Sri Lanka Institute of Information Technology

SE3050 – User Experience Engineering

Milestone 07: Implementation

Group: Native Coders

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Github Implementation

Github Link: https://github.com/IT21388934/TutorMe/

Prototype Version 02

Full Prototype Link

https://www.figma.com/file/Usv4uPDQUBHi0N4bQVU3cG/TutorMe-(Version2)?type=design&mode=design&t=CKLuP4SFwCJChV6U-1

Prototype Version 02 – User Feedback
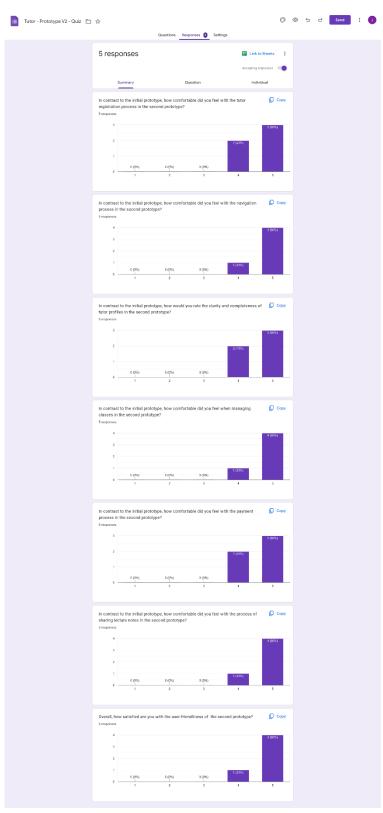
Tutor Questionnaire

Student Questionnaire
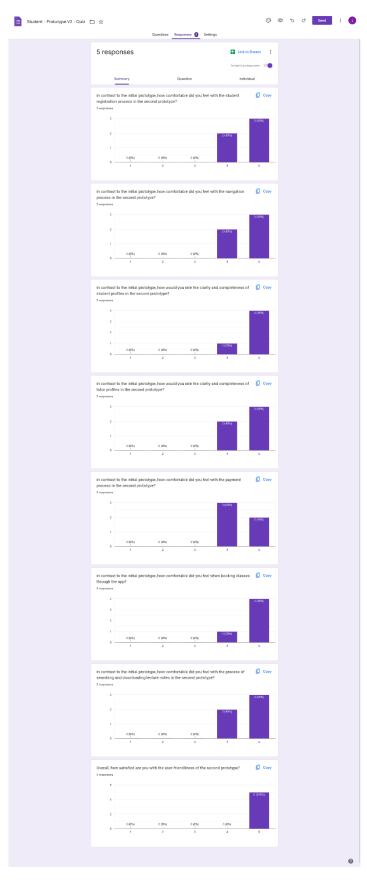
Student - Prototype V2 - Quiz

User feedback for the second prototype.

* Indicates required question

In contrast to the initial prototype, how comfortable did you feel with the student registration process in the second prototype?

	1	2	3	4	5	
Hard	○	○	○	○	○	Easy

In contrast to the initial prototype, how comfortable did you feel with the navigation process in the second prototype? *

	1	2	3	4	5	
Hard	○	○	○	○	○	Easy

In contrast to the initial prototype, how would you rate the clarity and completeness of student profiles in the second prototype? *

	1	2	3	4	5	
Very Bad	○	○	○	○	○	Very Good

In contrast to the initial prototype, how would you rate the clarity and completeness of tutor profiles in the second prototype? *

	1	2	3	4	5	
Hard	○	○	○	○	○	Easy

In contrast to the initial prototype, how comfortable did you feel with the payment process in the second prototype? *

	1	2	3	4	5	
Hard	○	○	○	○	○	Easy

In contrast to the initial prototype, how comfortable did you feel when booking classes through the app? *

	1	2	3	4	5	
Hard	○	○	○	○	○	Easy

In contrast to the initial prototype, how comfortable did you feel with the process of searching and downloading lecture notes in the second prototype? *

	1	2	3	4	5	
Hard	○	○	○	○	○	Easy

Overall, how satisfied are you with the user-friendliness of the second prototype? *

	1	2	3	4	5	
Very Bad	○	○	○	○	○	Very Good

Pre-fill responses, then click "Get link"

Get link   Page 1 of 1

Plan for Data Analysis

Tutor Questionnaire - Results

Student Questionnaire - Results

Test Plan

1. Introduction

- **Purpose**: To ensure the reliability, functionality, and performance of the application.

