



## Group SEJ022

Legal Advisor

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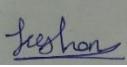
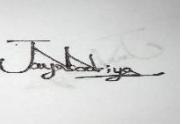
SEJ022

User Experience Engineering SE3050

Department of Computer Science and Software Engineering, Faculty of Computing, Sri Lanka  
Institute of Information Technology (SLIIT)

## Declaration

We declare that this is our own work, and this report does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any other university or institute of higher learning, and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgment is made in the text. Also, we hereby grant to Sri Lanka Institute of Information Technology the non-exclusive right to reproduce and distribute our report in whole or part in print, electronic, or another medium. We retain the right to use this content in whole or part in future works (such as articles or books).

Student No.	Name	Date	Signature
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## Abstract

Currently, there is a growing demand for legal-related services, a growing level of legal consultation business, and a growing level of public legal awareness. It is challenging to adjust traditional legal consultation business processing techniques to the needs at hand. Given that smartphone applications are now widely used, the software system for the legal consultation industry was developed using the smartphone platform. For the development strategy with a wide range of market potential. Based on this, the author's extensive legal experience is combined in this paper, which also examines the current state of the legal consulting industry in Sri Lanka, investigates and studies various types of legal consulting firms, and creates a mobile legal consultation system using the Android mobile phone platform.

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## 1 Introduction

"Peace, justice, and strong institutions are the cornerstones of sustainable growth." This was a crucial aspect that was missed during the rushed MDG formulation. The rule of law is the belief that everyone, including the government and other official entities, should be held accountable for their acts and that a nation should be ruled by the law. So, we thought, individuals ought to be made aware of the legislation. So, we put in place a law-related application. This is the most effective technique to inform people of the law. With the help of this application, users can ask questions about the law and easily receive answers. People can also read legal-related e-books and articles using this program. In addition to these items, we inform the public about advertisements and events relating to the law. If they want to join these events they can participate in these events and learn about law. They can also expand their legal expertise.

We utilized react native with expo for this application that deals with law. And our database was Firebase. We chose to use React Native in conjunction with Expo to construct our mobile application because it is free, open source, and offers direct API access. We can also locate a lot of resources relating to the React Native Expo.

## 2 Background

### 2.1 SDG selection

"The foundations of sustainable growth are peace, justice, and strong institutions." This important detail was overlooked during the hurried MDG formulation. The idea that everyone, including the government and other official entities, should be held responsible for their actions and that a country should be governed by the law is known as the rule of law. We therefore reasoned that people need to be made aware of the law. So, we implemented a legal application. The best method for educating people about the law is this one. Users can ask questions about the law using this app and quickly get their questions answered. Using this program, people can read books and articles about law. In addition to these things, we let people know about legal advertisements and events. They can take part in these events and learn about the law if they want to. Additionally, they can broaden their legal knowledge. build effective, accountable, and inclusive institutions at all levels and promote peaceful and inclusive societies for sustainable development. Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements.

### 3 Milestone 1: Identify user groups

#### 3.1 Persona(s) – 04 personas from a group

- Former Retired lawyer adding reading materials to application.



Figure 1 : persona 1

- Law student adding reading materials to application.

PROJECT: Online student persona PERSONA: Saman Amarasekara

<b>NAME</b> <b>Saman Amarasekara</b>	<b>FREQUENT USER</b> <b>Rational</b>																												
	<b>Quote</b> <i>I love to give my consultancy for people and help them to solve their problems.</i>																												
<b>Demographic</b> <p>Male 25 years Sri Lanka Single Law Student Middle-class income</p>	<b>Background</b> <p>Saman Amarasekara is a Law Student. Currently following a degree at a university. He likes to help people who want to be aware of criminals and laws. He always tries to help people through social media.</p>																												
<b>Skills</b> <p>Tech-savvy: 100 Communication: 85 Negotiations: 75</p>	<b>Motivations</b> <ul style="list-style-type: none"> <li>Growing his career in the Law consultancy field.</li> <li>Spread the knowledge to the people.</li> <li>Learning new and helpful things</li> <li>Building a strong network in the consulting sector</li> </ul>																												
<b>Browsers</b>   Chrome · Firefox	<b>Frustrations</b> <ul style="list-style-type: none"> <li>People are aware of lots of wrong things throughout the social media</li> <li>People didn't know things about general laws</li> <li>People suffer from lots of problems</li> <li>People afraid to tell their problems to the others</li> </ul>																												
	<b>Goals</b> <ul style="list-style-type: none"> <li>Help the people who want to consult regarding the general laws and criminal laws.</li> <li>I see lots of people don't have a clear idea about laws and criminals So aware of the people properly.</li> </ul>																												
	<b>Channels</b> <table style="width: 100%; text-align: center;"> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Smartphone</td> <td>Laptop</td> <td>Google</td> <td>Online newspaper</td> <td>Website</td> <td>Zoom</td> <td>Email</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Friends</td> <td>Face to face</td> <td>LinkedIn</td> <td>Twitter</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>								Smartphone	Laptop	Google	Online newspaper	Website	Zoom	Email								Friends	Face to face	LinkedIn	Twitter			
																													
Smartphone	Laptop	Google	Online newspaper	Website	Zoom	Email																							
																													
Friends	Face to face	LinkedIn	Twitter																										

**UXPRESSIA**  
This persona was built in upressoia.com

Figure 2: persona 2

- Foreign travellers adding reading materials to application.

PROJECT: untitled PERSONA: Peter Parker

NAME	TYPE
Peter Parker	Foreign User

**Background**

Peter Parker is a traveler and a blogger who loves to explore new places around the world. He is a frequent traveler and also having a YouTube channel where he posts videos related to the places he visits. Some popular travel agents in the country are willing to sponsor for Peter's trip so that he can easily travel without any financial problems. Also in last year he was awarded as the most popular Australian blogger.

While traveling between countries, he also visited to Sri Lanka, then he wants to know about the laws in Sri Lanka. When he searched for the information about Sri Lankan laws on the website, he came to know about this law application.

**Motivations**

- Found correct answers for the questions of law
- Learning more new things about the law
- Met legal experts
- Become aware of other people's questions about the law

**Frustrations**

- Getting fake answers for the law questions
- Communication issues
- Followed the wrong information and work for it
- Unknowingly went the wrong way and got a penalty

**Goals**

- Finding correct and helpful answers for the questions of law
- getting more knowledge about the law and learning new things
- properly aware about the general laws

**Skills**

Skill	Score
Tech-savvy	90
Communication	85
Language-competency	80
Online Research	85
Finance	70

**Browsers**

Chrome Firefox Microsoft Edge Opera Safari

**Channels**

Channel Type	Sub-Channels
Smartphone	Laptop, Google
Online magazine	Online newspaper, Website
Zoom	Email, Event
LinkedIn	Twitter, Facebook
YouTube	Instagram, WhatsApp

**UXPRESSIA**

This persona was built in [uxpressia.com](http://uxpressia.com)

Figure 3 : persona 3

- Private class teacher adding reading materials to application.

PROJECT: untitled PERSONA: Kaveesha Bandara

NAME	MARKET SIZE	TYPE
Kaveesha Bandara	 40 %	Private Teacher



**Background**

Kaveesha is a private class teacher, speaker, former assistant lecturer and former law partner. Kaveesha joined the Colombo University Faculty of Law as a law student in 2012. Then he worked in the same university as an assistant lecturer for three years from 2017. Currently working as a private teacher of A/level logic subject. He has 10 years of experience as a teacher. Classes are also held for students hoping to enter law collage. He even gives guest lectures at conferences and workshops.

**Demographic**

 Male 30 years  
 Avissawella  
 Married  
 Lawyer/Lecturer/Private Class teacher

**Goals**

- Expanding his A/l logic classes and law workshops.
- Sending many students to the law faculty from him.
- Increasing his popularity as a teacher.
- Being able to easily and quickly find people who are interested in their scope.

**Motivations**

- Provide excellent service to the school and university students.
- Spread knowledge throughout society.
- Developing individual classes day by day.
- Increasing the knowledge of law students and A/l logic students

**Frustrations**

- Not being able to expand his private classes and workshops.
- Due to the economic problems in the country these days, posters and banners are a big expense to promote the classes. Even spending a lot of money to advertise on TV.
- Decreasing population in law workshops.
- Not being able to further increase his popularity as a teacher throughout the island.

**Quote**

*I want a mobile application and platform to improve the publicity of my classes, workshops and publish ads easily, who are interested to law and jurisprudence and related subjects*

Law Knowledge 85

Teaching 80

Communication skill 85

Problem Solving 80

Leadership 85

**Technology**



**Channels**



**UXPRESSIA**  
This persona was built in [uxpressia.com](http://uxpressia.com)

Figure 4 : persona 4

### 3.2 Empathy map(s) – 04 Empathy maps from a group

- Mr. Anura Dissanayake's Empathy map.

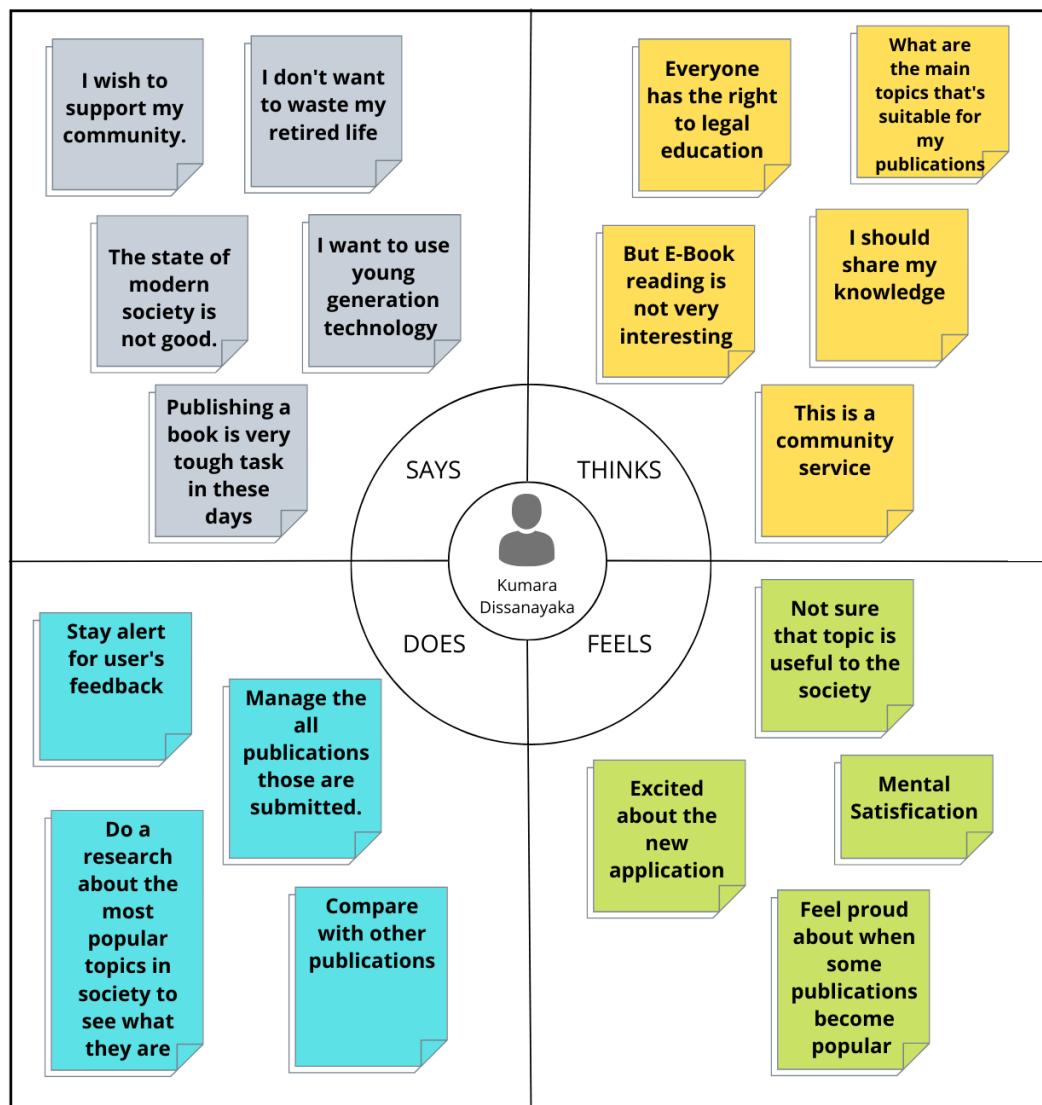


Figure 5 : Empathy map 1

- Mr. Saman Amarasekara's Empathy map.

