# SE3050 – User Experience Engineering

## Lab Sheet 4

Plan and conduct user research.

**CODE365 | 2021REG-WE-44**

**Submitted by:**

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| **Registration No** | **Name** |
| IT19115894 | Jayasekara J.T.N.N. |
| IT19184272 | R.H. Gunasekera |
| IT19046594 | Sachintha Nipun M.M |
| IT19177410 | Madhura Mihiranga H.N |

**Introduction**

This project is based on redesigning an existing mobile application to enhance the user interfaces and user experience of the application. The mobile application we have chosen is Lak.lk mobile application. This is an advertising app. The app enables the users to post advertisements, and view advertisements. In order to improve the user interfaces and the user experience of the existing application we must wear the customer's hat. To conduct a user centric development, we need to test the existing application with the involvement of the user. In this user research we will test the application on its functionalities, the user understandability of the functionality flows, user understandability of the performance of the interfaces, usage of the existing functionalities, falling points of the functionality flows and identify the functionalities which are already working well with users. Through testing the application with the users, we hope to understand how user thinks and looks at each of the functions provided by the application, how far the functions have been useful to users, what are the bad experiences they face while using the application and what will be the improvements or changes that user feels to see in the application. We are conducting a user research and all the data will be gathered and analyzed well in the aim of making our decisions on the changes needed to be done to application in functional wise as well as design wise.

**Test Objective**

* Usability testing let our design and development team to identify the problems of the existing mobile application and redesign with the changes needed. Some of the main objectives of our testing are as follows,
* Learn if participants can complete specified tasks successfully and identify how long it takes to complete specified tasks.
* Identify the difficulties users are facing while they perform a task.
* Understand what are the thinking patterns of the users, when they perform the tasks.
* Find out how satisfied participants are with existing application.
* Identify changes required to improve user performance and satisfaction.
* Analyze the gathered data and apply new designs and do needed implementation.

**Methodology**

For the usability testing, four (04) participants were chosen according to the users selected for the personas. They are a graphic designer, a doctor, a businessman, and an actor. First, they were delivered a brief introduction about the specifications that are going to perform in the usability testing and they were asked to download and install LAK.LK Application in their mobile phone for better experience of the application to the participant. Since all four (04) usability testing was conducted through zoom meetings, it was convenient to collect all data, ideas, and to identify the feelings and the real expressions about the application and everything easily can be screen recorded rather than having this usability testing physically with the participant. Therefore, usability testing was conducted most appropriately.

Since the covid pandemic situation, all the interviews were conducted while staying at home using online platforms.

**Interviewing (Script)**

The participants' responsibilities will be to attempt to complete a set of representative task scenarios presented to them in as efficient and timely a manner as possible, and to provide feedback regarding the usability and acceptability of the user interface. The participants will be directed to provide honest opinions regarding the usability of the application, and to participate in subjective questionnaires. A flow of questions applies to all four (04) participants, was used in the interviews. Before the usability testing process was initiated, the participants were explained and well guided on what usability test is and how it goes. Since all four usability tests were conducted through online platforms, it was convenient for us to make this usability testing success.

**Following is the** **interview script.**

**First Interview Script**

**Introduction**

Thank you for taking the time to talk to us today. We are undergraduate students at SLIIT. We are doing a user research on Lak.lk mobile application. We will start with some questions and we will use the feedback we get from you to improve our application. So, please share your honest thoughts as we go along. Do you have any questions for me before we get started? Before we begin, could I just confirm that you’re still okay with this session being recorded? Could you please try out the application on shared screen while sharing your thoughts? Nice! We will start the questions now.

