**SE3050 – User Experience Engineering**

**Lab 4**

**User Research Plan**

**Group ID: 2021S2\_REG\_WE\_58**

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**Introduction**

The Mobile Application selected by the group for the project under the module SE3050 - User Experience Engineering is “Trains - Sri Lanka”. User research was conducted to check the usability of the application by general people. The purpose of testing is to check whether the application is in line with the functions, features, and overall purpose with the wants of the users. User experience is one f the key elements of the product as it is very essential at the selling point. By conducting user testing it can save time and money in the execution stage as well as it is easy to validate, and adjunct features based on hard data. It will also ensure the success of the product before launching it to the market.

**Test Objectives**

* The goal is to identify any usability problems, collect qualitative and quantitative data and determine the participant's satisfaction with the product. To run an effective usability test, you need to develop a solid test plan, recruit participants, and then analyze and report your findings.
* Learn if participants can complete specified tasks successfully and identify how long it takes to complete set tasks.
* Find out how satisfied participants are with our expected outcome and the current product.
* Identify changes required to improve user performance and satisfaction.
* And analyze the performance to see if it meets your usability objectives.

**Methodology**

The user research is conducted under three stages: an interview recorded and then through another questionnaire.

For the interview and video recording stages, 2 users were contacted through friends and colleagues. With their consent a ZOOM video call was taken and then it was recorded for the analysis purpose.

**Interviewing**

First, the group members discussed the main functions of the existing app and made questions regarding its usability. Then questions regarding functions to be added and questions to check the user’s idea on certain features were added.

After considering all these factors an interview script was made with time allocation for each question and dividing the questions to ask among the members.

The 2 users were contacted, and a meeting was arranged. Due to the ongoing pandemic in the country, a virtual meeting was set up in order to conduct the interview.

A time of one hour was allocated to each user.

During the virtual meeting, each user faced a series of questions which are included in the interview script which is attached below.

**Interview Script**

|  |  |  |
| --- | --- | --- |
| **Duration in minutes** | **Task** | **Interviewed by** |
| **5** | **Introduction** | |
| 2 | Welcome candidate, introducing the interview panel and purpose of the interview | Vinuri | Tiran |
| 2 | Allow the candidate to introduce themselves   * Age * Designation * Technical expertise and background | Vinuri | Tiran |
| 1 | Question the candidate regarding their user experience of the App |  |
|  | * Have you used the app before? | Rikas |
| **16** | **Questions about the current app** | |
| 1 | How often have you used the app? | Rikas |
| 1 | What was your first impression of the app? | Sanda |
| 1 | How satisfied are you with the look and feel of the app? | Sanda |
| 1 | What do you think about the colour scheme and the font used? | Sanda |
| 1 | How did you find the language and terminology used? | Sanda |
| 3 | What are the activities you performed through the app?   * Search train schedule * View options * View train schedule * View station timetable * Recent Search * Share details | Vinuri | Tiran |
| 1 | Were the available options useful and accurate? | Vinuri | Tiran |
| 1 | Were you satisfied with the data? | Vinuri | Tiran |
| 3 | Which of the issues below was the biggest problem during your experience with the app?   * The Interfaces are monotonous and unattractive. * All necessary details regarding a ride are not given. * The navigation bar is only available on the home page. * UI performance issues. | Tiran | Vinuri |
| 2 | Did you notice any other issues apart from the ones we mentioned before? | Rikas |
| 1 | Rate the overall experience of the app from 1 - 10  (1 being the worst and 10 being the best) | Rikas |
| **7** | **Questions on improvements to be made** | |
| 1 | What did you expect when you first heard about the app? | Rikas |
| 2 | Any new features you would like to see? | Rikas |
| 3 | These are few features we are planning on adding. What are your thoughts about them?   * User management * Real-time GPS tracking * Trip Planner * Alert system to notify delays or unavailability of a train * Better onboarding experience | Vinuri | Tiran |
| 1 | Rate the expected outcome after revamping the app from 1 - 10 (1 being the worst and 10 being the best) | Vinuri | Tiran |
| **2** | **Conclusion** | |
| 2 | Thank the candidate for their time and contribution | Vinuri | Tiran |
| **30** | **Evaluation: Discussion of Interview Observations** | |

Interview recording link: <https://drive.google.com/file/d/1gb0i-ToRNOejSnDQJ4wGoTdZQSGM8W_4/view?usp=sharing>

**Video recordings**

Here the users were given a task to be fulfilled using the app.