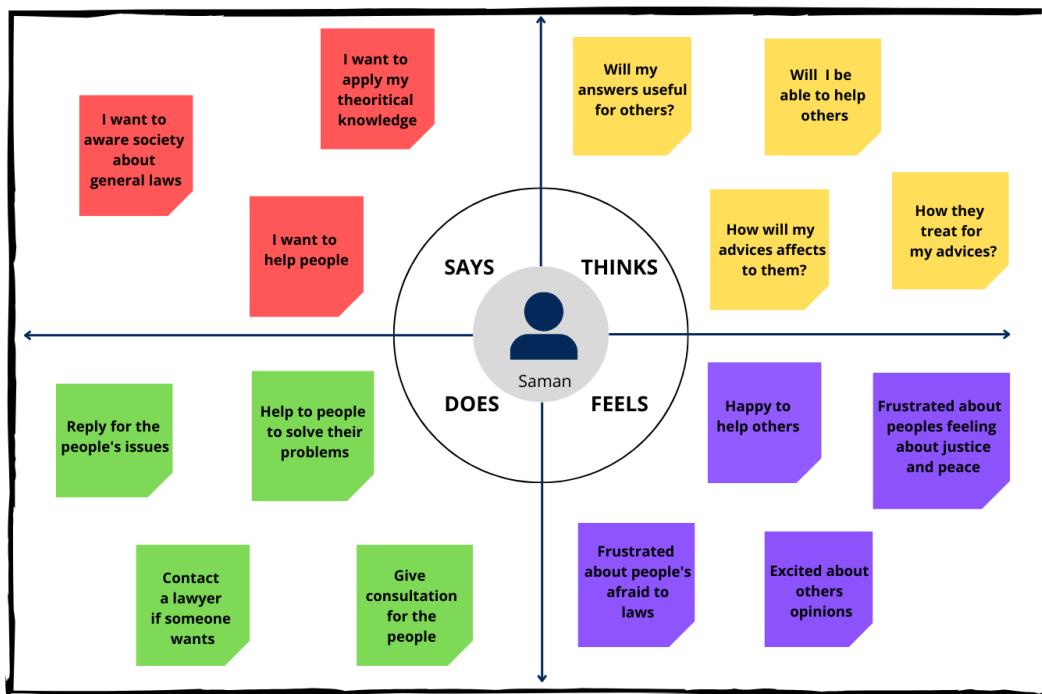


Figure 6 : Empathy map 2

- Mr. Peter Parker's Empathy map.

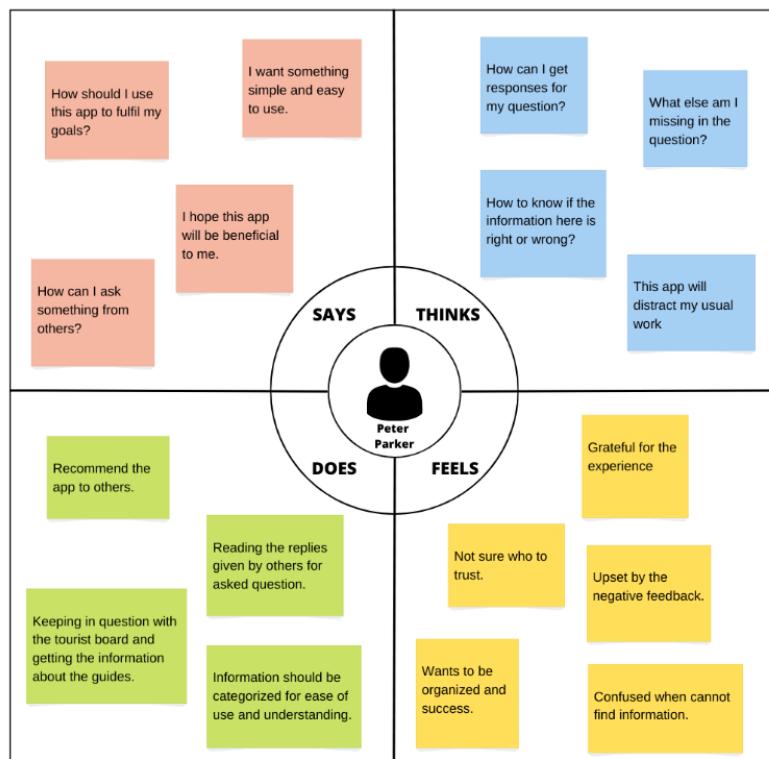


Figure 7 : Empathy map 3

- Mr. Kaveesha Bandara's Empathy map.

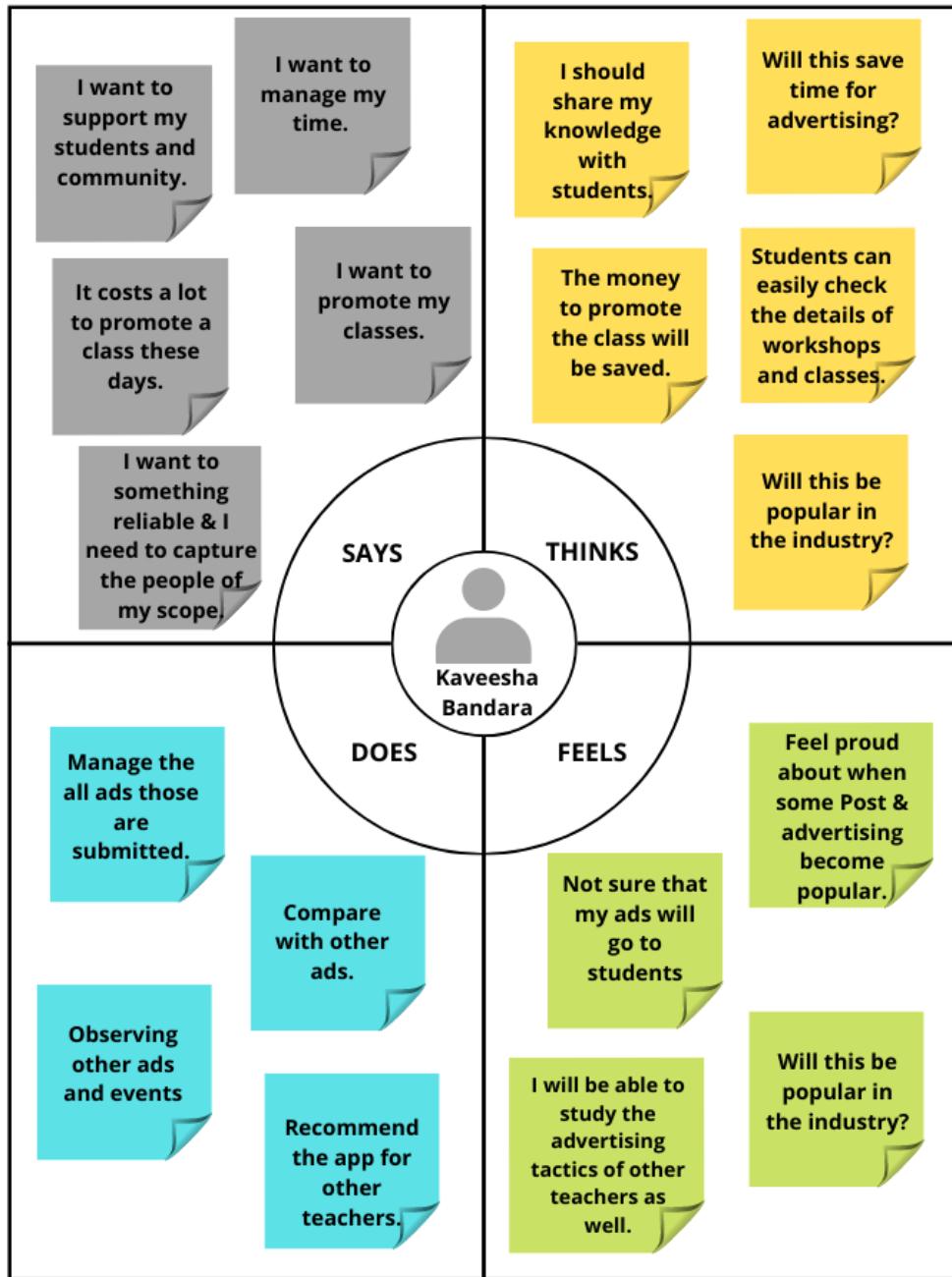


Figure 8 : Empathy map 4

### 3.3 User stories – 04 User stories from a group

- As a retired lawyer I want to educate people about the law so that I can give a service my community after my retirement also.
- As a law student I want to aware the people about general laws and criminals so that it helps to make a better society.
- As a foreign traveller I want to post law related questions, so that I can clear my doubts and get the knowledge about Sri Lankan law.
- As a private class teacher I want to spread my classes and events among students so that I can help students qualify for law school.

### 3.4 User flow(s) - 04 User flows from a group

- Publish a book to the application.

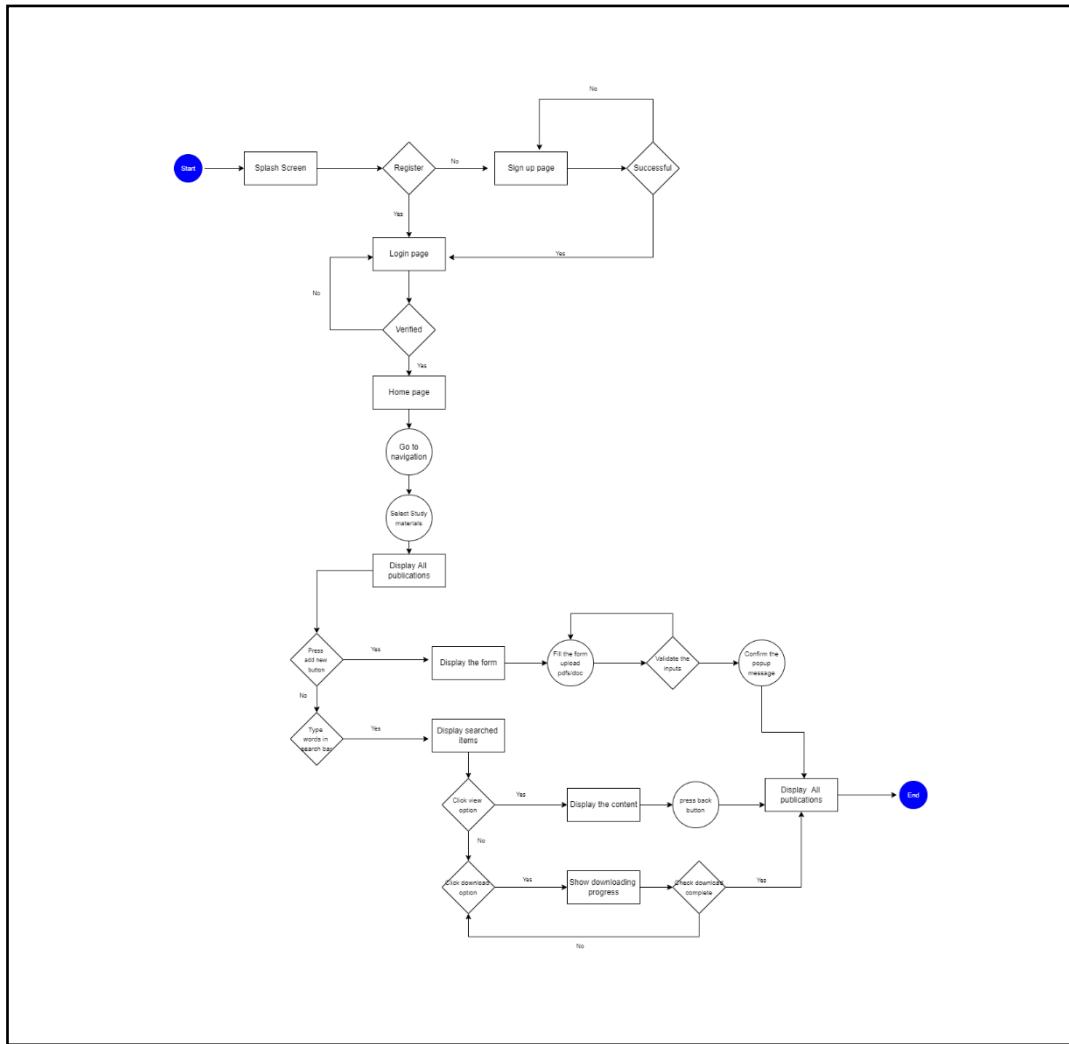


Figure 9 : User flow 1

- Reply to the raised issue.