**Warm Up**

1. How are you doing today?

**Topic specific.**

1. How long are you using this app?
2. How often you use this app?
3. Can you find path to login to the application?
4. Can you please perform the registration task?
5. Have you find any difficulties with the registration process?
6. Can you please logout from the application?
7. Are you okay without a logout option?
8. Assume you’re going to buy something, are you satisfied with viewing advertisement?
9. So do you prefer to view the image of the advertisement?
10. Can you click on an add and view more details?
11. Are you satisfied with viewing advertisement?
12. What are the main information you like to be highlighted when viewing the advertisement before buying?
13. Did the advertisement fulfill your expectation?
14. Can you please show us how you will post an add?
15. Do you like to have a step by step procedure or to fill by scrolling down?
16. Assume you need to see the reviews. Will you please show us how you perform it.
17. Do you find any difficulties without having reviews?
18. Assume you need to give rating. In which way would you like to rate?
19. How your experience on giving rating different?
20. How often will you give rating to a company?
21. Are you satisfied with the user friendliness of this application?
22. What features would you like to be improved?
23. Are there any features you would like to remove from this application?
24. How is your over all experience about the application?
25. Anything else you would like to add?

**Warm Up**

Thank you very much for taking the time to speak with us. We’ll be sharing your thoughts with our team. We are trying to improve our application and your contribution today has been really valuable.

Thanks again for your support!

**Second Interview Script**

We are a team of undergraduate students in “Sri Lanka Institute of Information Technology (SLIIT)” pursuing BSc in Information Technology specializing in Software Engineering degree program. The purpose of this questionnaire is to redesign and develop the lak.lk mobile advertising application by gathering information from you on the user experience gained while using the Lak.lk mobile application.

**Common questions**

1. Can you give us a brief introduction about you?
2. How did you discover about this application?
3. What is your major reason to use this application?
4. How long are you using the app?
5. How often you use this app?
6. What is the phone you are using (Android / iPhone)?

**Questions related to due registration and login**

1. How is your experience on the registration process of the application?
2. Do you face any issues when login and logout to the app?
3. What kind of functionalities you are using from this app ?

**Questions related to product advertisement**

1. Post Product Advertisements Post Company Advertisements View Advertisements
2. Did you posted any advertisement to the application?
3. Do you face any difficulties when posting an ads ?

**Questions related to company advertisement**

1. Did you try out company advertisement part of this application?
2. When you are focusing of company ads, what kind of details need to be highlighted?
3. When you click the location of the company you are redirecting to the maps. What do you think about that functionality ?
4. Did you face any difficulty with the flow of posting a new company advertisement?

**Questions related to customer reviews**

1. How important is the review / rating of a company, when you choose a company?
2. How often do you give feedback to a company?
3. which way do you like to give a feedback to a company?
4. If company advertisements are categorized, In which way do you like to filter the ads?
5. How is your overall experience with this system?

**Video recording**

The facilitator will brief the participants on the mobile application and instruct the participant that they are evaluating the application, rather than the facilitator evaluating the participant. Participants will informed acknowledges: the participation is voluntary, that participation can cease at any time, and that the session will be screen recorded but their privacy of identification will be safeguarded. The facilitator will ask the participant if they have any questions. UIs of the application will be displayed on the screen while conducting the interview with the participant for the convenient of the participant. The facilitator will instruct the participant to ‘think aloud’ so that a verbal record exists of their interaction with the mobile application.

**Questionnaire**

<https://forms.gle/KunGf5L3pVPJi5Gn8>

Graphical user interface, application

Description automatically generated

Graphical user interface, application

Description automatically generated

Graphical user interface, text, application

Description automatically generated

Graphical user interface, text, application, email

Description automatically generated

Graphical user interface, text, application

Description automatically generated

Graphical user interface, text, application

Description automatically generated

**Participant Profiles**

|  |  |  |
| --- | --- | --- |
| **Name** | **Demography** | **Location, Date and Time** |
| Amali Mallawaarachchi | Law student  at Sri Lanka Law college. | Online interview via zoom.  At 9 pm  On August 27, 2021 |
| Hemal Ranasinghe | Actor | Online interview via zoom  At 7 pm  On August 24, 2021 |
|  | Medical Officer at Kurunegalla hospital. | Online questionnaire |
|  | Accountant at Bank Of Ceylon. | Online questionnaire |
|  | Graphic designer at wijey Graphy. | Online questionnaire |
|  | Entrepreneur | Online questionnaire |