- **Scope**: This test plan covers functional, usability, security, and performance testing.

2. Test Objectives

- Verify that the app functions as intended.

- Identify and rectify any usability issues.

- Ensure the app is secure and data is protected.

- Assess the app's performance under various conditions.

3. Test Environments

- Devices: Android and iOS smartphones

- Operating Systems: iOS 14 and later, Android 10 and later

- Network: Different network conditions (Wi-Fi, 4G, 3G)

- Various screen sizes and resolutions

4. Test Cases

4.1. Functional Testing

Function	Task
Login and Registration	• Verify that users can register with valid credentials. • Ensure users can log in using registered credentials. • Test for password reset functionality.
Profile Management	• Check if users can update their profiles (name, profile picture, etc.). • Verify that profile information is displayed correctly.
Class Management	• Verify that tutors can create new classes, specifying details such as subject, date, time, and duration. • Verify that tutors can update class details or cancel classes if necessary.
Class Search and Selection	• Test search functionality based on subjects and categories. • Ensure tutors' profiles display accurate information (experience, reviews).
Session Booking and Management	• Confirm that users can schedule and manage sessions with tutors. • Verify that sessions are added to both user's and tutor's calendars.
Payment Integration	• Test payment process for session booking, including adding/removing payment methods. • Verify that tutors can initiate withdrawal requests for their earnings. • Ensure that tutors can view their withdrawal history, including approved, pending, and declined withdrawals. • Verify that payments are processed securely, and receipts are generated.
Feedback and Rating System	• Test the ability to provide feedback and ratings after sessions. • Verify that feedback and ratings are displayed on tutors' profiles.
Study Materials Management	• Verify that tutors can upload study materials (PDFs, documents) to the app. • Confirm that students can access study materials shared by tutors. • Test downloading and viewing of study materials to ensure compatibility.
Study Material Search	• Test the search functionality to find study materials by subject, topic, or tutor. • Verify that search results are accurate and relevant.

4.2. Usability Testing

- Assess the user interface for intuitiveness and ease of use.
- Verify accessibility and compatibility with various devices.
- Evaluate the app's response time for different actions.
- Check if the app provides clear instructions and feedback to users.

4.3. Security Testing:

- Verify data encryption during transmission.
- Ensure secure storage of user data.
- Evaluate user authentication and authorization mechanisms.

4.4. Performance Testing:

- Measure app performance under normal network conditions.
- Test app responsiveness and loading times.
- Evaluate app behavior under heavy loads and concurrent users.
- Assess battery and memory usage during prolonged use.

5. Test Execution

Test case ID: 001	**Test designed by:** Rashen W.G.M
Test title: Testing the Tutor Registration functionality	**Test designed day:** 25/10/2023
Test priority (High/Medium/Low): High	**Test executed by:** Rashen W.G.M
Module name: Login and Registration	**Test executed day:** 27/10/2023
Description: Tutor details are saved only if they pass all validations	
Preconditions (if there are any): None	
Dependencies (if there are any): None	
Test steps: Splash screen -> New user? Sign up -> As Tutor -> Enter details -> Sign up	