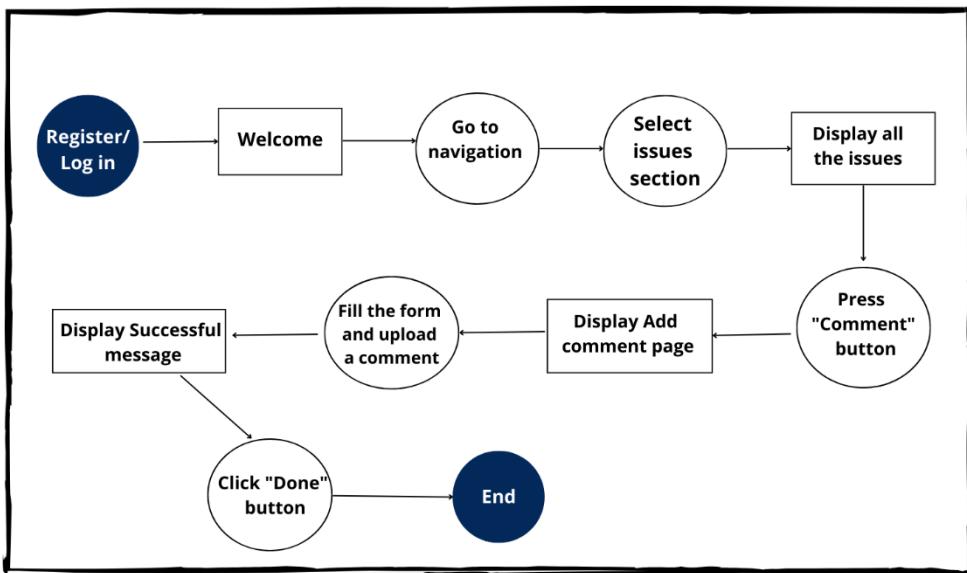


Figure 10 : User flow 2

- Raised an issue to the application.

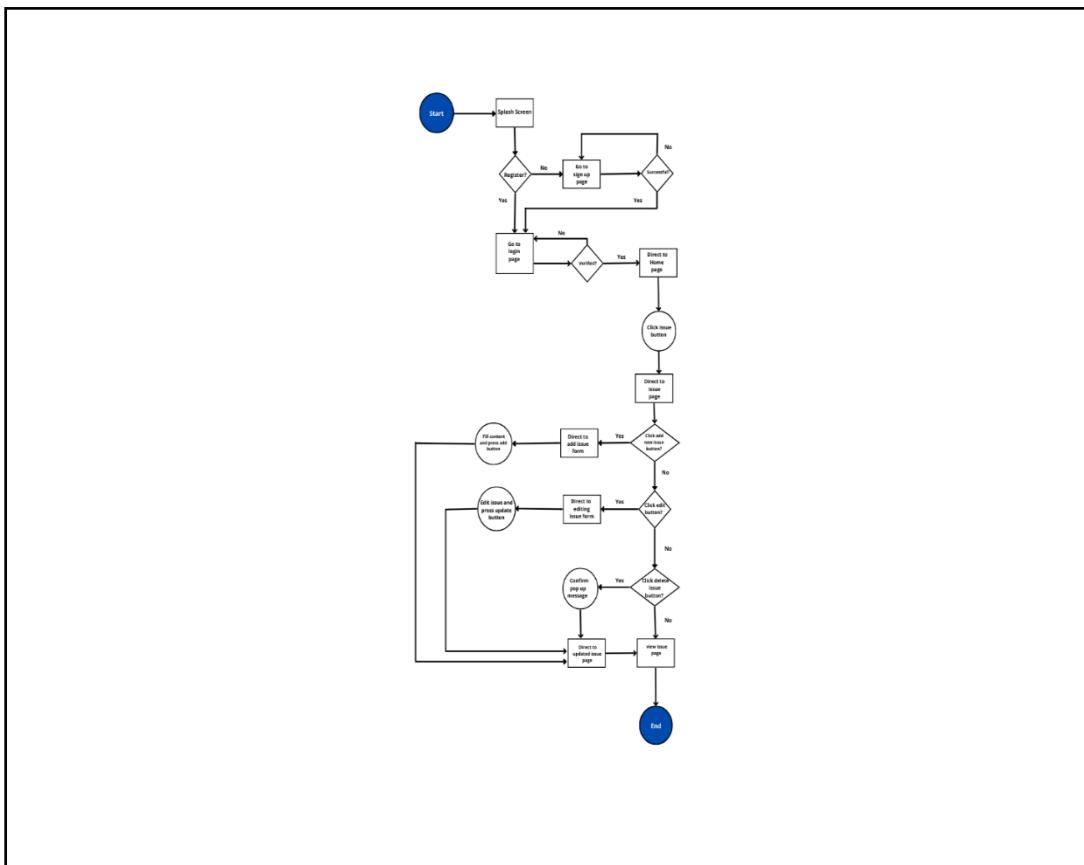


Figure 11 : User flow 3

- Publish ADS or event to the application.

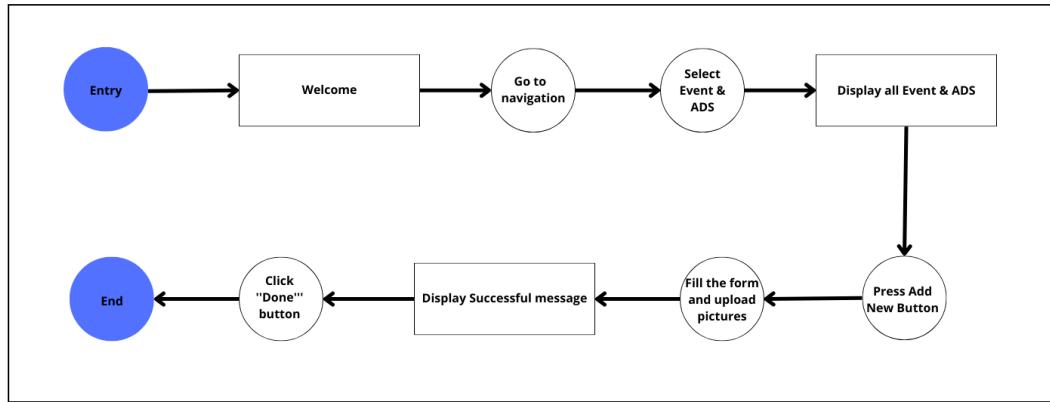


Figure 12 : User flow 4

### 3.5 Service Blueprint(s) – 01 Service Blueprint from a group

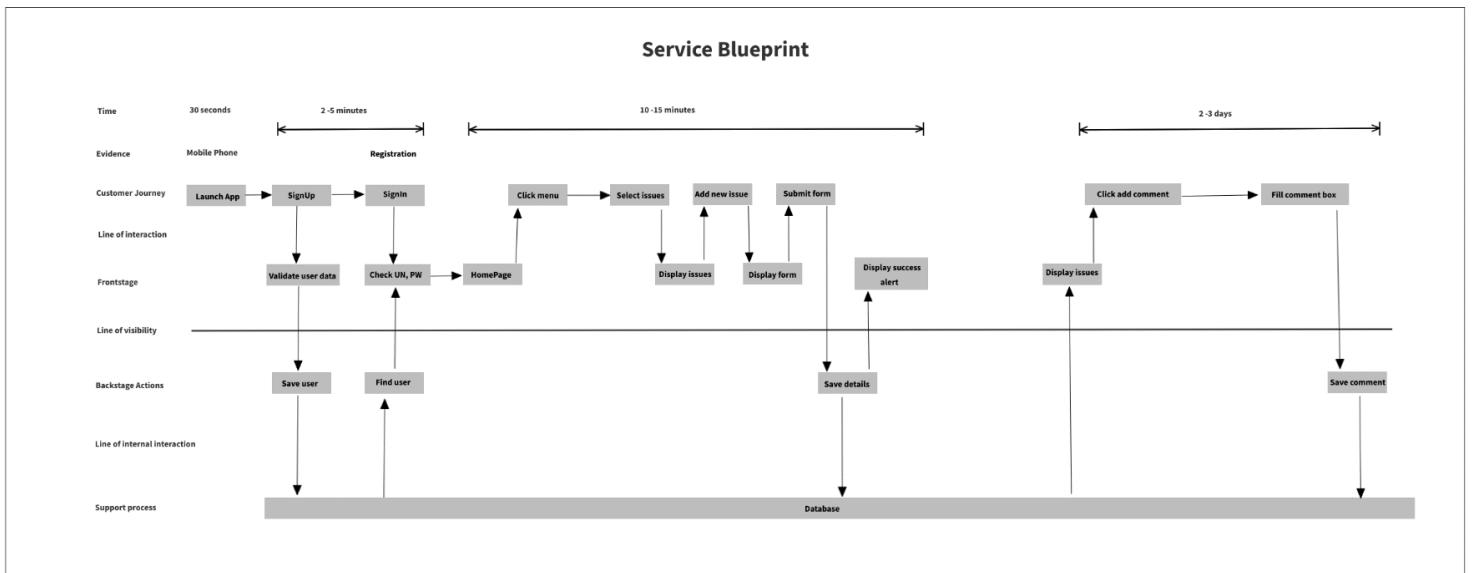


Figure 13 : Service Blueprint

## 4 Milestone 2: Plan and conduct user research

### ❖ Introduction

Under “Peace Justice and Strong Institutions” Sustainable Development goal we are going to develop a mobile application that can address the problems individuals have with the law and criminal issues while also sharing legal knowledge throughout society. Our main target is Ensure public access to information and protect fundamental freedoms, in accordance with national agreements. Before that we are conducting user research program to identify the problems and difficulties faced by the users and the fail-points of our application. And Research helps us to learn about the users and their behaviour, goals, motivations, and needs We planned to do that research process under 5 steps.

- Step 1: **Goal**
- Step 2: **Research questions**
- Step 3: **Method**
- Step 4: **Participants**
- Step 5: **Protocol**

## ❖ Goals

As a group we have select for main stakeholders and divided them separately according to them we are going to identify their behaviour, goals, motivations, and needs.

### ❖ Goal 1: IT20620202 (persona 1)

- After utilizing the program, establish a user performance baseline and satisfactory levels.
- Finding the issues related to the languages of application.
- Finding a best way to attract the people to the application
- Identifying frequent problems encountered while uploading a file to a system via an iOS or Android application.
- Become fully aware of the ways in which users of technological tools might share knowledge to others.
- Gathering feedback about shortcomings of our application and what needs to be improved as well.
- Gathering more suggestion about how we can share knowledge among the society.

❖ Goal 2: IT20600884 (persona 2)

- Help people who need the consultancy regarding the general laws.
- Provide a platform to get a solution for their issues immediately.
- Provide a platform to get a solution for their issues immediately.
- Provide a platform to get consultancy without paying money.
- Reducing the criminals of Sri Lanka.
- Provide more effective solutions to the people

❖ Goal 3: IT20603236 (persona 3)

- Enabling anyone to easily ask a question about the law at any time.
- Asking questions enables people to know what they don't know about the law.
- To provide an opportunity to get a correct and helpful answers to the question they have regarding the law.
- Giving more knowledge about the law and enabling people to learn new things.
- Aware people about the general law.

❖ Goal 4: IT20636074 (persona 4)

- Facilitating opportunities for students to learn about the subject of law.
- Improving common law literacy among the public.
- To save the time of those conducting legal workshops and teachers by posting notifications and Ads through the Application.
- Increasing the effectiveness of awareness because a group of people with an interesting related to the subject of law and a group of people related to that scope will receive ads and notifications.
- Reduced advertising costs for teachers and workshop organizers.

❖ Method

In order to identify the pain points and to test the above hypothesis, user research was conducted after selecting 4 people from the chosen list of personas. The user experience research methods that were chosen were user interviews and gathered more suggestions through a google form that was distributed. These methods were affordable, simple, and effective with contrast to expensive methods such as usability lab studies or ethnographic field studies which either were much more expensive or time consuming.

## User Interviews:

### Script 1: IT20620202

The screenshot shows a Microsoft Notepad window titled "personal script - Notepad". The content of the script is as follows:

```
File Edit View
----Welcome The stakeHolder-----
1. Mr Gayantha, Tell us about yourself ?
-----show the crime rate of sri lanka going higher according to world bank-----
2. Ask what are the reasons for the increase in the precentage within these two or three years ?
-----if there is a no answer like lack of knowledge-----(mark=4/10)
3.a) ask whether you don't think the main reason to that is the lack of the law knowledge
3.b) What do think if you able to share the knowledge over the mobile application throughout the society.
-----If there is answer like lack of the knowledge about law----- (mark=8/10)
3.b) What do think if you able to share the knowledge over the mobile application throughout the society.
-----Ask about past experience-----
4. Have you use the mobile application to share the study materials like pdfs, eBooks etc.
5. if it so how did you do that? (mark=5/10)
-----explain about our application-----
6.All those who seek knowledge about law we are going to provide the all study materials the need thorough one mobile application.
How do you think about this?
-----show the user flow and describe -----
7. Are you familiar with our application and any other doubts?(mark=?/10)
8.Have you any suggestion about our application or what are improvement that we need(mark=?/10)
-----finish the interview -----
```

Ln 3, Col 15      100%      Windows (CRLF)      UTF-8

Figure 14 : Script 1

### Script 2: IT20600884

The screenshot shows a Microsoft Notepad window titled "\*interview questions - Notepad". The content of the script is as follows:

```
File Edit View
---Welcome the stakeholder---
1.Give us a breif introduction about you.
2.Are you a Law student right? So do you like to help people?.
3.As a law student have you ever helped people?
4.Can you tell us breif about it?.
5.Haven't you still use online paltform to help people from your knowledge?
6.If there is a platform for that do you like to help people via that platform?
7.What do you think if there is a mobile app to people can ask their issues
   and knowledgeable people can answer for that questions?
8.When you answer for people issues if a person wants your personal consultation is it okay for you?.
9.Are you taking the responsibility about your solutions?
10.Finally.Do you recommended anything else for this application.
----finish the interview---
```