**User Research – Tasks/Scenarios**

|  |  |  |  |
| --- | --- | --- | --- |
| NO | **Task Instruction** | **Target** | **Probes** |
| 01 | Can you find path to login to the application? | Identify whether user can easily accessible to the application. | Was it easily find? |
| 02 | Can you please perform registration process. | See whether it’s process convenient to the user. | Have you find any difficulties with the process.? |
| 03 | Can you please logout from the application? | See whether user is okay without a logout option. | Are you okay without a logout option? |
| 04 | Assume you’re going to buy something, are you satisfied with viewing advertisement? | Identify whether the user can understand the design of the interfaces. | So do you prefer to view the image of the advertisement? |
| 05 | Can you click on an add and view more details? | Identify whether user has a good knowledge on the process. | Are you satisfied with the information given? |
| 06 | What are the main information you like to be highlighted when viewing the advertisement before buying. | To clarify whether user can find those out. | Did the advertisement fulfill your expectation? |
| 07 | Can you please show us how you will post an add? | To identify whether user have a good knowledge on the process. | Do you like to have a step by step procedure or to fill by scrolling down? |
| 08 | Assume you need to see the reviews. Will you please show us how you perform it. | To find out that, if it is okay without reviews. | do you find any difficulties without having reviews? |
| 09 | Assume you need to give rating. In which way would you like to rate? | To find out that, if it is okay to not have a rating process. | How your experience on giving rating differ? |
| 10 | When you are focusing of company ads, what kind of details need to be highlighted? | Name of the company, location and the contact details. | User was searching  for the contact details of the company but there was only the company name. |
| 11 | When you click the location of the company you are redirecting to the maps. What do you think about that functionality ? | Much easier to find the exact location | User was trying to find location using map but there were some trouble. |
| 12 | How do feel when you are posting a new company advertisement? | Posting an advertisement easily. | User couldn’t find a way post a new company advertisement. |
| 13 | How important is the review / rating of a company, when you choose a company? | Much easier to find the best company. | User couldn’t find descriptive feedbacks about the companies. |
| 14 | which way do you like to give a feedback to a company? | By answering some questions. | Users can only provide feedback using the star rating. |
| 15 | If company advertisements are categorized, In which way do you like to filter the ads? | By districts and type. | User was searching for a category filter. But it is not provided. |