From the task, their facial expressions and body language were observed.

The link to the video recording: <https://drive.google.com/file/d/1JyVPepgSEhGgDAlqdNcMKAuGUZFbvGBc/view?usp=sharing>

**Questionnaire**

A questionnaire using google forms was made which covers every function of the app. Here the people who take part can be new users, regular users or people who have never used the app before.

From the collected data it can be analyzed to see how users find the physical appearance and feel of the app.

Google form distributed among users: <https://forms.gle/X6mfchX6j3XLV3nM8>

**Participant Profiles**

The table below provides a breakdown of the participants selected for testing:

|  |  |  |
| --- | --- | --- |
| Name | Demography | Location, Date and Time |
| Shashini Hewadewa | Age - 23  Gender - Female  Occupation - University Student  One Time User | Online Meeting,  2021-08-27  6.00 PM |
| Uchitha Wickramarathne | Age - 25  Gender - Male  Occupation - Business Analysis  Regular User | Online Meeting,  2021-08-27  7.00 PM |

**User Research – Tasks/Scenarios**

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Task Instruction** | **Target** | **Probes** |
| **1** | Select the station and the destination, then enter a date and time.  Click on search.  From the options, you receive to select the kebab menu (three dots) and share the option through WhatsApp with a friend | To check how the user navigates through the app by understanding the functions of the app. |  |
| **2** | Go to recent searches, select your option and from the kebab menu select “View Schedule of …….”  From the station, the schedule selects a route and then selects the train schedule. | To check how the user navigates through the app by understanding the functions of the app. |  |

**Plan for Data analysis**

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| --- |
| **Interview**  The interview questions were structured as UI related and functionality related.  Watched the recorded interviews thoroughly and noted down their responses.    By comparing the responses given by the 2 users, the team members came to conclusions and summarized the details to be added to the revamped app.   * To change the used colour scheme. * To add a navigation bar * To maintain a user profile * GPS tracking etc. |
| **Video Recording**  Here we calculated the time taken for the user to complete the said task.  And their body language was observed.  Whether the user was confused or was it difficult to complete the task. |
| **Questionnaire**    From the circulated google form the group members were able to get 25+ responses.  Using pie charts and bar charts the responses were compared and had used for quantitative analysis.  Responses of the questionnaire:  <https://docs.google.com/spreadsheets/d/1W-PInxgne7BgSvv5ogvuRjLqE7jV8tsue5ymwp0oRaE/edit?usp=sharing>  Forms response chart. Question title: Gender. Number of responses: 26 responses.  Forms response chart. Question title: What is your age group?. Number of responses: 26 responses.  Forms response chart. Question title: What is your designation?. Number of responses: 26 responses.  Forms response chart. Question title: How often do you use public transportation?. Number of responses: 26 responses.  Forms response chart. Question title: Have you ever used Trains - Sri Lanka App?. Number of responses: 26 responses.  Forms response chart. Question title: How often do you use the Trains - Sri Lanka App?. Number of responses: 25 responses.  Forms response chart. Question title: For what purposes do you mostly use this app?. Number of responses: 25 responses.  Forms response chart. Question title: Is the App User-friendly?. Number of responses: 26 responses.  Forms response chart. Question title: Is the App easy to navigate?. Number of responses: 26 responses.  Forms response chart. Question title: In which areas of the app is having more issues?. Number of responses: 26 responses.  **Forms response chart. Question title: What other features do you think should be added?. Number of responses: 26 responses.**  **Forms response chart. Question title: Rate your experience about the Trains - Sri Lanka app ?. Number of responses: .**  Comments added by few responders:   * This app should develop more than its current appearance * The app is so bad, Expect more from it * It is taking too much time to load * Too many ads pop up when opening the app * Search options are good but all on the same page, can't identify which option should I want to select a very bad app. Take too much time to load |