Figure 15 : Script 2

## Script 3: IT20603236

```
*Untitled - Notepad
File Edit Format View Help

-----Welcome the stakeholder-----

1. Can you tell us about yourself?
2. Which country are you from?
3. Have you ever used a mobile app to ask your law related issues?
4. Are you aware about Sri Lankan general law?
5. Are you faced an issue related to Sri Lankan law?
6. Would you like to share it with us?
7. Can you tell us brief about it?
8. What do you think if there is an application to learn about Sri Lankan law?
9. If there is a that kind of application, do you like to ask your private question through this app?
10. What do you think if you able to contact a law consultant through this app?
11. Finally.... Do you recommend anything else for this app?

-----Finish the interview-----
```

Figure 16 : Script 3

## Script 4: IT20636074

```
personal script4.txt - Notepad
File Edit Format View Help
|
-----welcome the stakeholder-----

*****First ask his information and his opinion about the law and people's awareness.*****
1.Mr.Kaveesha, tell us a little about your background. How did you start doing classes? What is the situation now?
2.You have a lot to do with jurisprudence. You also do a lot of work with today's society.What do you think about being aware of the law of equal people?
3.What are the problems that arise in educating the public about the law?
*****Then we explain what we are going to develop*****
We are making an app to raise awareness about the common law. It allows the public to ask questions about the legal issues that come up on a daily basis. A lawyer or someone with knowledge can answer. Also legal books can be published. Also, classes and workshops related to the subject of law can be informed through it.
*****In this movement, we will show our project proposal and plans on the phone.After that we will ask what you think about the app we are going to develop.*****
4.Do you think it will help the public and help the legal teachers?
*****If he says no, we will ask him about the errors shown in the App. After that, if we make the app, it asks what to add. Then turn to the 5th question. If he says yes, we go directly to question 5.*****
5.What would you think if you got to know the above information through a smart phone App?
*****After that we ask about the details of advertising in his classes and his opinion about advertising through the app.*****
6.How much does it cost to advertise classes? Where is the cost with the conditions in Sri Lanka at this time?
7.If you are doing law-related teaching activities and workshops in would you like to advertise for them through an App?
*****If he doesn't like it, ask the reasons and go to the next question.*****
8.How easy is it for your advertising efforts to easily capture a group of subscribers related to your law scope?
9.Do you think that it is possible to save money on advertising through the above method?
10.Do you think that your advertising activities will be successful by easily informing the subscribers related to the scope of law through an app?
11.Any suggestions to share more law information advertising through out the society?
*****Finally, we thank him for his participation.*****
```

Figure 17 : Script 4

❖ Interview video conference:

[https://mysliit-my.sharepoint.com/:f/g/personal/it20620202\\_my\\_sliit\\_lk/EuW89k7WWp9GiEeEQUx4MvwBmf0SR1dF2uEmwsI77r2Hlg?e=zMzTvf](https://mysliit-my.sharepoint.com/:f/g/personal/it20620202_my_sliit_lk/EuW89k7WWp9GiEeEQUx4MvwBmf0SR1dF2uEmwsI77r2Hlg?e=zMzTvf)

❖ Questionnaires

We create 4 forms because we are addressing different characters. Each character has unique questions. Therefore, we have to collect all solutions separately. That why we created 4 google questionnaires.

Questionnaire: IT20620202



**Suggestions for an innovative mobile application**

Hello everyone. We are 3rd year first semester student from Faculty of Computing in Sri Lanka(SLIT). Under User Experience Engineering module we have to implement a best solution for main Sustainable Development Goal(SDG) called " Peace Justice and Strong Institutions". Therefore, we are conducting a survey to learn if a mobile app could help address the problems individuals have with the law and criminal issues while also sharing legal knowledge throughout society. Please be kind enough to fill out this survey.

pramudithamararao00@gmail.com Switch accounts Draft saved

**Email \***  
Your email address

**Name \***  
Your answer

**Gender \***  
 Male  
 Female

**Are you engaged in any work related to the law? \***  
 Yes  
 No

**What importance do you placed on informing the general public about the law? \***  
 Very Important  
 Important  
 Not so important  
 Not necessary

**Do you have the skills required to share the general public about legal concerns? \***  
 Yes  
 No  
 Never Tried

**Which method do you think is the most effective for sharing information throughout society? \***  
 Leaflets  
 E-Books  
 Seminar

**If it is e-books would you prefer it to be a mobile application? \***  
 Yes  
 No

**Do you like to publish any kind of study material? \***  
 Yes  
 No

**Any Suggestions to share more legal information through out the society ?**  
Your answer

**Submit** Clear form

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Google Forms

Figure 18 : Questionnaire 1

**Questionnaire: IT20600884**



### Suggestions for an innovative mobile application

Hello everyone. We are 3rd year first semester student from Faculty of Computing in Sri Lanka(SLIT). Under User Experience Engineering module we have to implement a best solution for main Sustainable Development Goal(SDG) called "Peace Justice and Strong Institutions". Therefore, we are conducting a survey to learn if a mobile app could help address the problems individuals have with the law and criminal issues while also sharing legal knowledge throughout society. At the same time, we are also willing to inform about programs related to law subjects. Please be kind enough to fill out this survey.

[migarak2000@gmail.com](mailto:migarak2000@gmail.com) [Switch accounts](#)

**Email \***  
 Your email address \_\_\_\_\_

**Name \***  
 Your answer \_\_\_\_\_

**Age \***  
 Your answer \_\_\_\_\_

**Gender \***  
 Male  
 Female

**Occupation \***  
 Your answer \_\_\_\_\_

**Do you like to help people for law related issues ? \***  
 Yes  
 No

If yes, Do you like to help people via a mobile app?  
 Yes  
 No

Do you ever have a that kind of a experience? \*  
 Yes  
 No

What do you think if you able to help people through a mobile app ? \*  
 Your answer \_\_\_\_\_

Do you ever have a that kind of a experience? \*  
 Yes  
 No

What do you think if you able to help people through a mobile app ? \*  
 Your answer \_\_\_\_\_

Are you responsible about your advices? \*  
 Yes  
 No

[Submit](#) [Clear form](#)

Figure 19 : Questionnaire 2

## Questionnaire: IT20603236



**Suggestions for an innovative mobile application**

Hello everyone. We are 3rd year first semester student from Faculty of Computing in Sri Lanka(SLIIIT). Under User Experience Engineering module we have to implement a best solution for main Sustainable Development Goal(SDG) called "Peace, Justice and Strong Institutions". Therefore, we are conducting a survey to learn if a mobile app could help address the problems individuals have with the law and criminal issues while also sharing legal knowledge throughout society. At the same time, we are also willing to inform about programs related to law subjects. Please be kind enough to fill out this survey.

it20603236@my.slilit.lk (not shared) Switch account

\* Required

Name \*

Your answer

Age \*

Your answer

Gender \*

Male  
 Female

Country \*

Your answer

Are you aware about Sri Lankan general law? \*

Yes  
 No

What is the issue that you faced related to Sri Lankan law? \*

Your answer

If you faced an issue how do you resolve that?

Your answer

What do you think if you able to get a quick answer for a law question through a mobile app? \*

Very good  
 Good  
 Bad

What do you think if you able to contact a law consultant through a mobile app? \*

Very good  
 Good  
 Bad

Submit  Clear form

Figure 20 : Questionnaire 3

Questionnaire: IT20636074

## Suggestions for an innovative mobile application

Hello everyone. We are 3rd year first semester student from Faculty of Computing in Sri Lanka(GLUT). Under User Experience Engineering module we have to implement a best solution for main Sustainable Development Goal(SDG) called "Peace, Justice and Strong Institutions". Our goal is to create an application that can help individuals to learn about law, address the problems individuals have with the law and criminal issues while also sharing legal knowledge throughout society. At the same time, we are also willing to inform about programs related to law subjects. Please be kind enough to fill out this survey.

[supanswathika2019@gmail.com](mailto:supanswathika2019@gmail.com) (සුපං් වත්තිකා)

<https://www.facebook.com/supanswathika2019>

[View source](#) [Edit source](#)

**E-Mail \***

එමෙල් නොවේ

**Name \***

නැම් තීරණය

**Gender \***

Male  
 Female

**Are you interested in learning about law? \***

Yes  
 No

**Are you engaged in any work related to the law? \***

Yes  
 No

**Would you like to learn about law classes and programs in one place? \***

Yes  
 No

**What would you think if you got to know the above information through a smart phone App? \***

Very good  
 Good  
 Bad

**Do you do teaching activities and workshops related to law subjects? \***

Yes  
 Looking forward to doing it in the future.

**If you are doing law-related teaching activities and workshops in the future, would you like to advertise for them through an App? \***

Like  
 Don't like

**How easy is it for your advertising efforts to easily capture a group of subscribers related to your law scope? \***

Very easy  
 Easy  
 Not easy

**Do you think that it is possible to save money on advertising through the above method? \***

A lot of money is saved.  
 Some amount of money is saved.  
 No

**Do you think that your advertising activities will be successful by easily informing the subscribers related to the scope of law through an app? \***

Will be very successful  
 Will be successful  
 Will fail

**Any suggestions to share more law information advertising through the society?**

නැම් තීරණය

[Save & Next](#) [Save & Close](#)

Google 表单允许您通过 [电子邮件](#)、[Google 表单](#) 和 [Google Sheets](#) 共享和分析您的数据。有关隐私条款的详细信息，请参阅 [Google 表单隐私政策](#)。

**Google Forms**

**Figure 21 : Questionnaire 4**

## ❖ Participants

Name	Demography	Location, Date and Time
Mr. Jayanthi Karunathilaka	<ul style="list-style-type: none"> <li>• Age: 28</li> <li>• Former Author in Sarasavi Publication</li> <li>• Member of bar Council as a lawyer</li> </ul>	Siddamulla, Kottawa 2022/09/26 8.30 P.M
Mr. Saman Amarasekara	<ul style="list-style-type: none"> <li>• Age: 24</li> <li>• 4<sup>th</sup> year law student at Law college.</li> </ul>	6/20 ranawakawatta, kalalgoda,Pannipitiya 2022/09/25 3.30 P.M
Mr. Peter Paker	<ul style="list-style-type: none"> <li>• Age: 28</li> <li>• Traveler and Blogger</li> </ul>	One Gall Face Mall, Colombo. 2022/09/25 2.30 P.M.
Mr. Kaveesha Dineth Bandara	<ul style="list-style-type: none"> <li>• Age 24</li> <li>• A final year student of the Faculty of Law, University of Colombo.</li> <li>• A private teacher of advance level logic.</li> </ul>	Sri Sumana education institution, Avissawella. 2022/09/26 9.00 A.M.

Table 1 : Participants

## ❖ Protocol

First, we got a meeting and discuss what we have to do. After that we listed the things, we want to do. Then we create 4 google forms for each member's function. It helps us to gather user opinions. After that we discussed the goals and research questions according to each function. Then next we selected 4 members for the interview by referring our milestone 1 personas. After that we discussed and create a script for the interview. Finally, we interviewed 4 people to get an idea about our application.