**Plan for Data analysis**

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| **Interviews**  **First Interview Recording link:**  <https://drive.google.com/file/d/1jIPLqOUB830nKVLIjXTWmgOo65_vY3Th/view?usp=sharing>    **Second Interview Recording link:**  <https://drive.google.com/file/d/1KsqTOSGmoop3KgjgBfcal92MnUZPB_Z5/view?usp=sharing>  **Qualitative/ Quantitative Collected Data**  *Interview Questions and Given Answers*  **First Interview**    Introduction  Hi Amali,  Thank you for taking the time to talk to us today!  My name is Hansani!  My name is Nilupul!  We are undergraduate students at SLIIT.  We are doing a user research on Lak.lk mobile application.  We will start with some questions and we will use the feedback we get from you to  improve our application.  So, please share your honest thoughts as we go along.  Do you have any questions for me before we get started?  Right now, no questions. If I have, I will ask.  Before we begin, could I just confirm that you’re still okay with this session being  recorded?  Okay  Could you please try out the application on shared screen while sharing your thoughts?  Okay. I will.  Nice! We will start the questions now.  Warm Up    01)How are you doing today?  I’m doing well. Thank you!    Topic specific  02)How long are you using this app?  For about a week.  03)How often you use this app?  Two or three times.  04)Can you find path to login to the application?  Yeah wait, I’ll click on My Account. Nothing happened. I’ll click on settings. There it is.  05)Can you please perform the registration task?  Okay I will. I’ll type name as Amali Mallawaarachchi and the number. Then click on get code.  So I received the code. I will type it now. Then click on verify code.  06)Have you find any difficulties with the registration process?  No, it was okay.  07)Can you please logout from the application?  I’ll check it at My Account. There’s no such thing. Then I’ll check in settings. So I think I can’t  find any place to logout from this.  08)Are you okay without a logout option?  No, I think there must be some place to logout.  09)Assume you’re going to buy something, are you satisfied with viewing advertisement?  As I see, we can’t load the photos easily. We can only see the description. So I think it has an  issue.  10)So do you prefer to view the image of the advertisement?  Yeah. It will be helpful.  11)Can you click on an add and view more details?  So I’m going there. But still I can’t see the photos.  12)Are you satisfied with viewing advertisement?    Over all it’s good. The main thing I saw was we can’t see the photos.  13)What are the main information you like to be highlighted when viewing the advertisement  before buying?  So the main points are company name. I think it’s something about the reputation. So it’s  very important, and the location, contact details and the price of item we are going to buy.  Yeah those things.  And I forgot another main thing is the ratings. I usually check for the ratings.  14)Did the advertisement fulfill your expectation?  No. It’s not.  15)Can you please show us how you will post an add?  Okay, so I need to fill a lengthy form. It’s asking to select category, fill add title, add  description, price, location and to upload images.  So I don’t see any big issues with posting new advertisement. I think it’s all right.  16)Do you like to have a step by step procedure or to fill by scrolling down?  I think it will be more convenient to have a step by step procedure rather than scrolling  down and down.  17)Assume you need to see the reviews. Will you please show us how you perform it.  I’m going to click on an add then I’ll check by category. But still I’m unable to find a place to  give reviews.  18)Do you find any difficulties without having reviews?  Yeah mostly I see reviews before purchase. Because it gives a rough idea about the  customer satisfaction.  19)Assume you need to give rating. In which way would you like to rate?  As a comment or giving stars.  20)How your experience on giving rating differ?  After my item was received, I usually give a rating by stars out of five. If the item was not  in the level of expectation I also will put a comment there.  21)How often will you give rating to a company?  When I receive my purchased item usually I will definitely give a rating.  22)Are you satisfied with the user friendliness of this application?  Actually I see that it is not that user friendly. I think it needs to be approved.  23)What features would you like to be improved?  Mainly logout function. The first issue that I saw was that.  Then we can’t load the photos of any advertisements. So that was a issue that need to  be improved.  Actually the interfaces are not that much user friendly.  They are the things that need to be improved.  24)Are there any features you would like to remove from this application?  Yeah I saw some where there are many lengthy unnecessary reading materials. I think  they need to be removed and they are some kind of obstacles when viewing the  advertisement.  25)How is your aver all experience about the application?  Over all it’s a good app. But there are some faults and that need to be improved. But this  is a very important app. You can find anything at anywhere that you want using this app.  26)Anything else you would like to add?  No.  These are all our questions.  Wrap Up  Thank you very much for taking the time to speak with us.  We’ll be sharing your thoughts with our team.  We are trying to improve our application and your contribution today has been really  valuable.  Thanks again for your support!  **Second Interview**    Introduction  Thank you for taking the time to talk to us today!  