Test ID	Test Inputs	Expected Output	Actual Output	Result (Pass/Fail)	Comments
1.1	First name: Dulaj Last name: Rathnayake Email: dulaj.r@gmail.com Contact number: 0781231235 Password: dulaj123 Confirm password: dulaj12345	Display an error message "Passwords do not match"	Display an error message "Passwords do not match"	Pass	All the fields are required, and passwords should match
1.2	First name: Dulaj Last name: Rathnayake Email: dulaj.r@gmail.com Contact number: 0781231235 Password: dulaj123 Confirm password: dulaj123	Registration successful and navigate to the tutor home	Registration successful and navigate to the tutor home	Pass	All the fields are required, and passwords should match

Test case ID: 002	**Test designed by:** Rashen W.G.M
Test title: Testing the Tutor Update Profile functionality	**Test designed day:** 25/10/2023
Test priority (High/Medium/Low): High	**Test executed by:** Rashen W.G.M
Module name: Profile Management	**Test executed day:** 27/10/2023
Description: Tutor details are saved only if they pass all validations	
Preconditions (if there are any): Tutor should be logged into the app with valid credentials	
Dependencies (if there are any): None	
Test steps: Splash screen -> Login -> Profile -> Edit Profile -> Enter details -> Update Profile	

Test ID	Test Inputs	Expected Output	Actual Output	Result (Pass/Fail)	Comments
2.1	First name: Dulaj Last name: Rathnayake Email: dulaj.r@gmail.com Contact number: 0781231235 Gender: male DOB: 12/12/2000 Address: 12/A, Galle Student Id: BM13232243 Year: 3 Semester: 2 Faculty: Computing Specialization: Data Science	Display an error message "Please enter a valid student ID number"	Display an error message "Please enter a valid student ID number"	Pass	All the fields are required
2.2	First name: Dulaj Last name: Rathnayake Email: dulaj.r@gmail.com Contact number: 0781231235 Gender: male DOB: 12/12/2000	Display a successful toast message "Profile updated"	Display a successful toast message "Profile updated"	Pass	All the fields are required

	Address: 12/A, Galle Student Id: IT21246692 Year: 3 Semester: 2 Faculty: Computing Specialization: Data Science				

Test case ID: 003	Test designed by: Siriwardhana S.M.R.R.
Test title: Testing the Add Class functionality	Test designed day: 26/10/2023
Test priority (High/Medium/Low): High	Test executed by: Siriwardhana S.M.R.R.
Module name: Class Management	Test executed day: 28/10/2023

Description: Class details are saved only if they pass all validations

Preconditions (if there are any): Tutor should be logged into the app with valid credentials

Dependencies (if there are any): None

Test steps: Splash screen -> Login -> Home -> My Classes -> Add Class -> Enter details -> Submit

Test ID	Test Inputs	Expected Output	Actual Output	Result (Pass/Fail)	Comments
3.1	Title: Object Oriented Programming Description: Category: Computing Tags: oop, ooc Price: 3000 Duration: 2 Time slots: Monday(12.30 – 2.30)	Display an error message "Class description is required"	Display an error message "Class description is required"	Pass	All the fields are required
3.2	Programming Description: Unleash the power of OOP and take your coding skills to the next level with our new OOP class. Category: Computing Tags: oop, ooc Price: 3000 Duration: 2 Time slots: Monday(12.30 – 2.30)	Display a successful toast message "Class added"	Display a successful toast message "Class added"	Pass	All the fields are required

Test case ID: 004	Test designed by: Siriwardhana S.M.R.R.
Test title: Testing the Update Class functionality	Test designed day: 26/10/2023
Test priority (High/Medium/Low): Medium	Test executed by: Siriwardhana S.M.R.R.
Module name: Class Management	Test executed day: 28/10/2023

Description: Class details are saved during the update process only if they pass all validations

Preconditions (if there are any): Tutor should be logged into the app with valid credentials

Dependencies (if there are any): None

Test steps: Splash screen -> Login -> Home -> My Classes -> Select Class -> Edit -> Enter details -> Update