## 5 Milestone 3: Verify the key-user flow(s)

- ❖ Fail points and solutions key flows

IT20600884		
Fail points	Previous user flows	Solution key flows
<ul style="list-style-type: none"> <li>In the previous user flow user doesn't have a clear idea about how the function is start?</li> </ul>	<pre> graph LR     A[Register/Log in] --&gt; B[Welcome]     B --&gt; C((Go to navigation))     C --&gt; D[Select issues section]     </pre>	<pre> graph TD     Start((Start)) --&gt; Splash[Splash Screen]     Splash --&gt; Decision{if Registered?}     Decision -- No --&gt; LogIn[Log In Page]     LogIn --&gt; User{User?}     User -- Yes --&gt; Home[Home Page]     User -- No --&gt; Success[Successful]     </pre>
<ul style="list-style-type: none"> <li>In the previous user flow user doubt about how the update comment process is working.</li> </ul>	<p>This user flow doesn't have update comment process</p> <pre> graph TD     A[Register/Log in] --&gt; B[Welcome]     B --&gt; C((Go to navigation))     C --&gt; D[Select issues section]     D --&gt; E[Display all the issues]     E --&gt; F[Display Successful message]     E --&gt; G[Fill the form and upload a comment]     G --&gt; H[Display Add comment page]     H --&gt; I[Press "Comment" button]     I --&gt; J[Click "Done" button]     J --&gt; K((End))     </pre>	<pre> graph TD     ClickUpdate[Click "Update Comment"] --&gt; DisplayUpdate[Display Update comment page]     DisplayUpdate --&gt; UpdateCommented[Update Commented]     UpdateCommented --&gt; ClickDelete[Click "Delete" button]     ClickDelete --&gt; End((End))     </pre>
<ul style="list-style-type: none"> <li>In the previous user flow there were no decision boxes for the relevant places.</li> </ul>	<pre> graph TD     A[Register/Log in] --&gt; B[Welcome]     B --&gt; C((Go to navigation))     C --&gt; D[Select issues section]     D --&gt; E[Display all the issues]     E --&gt; F[Display Successful message]     E --&gt; G[Fill the form and upload a comment]     G --&gt; H[Display Add comment page]     H --&gt; I[Press "Comment" button]     I --&gt; J[Click "Done" button]     J --&gt; K((End))     </pre>	<pre> graph TD     ClickDelete[Click "Delete Comment"] --&gt; Decision{Do you want to delete?}     Decision -- No --&gt; End((End))     Decision -- Yes --&gt; DeleteCommented[Delete Commented]     </pre>

Table 2 : User flow 1

## IT20620202

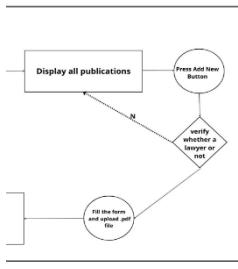
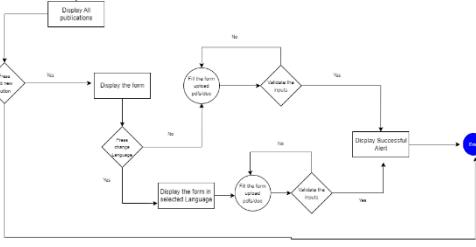
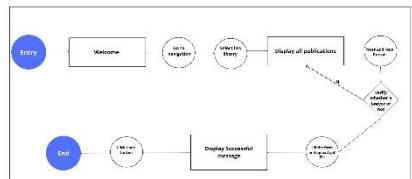
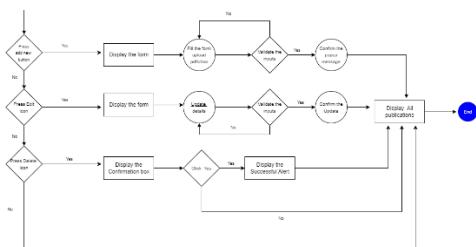
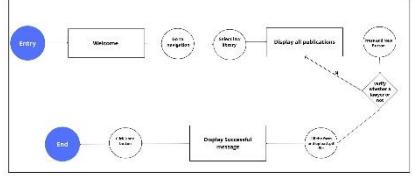
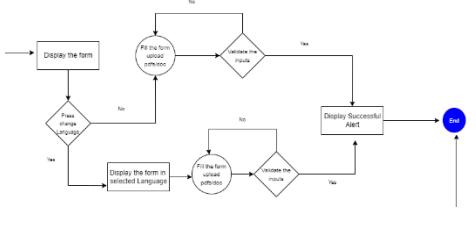
Fail Points	Proof	Solution key flows
<ul style="list-style-type: none"> <li>It's not necessary to verify an author as a lawyer. If someone publishing some study materials related to law, they should be able to submit his publications to the system.</li> </ul>		
<ul style="list-style-type: none"> <li>User couldn't find How they can edit publications' some details if they have entered those incorrectly.</li> </ul>		
<ul style="list-style-type: none"> <li>There wasn't a way if someone want to submit a document in different language</li> </ul>		

Table 3 : User flow 2

## IT20603236

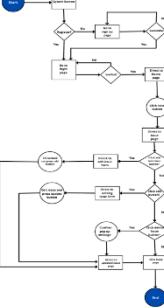
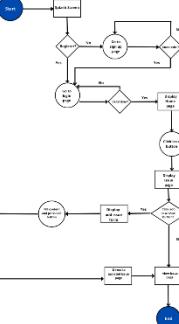
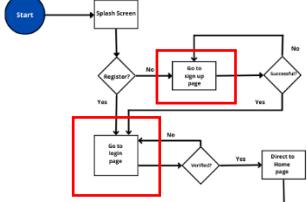
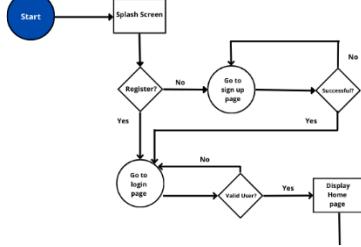
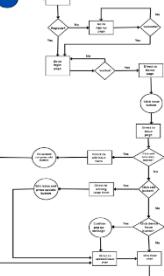
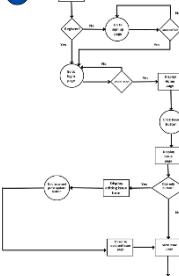
Fail points	Previous user flows	Solution key flows
<ul style="list-style-type: none"> <li>The previous user flow is complex. Therefore, it's difficult to understand the user.</li> </ul>		
<ul style="list-style-type: none"> <li>It was difficult for the user to recognize whether it was a user actions or a system displays.</li> </ul>	 <p>The previous user flows some places use wrong notations.</p>	
<ul style="list-style-type: none"> <li>The previous user flow consist of all insert, update, delete flows. Therefore, user unable to identify each flow process.</li> </ul>		

Table 4 :User flow 3

## IT20636074

Fail points	Previous user flows	Solution key flows
<ul style="list-style-type: none"> <li>In the previous user flow user doesn't have a clear idea about how the function is start?</li> </ul>	<pre> graph LR     Entry((Entry)) --&gt; Welcome[Welcome]     Welcome --&gt; GoToNavigation((Go to navigation))     </pre>	<pre> graph LR     SelectEvent[Select Event &amp; Ads] --&gt; DisplayAllEvents[Display all Events &amp; Ads]     DisplayAllEvents --&gt; AreYouSure{Are you sure want to Add?}     AreYouSure -- Yes --&gt; PressAdd[Press "Add New Button"]     PressAdd --&gt; FillForm[Fill the form and upload pictures]     FillForm --&gt; Submit((Submit))     Submit --&gt; DisplaySuccessful[Display Successful message]     AreYouSure -- No --&gt; DisplaySuccessful     </pre>
<ul style="list-style-type: none"> <li>In the previous user flow, there were no decision boxes for the relevant places.</li> </ul>	<pre> graph LR     Entry((Entry)) --&gt; Welcome[Welcome]     Welcome --&gt; GoToNavigation((Go to navigation))     GoToNavigation --&gt; DisplayAllEvents[Display all Events &amp; Ads]     </pre> <pre> graph LR     subgraph EditPath [Edit Path]         Edit((Edit)) --&gt; ClockDelete[Clock "Delete" button]         ClockDelete --&gt; DisplaySuccessfulEdit[Display successful message]     end     subgraph DeletePath [Delete Path]         Delete((Delete)) --&gt; FillFormDelete[Fill the form and upload pictures]         FillFormDelete --&gt; PressAddDelete[Press Add New Button]     end     </pre>	<pre> graph LR     DisplayMyEvents[Display My all Events &amp; Ads] --&gt; ClickDelete[Click "Delete" button]     ClickDelete --&gt; AreYouSureDelete{Are you sure want to delete?}     AreYouSureDelete -- Yes --&gt; DisplayMyAd[Display my ad or event]     DisplayMyAd --&gt; PressDelete[Press "Delete" button]     PressDelete --&gt; DisplaySuccessfulDelete[Display Successful message]     AreYouSureDelete -- No --&gt; DisplaySuccessfulDelete     </pre>
<ul style="list-style-type: none"> <li>In the previous user flow user doubt about how the delete ads &amp; events process are working.</li> </ul>	<pre> graph LR     Entry((Entry)) --&gt; Welcome[Welcome]     Welcome --&gt; GoToNavigation((Go to navigation))     GoToNavigation --&gt; DisplayAllEvents[Display all Events &amp; Ads]     </pre> <pre> graph LR     subgraph EditPath [Edit Path]         Edit((Edit)) --&gt; ClockDelete[Clock "Delete" button]         ClockDelete --&gt; DisplaySuccessfulEdit[Display successful message]     end     subgraph DeletePath [Delete Path]         Delete((Delete)) --&gt; FillFormDelete[Fill the form and upload pictures]         FillFormDelete --&gt; PressAddDelete[Press Add New Button]     end     </pre> <p data-bbox="576 1686 970 1747"><b>This user flow doesn't have delete ads and events process.</b></p>	<pre> graph LR     DisplayMyEvents[Display My all Events &amp; Ads] --&gt; ClickDelete[Click "Delete" button]     ClickDelete --&gt; AreYouSureDelete{Are you sure want to delete?}     AreYouSureDelete -- Yes --&gt; DisplayMyAd[Display my ad or event]     DisplayMyAd --&gt; PressDelete[Press "Delete" button]     PressDelete --&gt; DisplaySuccessfulDelete[Display Successful message]     AreYouSureDelete -- No --&gt; DisplaySuccessfulDelete     </pre>

Table 5 : User flow 4

## ❖ User key Flows

**IT20600884**

- User key flow for add a comment

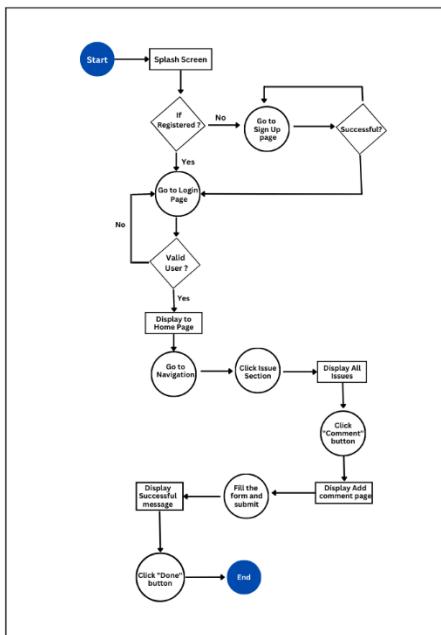


Figure 22 : User flow 5

- User key flow for update comment.