My name is Sachintha,  My name is Madhura,  We are a team of undergraduate students in “Sri Lanka Institute of Information Technology (SLIIT)” pursuing BSc in Information Technology specializing in Software Engineering degree program. The purpose of this questionnaire is to redesign and develop the lak.lk mobile advertising application by gathering information from you on the user experience gained while using the Lak.lk mobile application.So, please share your honest thoughts as we go along.  Warm Up  Can you give us a brief introduction about you?  Hello, good to meet you. I am Hemal Ranasinghe. Currently I am working in the film industry    Topic specific     1. How long are you using the app?   I have been using app for a considerable time, may be more than 8 months   1. How often you use this app?   I use this app very often since I am interested in vehicles   1. How is your experience on the registration process of the application?   I found no difficulty in the registration process   1. Do you face any issues when login and logout to the app?   Yeah   1. can you explain about it?.   I still cant a find a way to log out   1. What kind of functionalities you are using from this app ?   Most of the times, I refer seeking out advertisements of vehicles   1. Did you posted any advertisement to the application?   yes   1. Do you face any difficulties when posting an ads ?   Yeah there were some difficulties   1. can you explain about it?.   The system is requesting a lot of details which seems to be unwanted   1. Did you try out company advertisement part of this application?   Yeah. I did   1. When you are focusing of company ads, what kind of details need to be highlighted?   I would prefer details such as name of the company, location and the contact details   1. When you click the location of the company you are redirecting to the maps. What do you think about that functionality ?   It is indeed a very good functionality, since it’s much easier to find the exact location   1. How important is the review / rating of a company, when you choose a company?   It is very important to have a proper idea about the organization whether it is legitimate or not   1. How often do you give feedback to a company?   It depends on the occasion. If I am free I would give.   1. In which way do you like to give a feedback to a company?   I would prefer multiple choice questions   1. Did you face any difficulty with the flow of posting a new company advertisement?   Yes   1. can you explain about it?.   I cant find a way to post new ads.   1. If company advertisements are categorized, In which way do you like to filter the ads?   It would be better if it can be categorized by districts.   1. How is your overall experience with this system?   It is okay, though there are some errors and bugs in the system, it gets the work done. The most troubling fact is that sometimes the images of the ads are not visible  Wrap Up  Thank you . Hope you have gathered out what u need.  **Detailed analysis plan**  After receiving all those feedbacks from the users. We decided to enhance the user experience by following the suggestions of the users. Therefore, we measurements we took was,   1. Since there was a company advertisement part in the app but users couldn’t find a way to post new company advertisement. We need to add that functionality to the system. 2. Users couldn’t filter the company advertisements. We need to categorize the ads (by district/type) and implement that function to the system. 3. The existing app is displaying only name of the company in the list. But users need to find the descriptive details of the company. We decided to redesign the whole company details UI by displaying descriptive details of the companies and location using the google maps. 4. Users like to see the feedbacks of the companies, so that they can find the best company relevant to their requirements. In here users couldn’t find descriptive feedbacks about the companies. We decided to redesign the user review/feedback UI. 5. Since most of the users doesn’t like to give feedback by typing description. So we have decided to implement the feedback form with the multiple choice questions. 6. Since homepage was not attractive according to our users and they cannot see the images of the advertisements. 7. Registration process of the app was complicated. 8. Users couldn’t find a way to logout after they logged in to the system. 9. User account details page UI was not attractive.   **Questionnaire**   * <https://forms.gle/KunGf5L3pVPJi5Gn8>   **<<Qualitative /Quantitative Collected Data>>**  **Chart, bar chart  Description automatically generatedChart, pie chart  Description automatically generatedChart, pie chart  Description automatically generatedChart, pie chart  Description automatically generatedGraphical user interface, application  Description automatically generatedChart, pie chart  Description automatically generatedChart, pie chart  Description automatically generatedChart, pie chart  Description automatically generatedChart, pie chart  Description automatically generatedChart, pie chart  Description automatically generated**  **<<Details Analysis plan>>**   * From the first four questions we are trying to find what kind of people are reacting to this survey. * Question 5,6 we are going to figure out the registration flow and sign in/sign out process. * From question 7-10 we are trying to get the information about the product advertisements. * Q11- Q14 We are going to figure out the company advertisements part. And we have found lot bugs on this part and we are going to fix those issues. * From question 15-18 We are going to figure out the importance of the user feedback. And we are going to implement some new function for this part. * Q19-Q24 We are trying to gather the information about the overall functionalities of the application. And we are expecting to improve the user experience of the app according to the user requirements. |