Test ID	Test Inputs	Expected Output	Actual Output	Result (Pass/Fail)	Comments
4.1	Title: Object Oriented Programming Description: OOP for beginners. Category: Computing Tags: oop, ooc Price: 3000 Duration: 2 Time slots:	Display an error message "One or more time slot is required"	Display an error message "One or more time slot is required"	Pass	All the fields are required
4.2	Programming Description: OOP for beginners. Category: Computing Tags: oop, ooc Price: 3000 Duration: 2 Time slots: Tuesday(14.30 – 16.30), Friday (13.30 – 15.30)	Display a successful toast message "Class updated"	Display a successful toast message "Class updated"	Pass	All the fields are required

Test case ID: 005	**Test designed by:** Kumanayake I. A.
Test title: Testing the Request Session functionality	**Test designed day:** 26/10/2023
Test priority (High/Medium/Low): High	**Test executed by:** Kumanayake I. A.
Module name: Session Booking and Management	**Test executed day:** 28/10/2023
Description: A session request can be made only if the user provides correct details	
Preconditions (if there are any): Student should be logged into the app with valid credentials	
Dependencies (if there are any): None	
Test steps: Splash screen -> Login -> Home -> Search -> Select class -> Request Session -> Enter details -> Submit	

Test ID	Test Inputs	Expected Output	Actual Output	Result (Pass/Fail)	Comments
5.1	Date: 31/10/2023 Time slot: 12.30 – 14.30 Reason: Number of students: 2 Mode: Online	Display a red color asterisk in front of reason label to indicate it is required	Display a red color asterisk in front of reason label to indicate it is required	Pass	All the fields are required
5.2	Date: 31/10/2023 Time slot: 12.30 – 14.30 Reason: Need assistance with OOP concepts for the upcoming exam Number of students: 2 Mode: Online	Display a successful toast message "Session request made"	Display a successful toast message "Session request made"	Pass	All the fields are required

Test case ID: 006	Test designed by: Kumanayake I. A.
Test title: Testing the Make Payment functionality	Test designed day: 26/10/2023
Test priority (High/Medium/Low): High	Test executed by: Kumanayake I. A.
Module name: Session Booking and Management	Test executed day: 28/10/2023

Description: A payment can be made only if the user provides valid card details

Preconditions (if there are any): Student should be logged into the app with valid credentials. A previous session requested by the student should be accepted by the tutor.

Dependencies (if there are any): None

Test steps: Splash screen -> Login -> Profile -> My Sessions -> Filter by "accepted" status -> Select class -> Pay

Test ID	Test Inputs	Expected Output	Actual Output	Result (Pass/Fail)	Comments
6.1	Card number: 4242424242424242 Expiration: 6/22 CVC: 333	Display an error message "Your card's expiration year is invalid"	Display an error message "Your card's expiration year is invalid"	Pass	All the fields should be valid
6.2	Card number: 4242424242424242 Expiration: 8/24 CVC: 333	Display a successful toast message "Payment successful"	Display a successful toast message "Payment successful"	Pass	All the fields should be valid

Test case ID: 007	Test designed by: Kumarathunga S. A. D. S.
Test title: Testing the Add Study Material functionality	Test designed day: 26/10/2023
Test priority (High/Medium/Low): High	Test executed by: Kumarathunga S. A. D. S.

	Module name: Study Materials Management		Test executed day: 28/10/2023

Module name: Study Materials Management   **Test executed day:** 28/10/2023

Description: Study material can be added only if all the details are provided

Preconditions (if there are any): Tutor should be logged into the app with valid credentials

Dependencies (if there are any): None

Test steps: Splash screen -> Login -> Profile -> Study Materials -> Add Study Material -> Enter details -> Submit