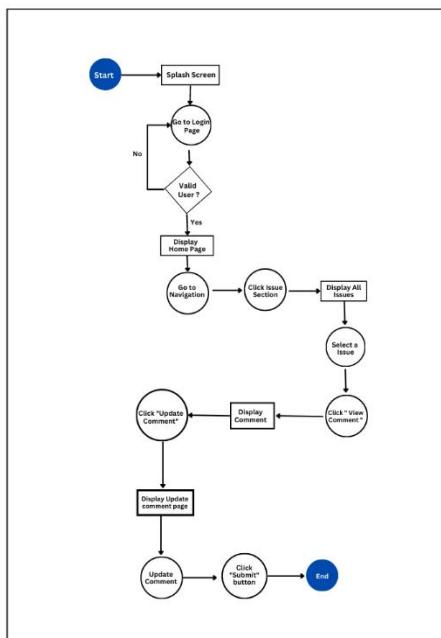


Figure 23 : User flow 6

## User key flow for delete comment.

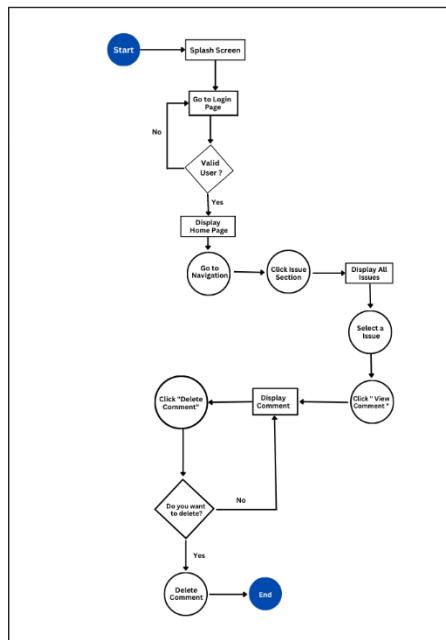


Figure 24 : User flow 7

## IT20620202

- User key flow for submit a study material

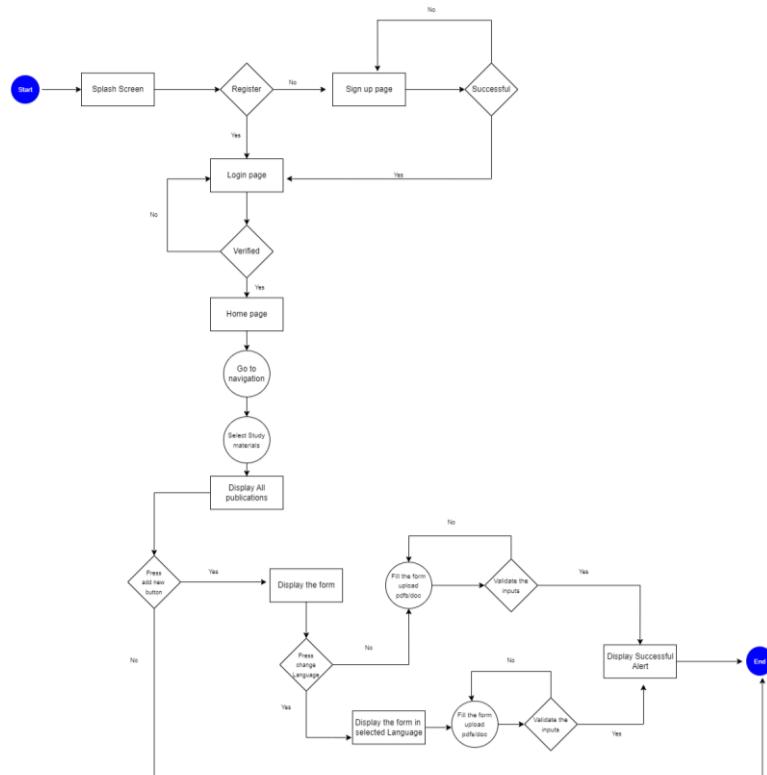


Figure 25 : User flow 8

- User key flow for update or delete study materials' details

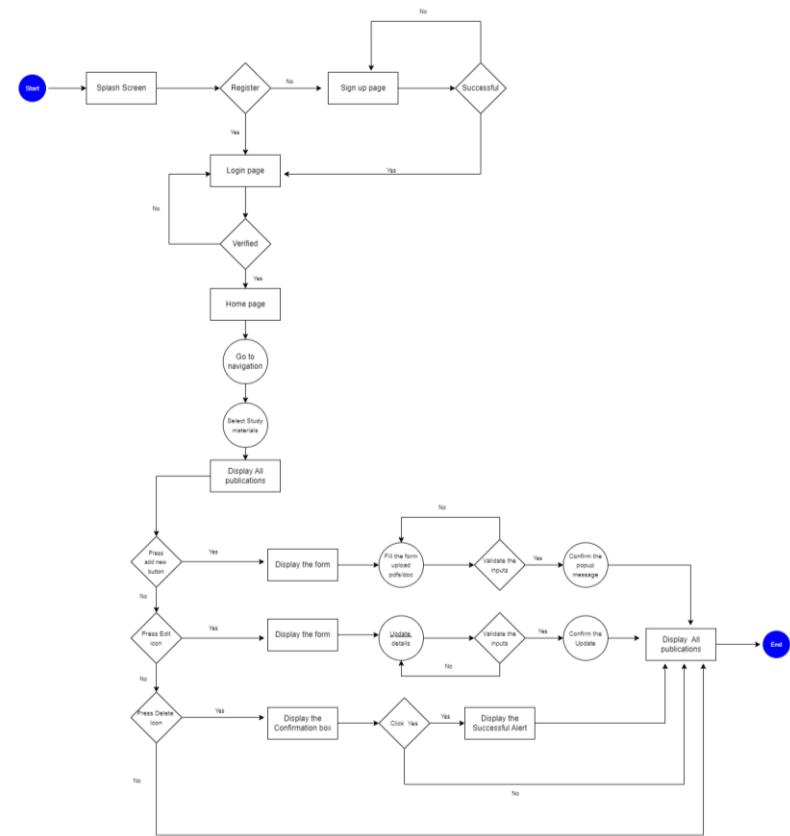


Figure 26 :User flow 9

- User key flow for download a study material

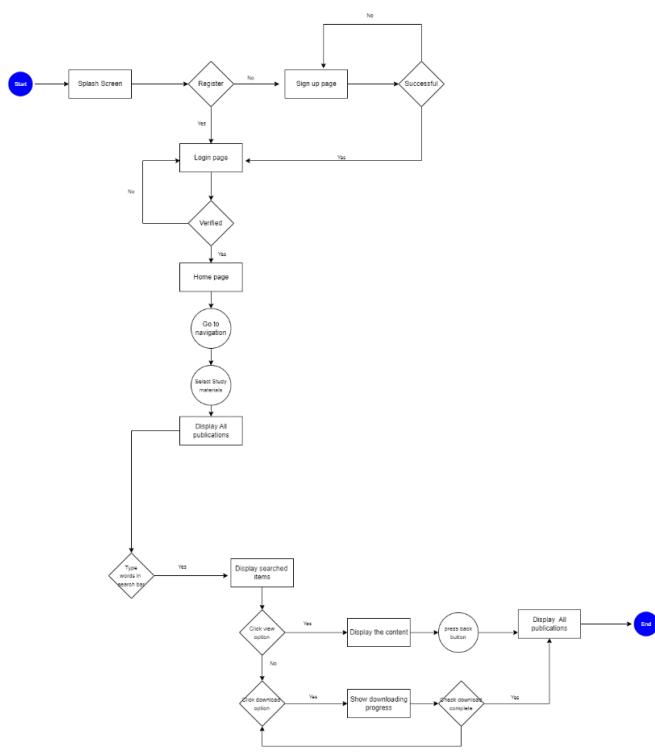


Figure 27 : User flow 10

## IT20603236

- User key flow for add an issue.

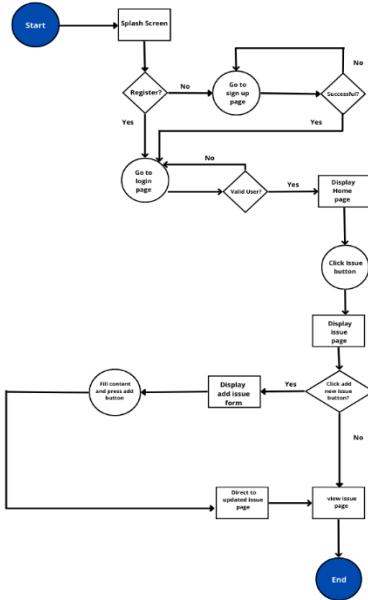


Figure 28 : User flow 11

- User key flow for update an issue.

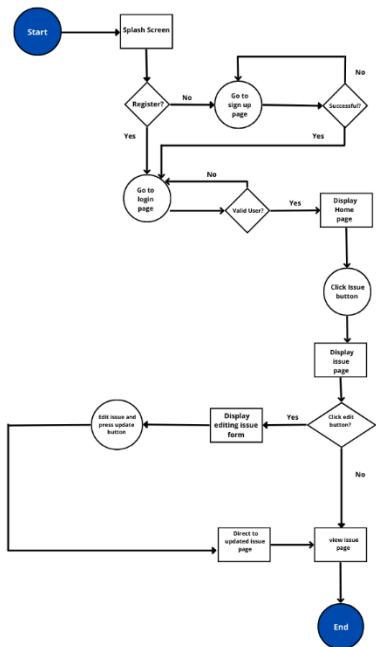


Figure 29 : User flow 12

- User key flow for delete an issue.

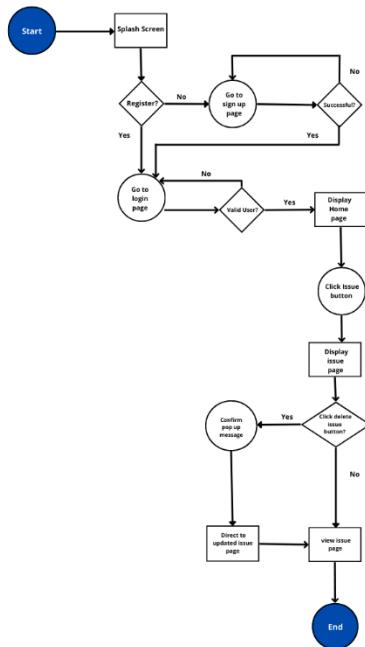


Figure 30 : User flow 13

## IT20636074

- User key flow for add ads & events.

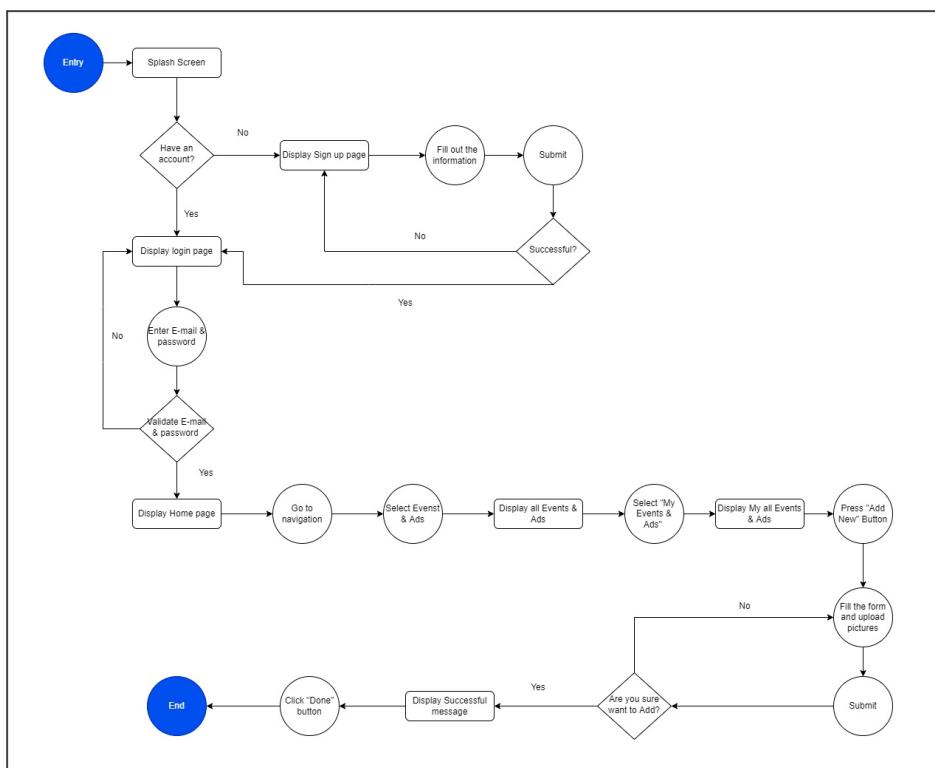


Figure 31 : User flow 14

- User key flow for update ads & events.

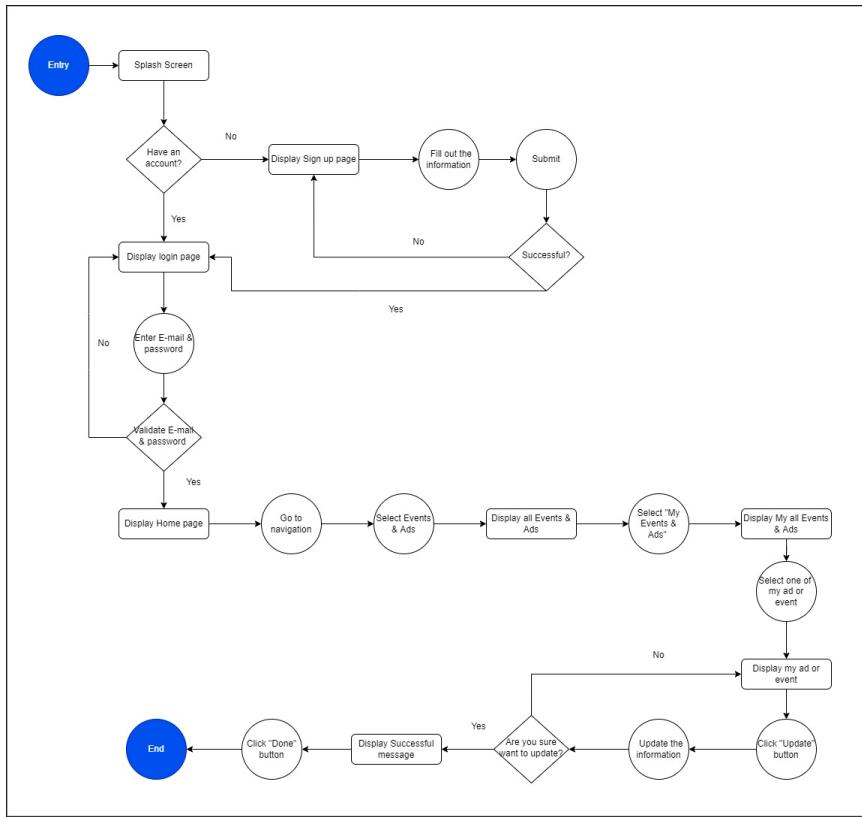


Figure 32 : User flow 15

- User key flow for delete ads & events.

