly HTML, CSS, and a form of JavaScript, with the backend in mainly C#. We will also host a SQL database to store all of our information. We will likely use most standard libraries throughout development, potentially implementing Bootstrap on the front end. We will be using Visual Studio as an IDE and Git as a version control.

Functional Requirements:

ID	Functional Requirement	Hours	Status
1	As a user, I would like a create an account.	6	Completed in: Sprint 1
2	As a student, I would like to see available tutors, for selected courses	4	Sprint 2
3	As a student, I would like to view available times for the tutor I've selected	4	Sprint 2
4	As a student, I would like to be able to rate tutors	3	Sprint 2

5	As a student, I would like to be able to see ratings of a tutor	3	Sprint 2
6	As a student, I would like to view tutor's contact information	8	Sprint 2
7	As a student, I would like to search for a specific course	6	Sprint 2
8	As a student, I would like to search for a specific tutor	6	Sprint 2
9	As a tutor, I would like to edit a tutor profile	8	Completed in: Sprint 2
10	As a student, I would like to edit a student profile	8	Completed in: Sprint 2
11	As a tutor, I would like to input the classes I can tutor.	6	Completed in: Sprint 2
12	As a tutor, I would like to input the days I can tutor.	4	Completed in: Sprint 2
13	As a tutor, I would like to input the times I can tutor.	4	Completed in: Sprint 2
14	As a tutor, I would like to input the price I tutor for.	4	Completed in: Sprint 2
15	As a tutor, I would like to be able to create a bio.	4	Completed in: Sprint 2
16	As a tutor, I would like to be able to see my rating.	2	Completed in: Sprint 2
17	As a tutor, I would like to remove my tutoring availability.	4	Completed in: Sprint 2
18	As a tutor, I would like to modify my tutoring availability.	4	Completed in: Sprint 2
19	As a student, I would like to input the classes I am taking	6	Completed in: Sprint 2
20	As a student, I would like to input the time I am available weekly.	4	Completed in: Sprint 2
21	As a tutor, I would like to decide if I am willing to tutor group sessions or not.	5	Completed in: Sprint 2

22	As a student, when I click on a class, I want to see a master calendar displayed showing the timings of all the tutors.	7	Sprint 2
23	As a student, I would like to send a reservation notice to the tutor.	6	Completed in: Sprint 2
24	As a tutor, approve or deny a student's reservation.	10	Sprint 2
25	As a tutor, I can check the maximum and minimum prices.	4	Completed in: Sprint 2
26	As a student, I would like to see which time slots are for group/individual	5	Sprint 2
27	As a student, I would like to see the time of tutors that matches my free time.	6	Completed in: Sprint 2
28	As a student, I would like to be notified when a new tutor signs for a class that I am taking.	6	Sprint 2
29	As a user, I would like to login back to my account created.	2	Completed in: Sprint 1
30	As a user, I would like to logout of my account.	2	Completed in: Sprint 1
31	As a student, I would like to view the tutor's profile {rating, price, bio etc.}.	1	Completed in: Sprint 2
	Total:	152	

Nonfunctional Requirements:

1. The application should be simple to register for.
2. The application should not slow down when accommodating for large numbers of users.
3. The application should protect user data.
4. The application should be intuitive and easy to use.
5. The application should not take up a lot of memory.
6. The platform should have testing and production instances.
7. The approximate expected response time will be 500ms.

Use Cases:

Case Description	Action	System Response
Use Case #1: Create account	Click 'Create Account'	Account creation page loads.
	Enter user information like First Name, Last Name, Password, Password Confirmation, Email address.	
	Click 'Sign Up'	Open 'Landing Page'

Case Description	Action	System Response
Use Case #2: Login Page	Type Email	
	Type Password	
	Click 'Log-In'	Checks login information and goes to Main Page

Case Description	Action	System Response
Use Case #3: View tutors for a course	Select a course from the list on the sidebar on the main page	Show list of tutors for that course

Case Description	Action	System Response
Use Case #4: View tutor's information	Select a tutor from the list of tutors available for a selected course as selected in Use Case 3	Show tutor's schedule in the calendar and also show individual/group sessions
		Show tutor's contact information
		Show tutor's Bio
		Show tutor's average ratings if the student hasn't rated yet the tutor

Case Description	Action	System Response
Use Case #5: Search Function	Type course number in search bar at top of sidebar on main page when the sidebar is displaying the list of courses	The list of courses in the sidebar is narrowed by the search
	Type tutor's name in search bar at top of sidebar on main page when the sidebar is displaying the list of courses	The list of tutors in the sidebar is narrowed by the search

Case Description	Action	System Response
Use Case #6: Edit a student profile	Click on "Student profile" button at bottom right of main page	Student profile page will open
	Drag and drop available times in the calendar	
	Fill out favorite courses	
	Click 'Save' Button	Saves all information to profile
	Click 'Search View Button'	Goes back to student view

Case Description	Action	System Response
Use Case #7: Add a class to the Tutor	Click on "Tutor profile" button at bottom right of main page	Opens tutor profile page
	Click add class button	Pulls up the list of all classes and the search bar
	Search for a course they would like to tutor in course search box	Narrows down the list of classes
	Click on the course they would like to tutor, if it does not exist, click add course button	If the course did not yet exist in the database, add it. Add the course to the list of courses the tutor is tutoring. Notify all students who are currently taking this class.

Case Description	Action	System Response
Use Case #8: Rate a tutor	Navigate to the tutor's profile viewed as in Use Case 4.	
	Click on stars 1 through 5 (1 is low and 5 is high) below the tutor's name	Records the rating, computes average, and displays the rating given by the student

Case Description	Action	System Response
Use Case #9: Edit a tutor's existing class	Click on "Tutor profile" button at bottom right of main page	Opens tutor profile page
	Click on course tutor would like to edit	Opens up a box displaying calendar along with the other tutor's min, max, and average prices and average and personal ratings
	Drag and drop available times in the calendar	
	Fill in the price text box	
	Select group/individual session from the checkbox above calendar	The color in the calendar will change for that slot.
	Click 'Save Button'	Saves all the information to database

Case Description	Action	System Response
Use Case #10: Edit tutor's personal information	Click on "Tutor profile" button at bottom right of main page	Opens tutor profile page
	Fill in bio in a textbox	
	Fill in phone number in a textbox	
	Click save button	Information will be saved in the database.

Case Description	Action	System Response
Use Case #10: Logout	Click on Logout button in the main page	Logouts of the application

Case Description	Action	System Response
Use Case #11: Accepting Sessions	A user selects a time they wish to register with a tutor.	The system emails the tutor, notifying them of the request
		The tutor profile is updated to show another pending request
	Tutor visits their profile	Opens tutor profile page
	Click on the 'Check' or 'Exit' next every request.	
		The request is either accepted or denied.

Case Description	Action	System Response
Use Case #12: Select a course	In the main page, select a particular class from the side drawer	Master calendar displaying the timings of all the tutors for that particular course will be displayed

Case Description	Action	System Response
Use Case #13: Make reservation	In the main page, select a particular time slot from the calendar of the tutor when selected being displayed	Tutor will be notified via email