Test ID	Test Inputs	Expected Output	Actual Output	Result (Pass/Fail)	Comments
7.1	Title: English Grammar Description: Category: English Document: EnglishShortNote.pdf	Display an error message "Description is required"	Display an error message "Description is required"	Pass	All the fields are required
7.2	Title: English Grammar Description: English grammar notes Category: English Document: EnglishShortNote.pdf	Display a successful toast message "Study Material added"	Display a successful toast message "Study Material added"	Pass	All the fields are required

Test case ID: 008	**Test designed by:** Kumarathunga S. A. D. S.
Test title: Testing the Download Study Material functionality	**Test designed day:** 26/10/2023
Test priority (High/Medium/Low): High	**Test executed by:** Kumarathunga S. A. D. S.
Module name: Study Materials Management	**Test executed day:** 28/10/2023
Description: Study material can be downloaded only if the download location is selected.	
Preconditions (if there are any): Student should be logged into the app with valid credentials	
Dependencies (if there are any): None	
Test steps: Splash screen -> Login -> Home -> Study Materials -> Select Study Material -> Download	

Test ID	Test Inputs	Expected Output	Actual Output	Result (Pass/Fail)	Comments
8.1	-	Display an error message "Please select a download location"	Display an error message "Please select a download location"	Pass	Download location should be selected
8.2	Select a download location	Display a successful toast message "Study Material downloaded"	Display a successful toast message "Study Material downloaded"	Pass	Download location should be selected

6. Test Results

User	Test case	Result
Student	Registration	✓
	Login	✓
	Search class	✓
	View class details	✓
	Request Session	✓
	View my sessions	✓
	Filter sessions based on status	✓
	View session details	✓
	Edit session (only for pending sessions)	✓
	Cancel session (only for pending sessions)	✓
	Pay for accepted session	✓
	Rate session (only for completed sessions)	✓
	Search study materials	✓
	Preview study material	✓
	Download study material	✓
	Edit profile	✓
	Logout	✓
Tutor	Registration	✓
	Login	✓
	View my classes	✓
	Add class	✓
	Edit class	✓
	Delete class	✓
	Filter session requests	✓
	View session request	✓
	Accept session request (only for pending sessions)	✓
	Reject session request (only for pending sessions)	✓

	Send session information (location/link) (only for booked sessions)	✓
	View personal calendar	✓
	Add calendar event	✓
	Edit calendar event	✓
	Delete calendar event	✓
	View my study materials	✓
	Search study material	✓
	Add study material	✓
	View study material	✓
	Edit study material	✓
	Delete study material	✓
	View wallet	✓
	View payment methods	✓
	Add payment method	✓
	Edit payment method	✓
	Delete payment method	✓
	Make a withdrawal	✓
	View past transactions	✓
	Edit profile	✓
	Logout	✓

- The user interface of the app was intuitive and easy to use. Test users navigated through the app without significant issues, finding features and functions effortlessly.

- The app was accessible and compatible with a wide range of devices (iOS and Android smartphones). No major compatibility issues were identified.

- The app demonstrated satisfactory response times, with an average of 2 seconds, for various actions, such as loading pages, sending messages, and accessing study materials. Users did not experience excessive delays.

- The app provided clear and user-friendly instructions and feedback to users. Users received informative messages and prompts, enhancing their understanding of app features and actions.

- User data was securely stored, and no vulnerabilities related to data storage were identified. Data was protected against unauthorized access.

- User authentication and authorization mechanisms were effective and well-implemented. Users could access their accounts securely and only perform authorized actions.

- The app's performance under normal network conditions was satisfactory. Users experienced minimal issues related to network performance.

- The app performed well even under heavy loads and concurrent users. It showed scalability and maintained reasonable response times.

- The app's battery and memory usage during prolonged use were within acceptable limits. Users did not report excessive battery drain or memory-related issues.

7. Conclusion

Although the initial testing has yielded positive results in terms of functionality, usability, security, and performance, it's important to note that software testing is an ongoing process. Further testing can be performed to continually enhance and validate the app's functionality to ensure it meets the intended standards and requirements.