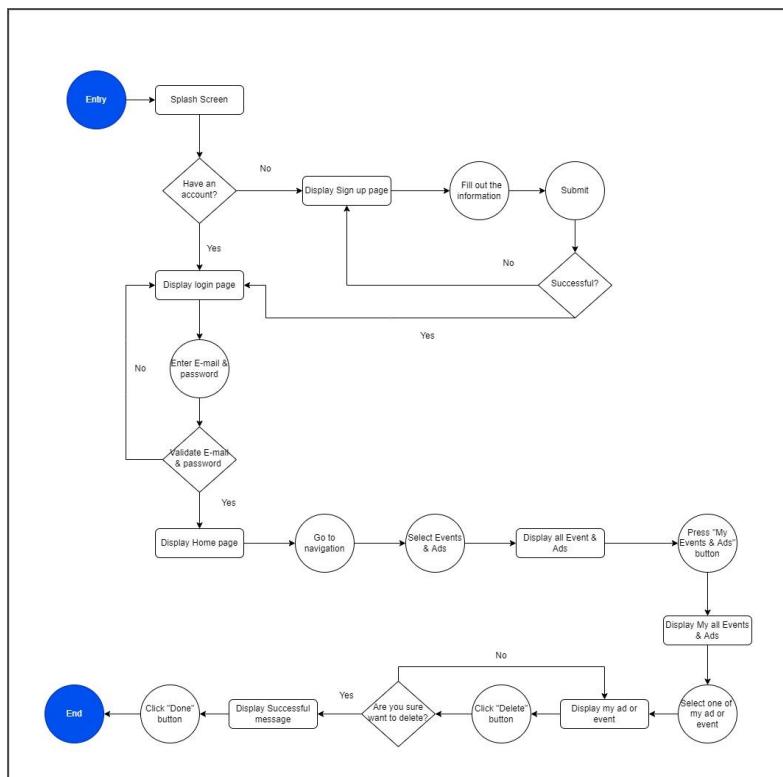
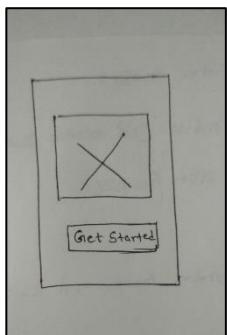


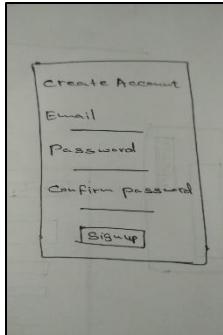
Figure 33 : User flow 16

## 6 Milestone 4: Sketching

### ❖ Sketches



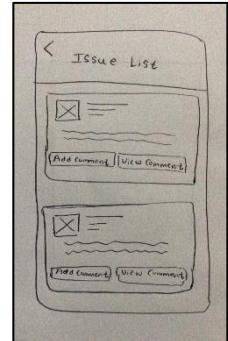
Start



Sign up



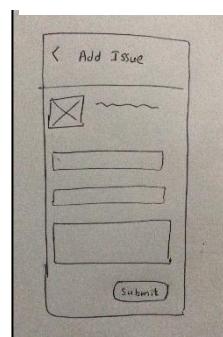
Sign in



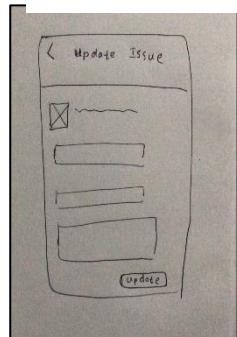
Issues list



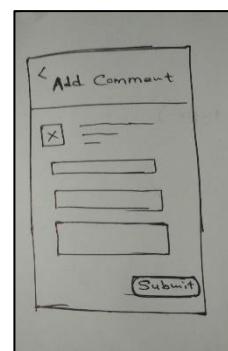
My issues



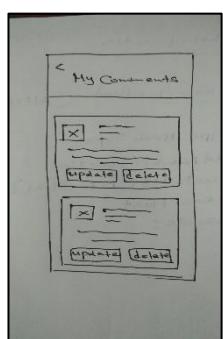
Add issue



Update issue



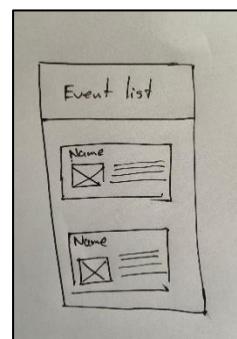
Add comment



My comments



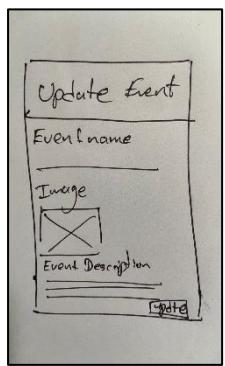
Update comments



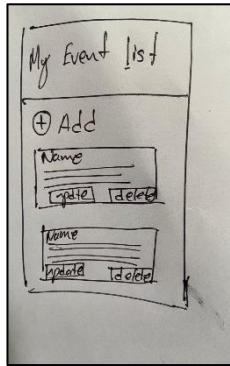
Event list



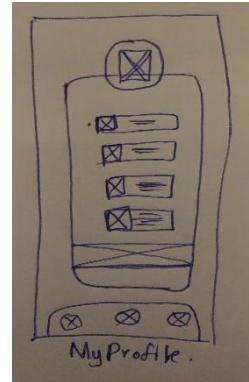
Add event



Update event



My Event list



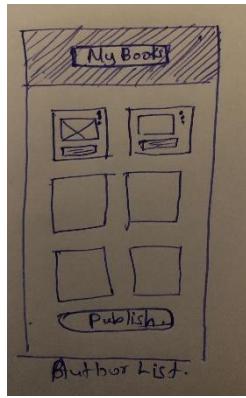
My profile



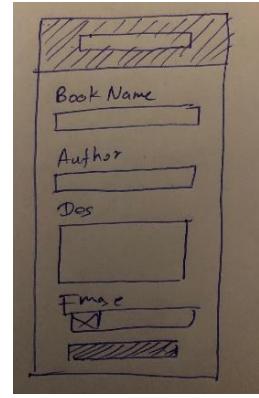
E-Books List



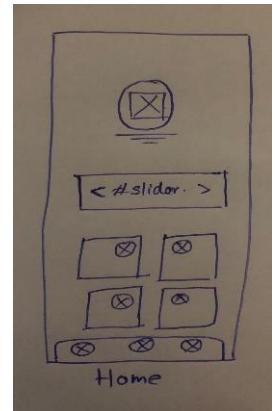
E-book User View



E-book Author View



Publish E-Book



Home

Figure 34 : Sketches

## ❖ Wireframes

**Start**

**Create Account**

**Welcome Back**

**Home**

**My profile**

**Add issue**

**Update issue**

**My issue**

**Issue list**

**My comments**

**Add comment**

**Update comment**

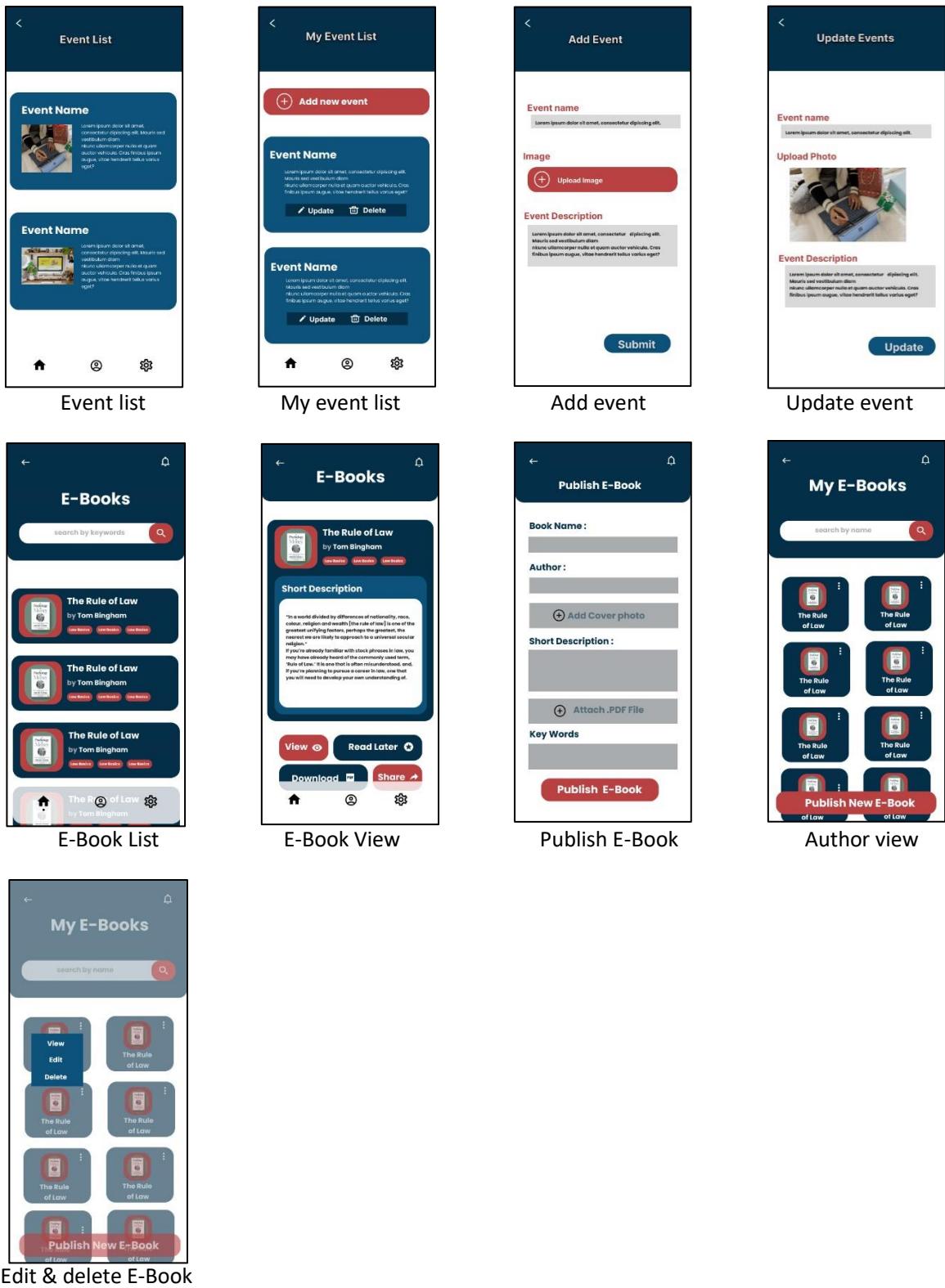


Figure 35 : Wireframes

## 7 Milestone 5: Wireframes, Prototype

### 7.1 Design 1 & Design 2 – accepted

Design 1	Design 2 – accepted
	
	

Table 6 : Design 1



**Add Comment**

 **Olivia Charlotte**  
Created Date  
2022/10/20

**Topic**  
Lorem ipsum dolor sit amet, consectetur adipiscing elit.

**Comment**  
Lorem ipsum dolor sit amet, consectetur adipiscing elit.  
Mauris sed vestibulum diam  
nkunc ullamcorper nulla et quam auctor vehicula. Cras  
finibus ipsum augue, vitae hendrerit tellus varius eget?

**Submit**



**Add Comment**

 **Olivia Charlotte**  
Created Date  
2022/10/20

**Topic**  
Lorem ipsum dolor sit amet, consectetur adipiscing elit.

**Description**  
Lorem ipsum dolor sit amet, consectetur adipiscing elit.  
Mauris sed vestibulum diam  
nkunc ullamcorper nulla et quam auctor vehicula. Cras  
finibus ipsum augue, vitae hendrerit tellus varius eget?

**Comment**  
Lorem ipsum dolor sit amet, consectetur adipiscing elit.  
Mauris sed vestibulum diam  
nkunc ullamcorper nulla et quam auctor vehicula. Cras  
finibus ipsum augue, vitae hendrerit tellus varius eget?

**Submit**



**Update Comment**

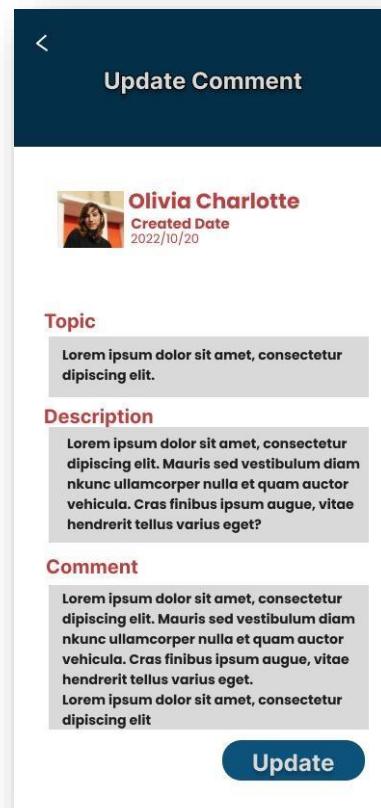
 **Olivia Charlotte**  
Created Date  
2022/10/20

**Topic**  
Lorem ipsum dolor sit amet, consectetur adipiscing elit.

**Description**  
Lorem ipsum dolor sit amet, consectetur adipiscing elit.  
Mauris sed vestibulum diam  
nkunc ullamcorper nulla et quam auctor vehicula. Cras  
finibus ipsum augue, vitae hendrerit tellus varius eget?

**Comment**  
Lorem ipsum dolor sit amet, consectetur adipiscing elit.  
Mauris sed vestibulum diam  
nkunc ullamcorper nulla et quam auctor vehicula. Cras  
finibus ipsum augue, vitae hendrerit tellus varius eget.  
Lorem ipsum dolor sit amet, consectetur adipiscing elit.

**Update**



**Update Comment**

 **Olivia Charlotte**  
Created Date  
2022/10/20

**Topic**  
Lorem ipsum dolor sit amet, consectetur adipiscing elit.

**Description**  
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Mauris sed vestibulum diam  
nkunc ullamcorper nulla et quam auctor vehicula. Cras finibus ipsum augue, vitae  
hendrerit tellus varius eget?

**Comment**  
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Mauris sed vestibulum diam  
nkunc ullamcorper nulla et quam auctor vehicula. Cras finibus ipsum augue, vitae  
hendrerit tellus varius eget.  
Lorem ipsum dolor sit amet, consectetur adipiscing elit.

**Update**

Table 7 :Design 2

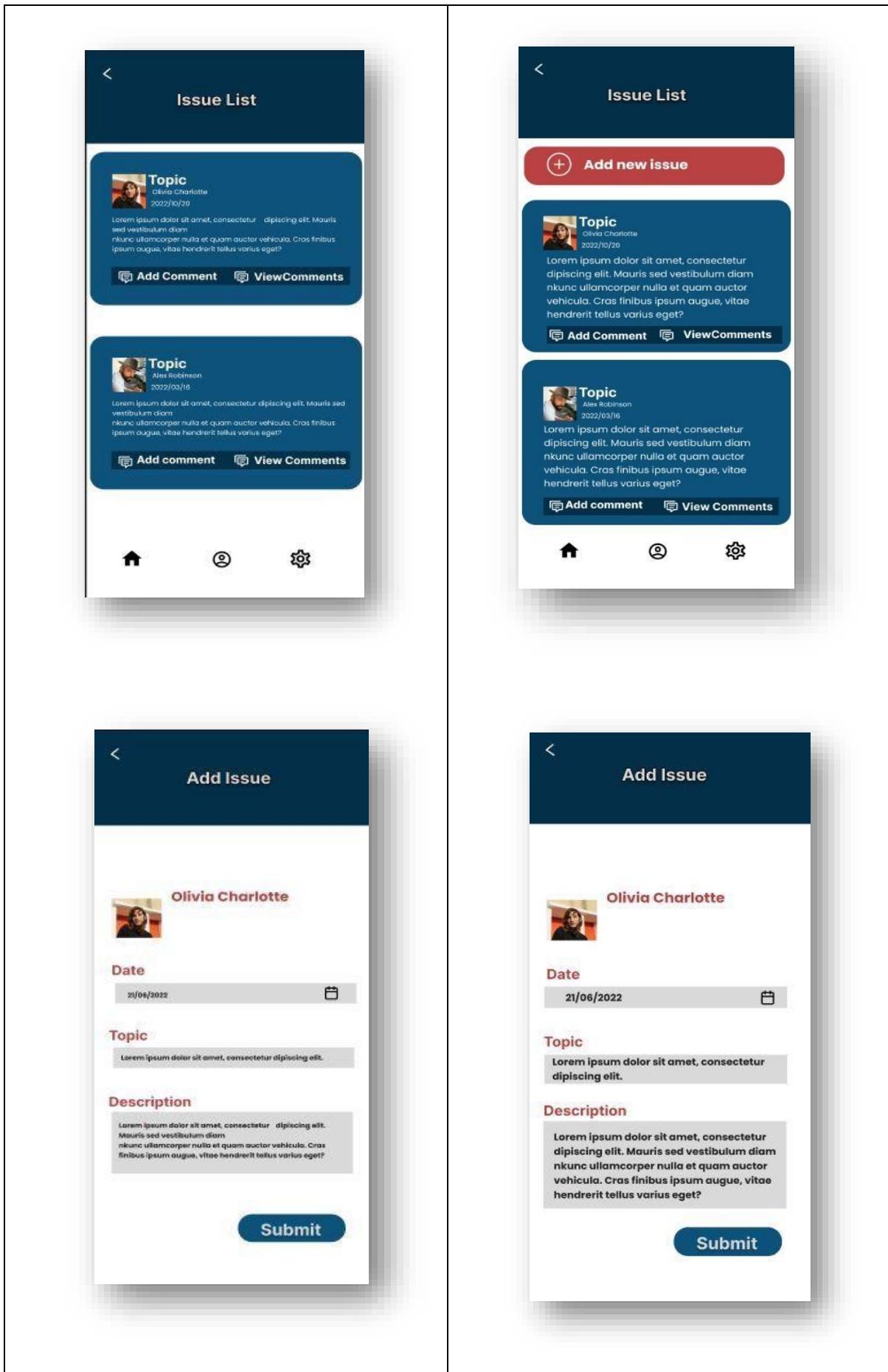


Table 8 : Design 3

<

### Add Event

**Event name**

Lore ipsum dolor sit amet, consectetur dipiscing elit.

**Image**

 Upload Image

**Event Description**

Lore ipsum dolor sit amet, consectetur dipiscing elit. Mauris sed vestibulum diam nunc ullamcorper nulla et quam auctor vehicula. Cras finibus ipsum augue, vitae hendrerit tellus varius eget?

**Submit**

<

### Add Event

**Event name**

Lore ipsum dolor sit amet, consectetur dipiscing elit.

**Image**

 Upload Image

**Event Description**

Lore ipsum dolor sit amet, consectetur dipiscing elit. Mauris sed vestibulum diam nunc ullamcorper nulla et quam auctor vehicula. Cras finibus ipsum augue, vitae hendrerit tellus varius eget?

**Submit**

<

### Event List

**Event Name**

 Lore ipsum dolor sit amet, consectetur dipiscing elit. Mauris sed vestibulum diam nunc ullamcorper nulla et quam auctor vehicula. Cras finibus ipsum augue, vitae hendrerit tellus varius eget?

**Event Name**

 Lore ipsum dolor sit amet, consectetur dipiscing elit. Mauris sed vestibulum diam nunc ullamcorper nulla et quam auctor vehicula. Cras finibus ipsum augue, vitae hendrerit tellus varius eget?

<

### Event List

**Event Name**

 Lore ipsum dolor sit amet, consectetur dipiscing elit. Mauris sed vestibulum diam nunc ullamcorper nulla et quam auctor vehicula. Cras finibus.

**Event Name**

 Lore ipsum dolor sit amet, consectetur dipiscing elit. Mauris sed vestibulum diam nunc ullamcorper nulla et quam auctor vehicula. Cras ipsum.

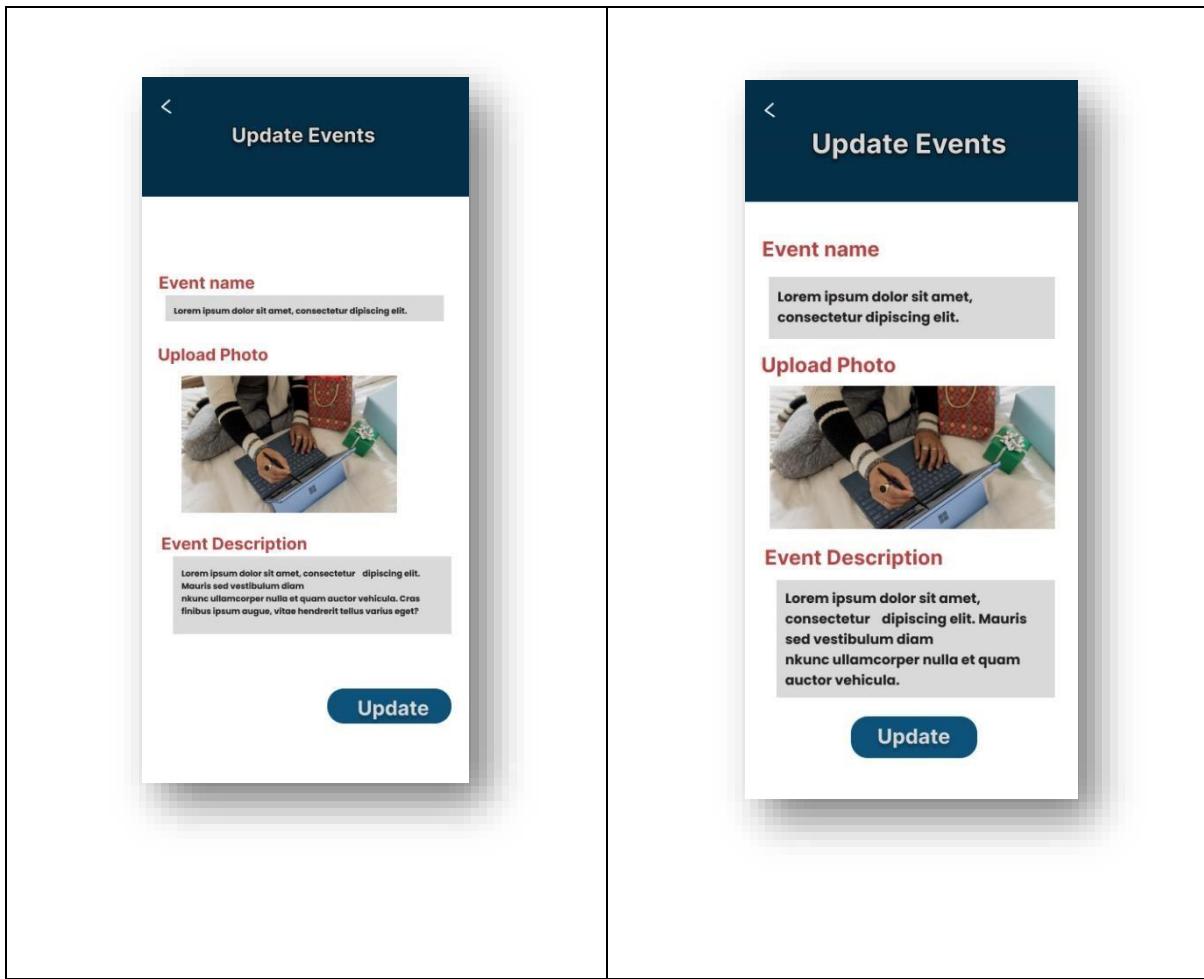


Table 9 :Design 4

## 7.2 High Fidelity Prototype

### ❖ Prototypes

Figma File Link - <https://www.figma.com/proto/yJEqIHLQeCYRGx920B2ORj/UEE2022?node-id=5%3A6&scaling=scale-down&page-id=0%3A1&starting-point-node-id=7%3A50&show-prototype-sidebar=1>

Prototype Video Drive Link -  
[https://drive.google.com/drive/folders/1ZM2Cu6EZJE1ZRFvk\\_1RYChwETJN0jfs6?usp=sharing](https://drive.google.com/drive/folders/1ZM2Cu6EZJE1ZRFvk_1RYChwETJN0jfs6?usp=sharing)

## 8 Milestone 6: User Feedback for your Prototype.

### ❖ User test plan

#### Script 1: IT20620202

```
1.[Download an E-Book]
hi..Thank you again for taking the time to participate in this study. Now we are going to test our application via prototype. So feel free to ask any questions reagrding to our
prototype. you can share your thoughts with me positive or negative if you have any. So lets start.

After sucessfuly logging to the application you can navigate this menu screen. Login is compulsory. Then if your are a finding some publications about law you can press e book
category. then you can see list of all publications that are included in our application. We are giving View, Download , Save and share option for each publication. So you can
 interact with those activity by selecting a book by click on the image. So here you can do those activity as you wish.
. For now, can you show me the way to download an E Book.

Do you have any comments regarding this prototype?

Expected Actions
1. Navigate E-Books category from Home menu as a reader
2. click on the image and view the selected book's details
3. Download an E-Book
Let's move to next task.....
2.[Publish an E-Book]
If you want to publish a law related publication. you have to navigate to the my profile view.Bottom nav bar contain that Home Screen, My Profile And Settings pages. So in my
profile page you can see some menus. By clicking my e books menu item you will direct to the your own publications list. In this page you can publish new E book by clicking below
button. You can fill up this form and attach your pdf then you can publish it. So that's it.

Again can you show me the way to publish an e book?
Do you have any comments regarding this task?

Expected actions
1. Navigate to my profile page using bottom nav bar
2. Again Navigate to the own publications list by clicking menu item.
3. click add new button
4. Fill the form and publish it
```

Figure 36 : Script 1

#### Script 2: IT2060084

```
-----welcome the Law Student-----
**First, a brief reminder about our Law related App. (Because he knows our app well before)**
1.I would like to welcome you Sankalpa So this is the interview for showing the prototype for you. This is developed using your
2.First click the Add comment button from the issue list page then navigate to add comment page. Then add a comment.
3.Do you have any recommendation for this page ?
4.Then go to my profile page. In there you can see the all the comments and also you can update and delete the comments.
5.If you want to update a comment then click update comment click button else if you want to delete a comment then click delete
6.Do you have any suggestions for that? What do you think about the overall function.

Expected Actions
1.Navigate to add comment page after clicking the add comment button.
2.After add comment navigate to issue list page.
3.After clicking the My Profile go to my profile page.| 
4. After click delete button show pop up message for delete.
5. After click update button show pop up message for update.
6.Provide the opinion about comment function.

**Again notes his comments,suggestions and ideas.**
**Finally, we thank him for his participation.**
```

Figure 37 : Script 2

## Script 3: IT20603236

\*Untitled - Notepad  
File Edit Format View Help  
-----welcome the stakeholder-----  
Firstly,  
A reminder about the application and reminder about my part in the application.  
You are welcome to our interview. This is our law related application. And this is a prototype for testing. In this application my part is developing the issue section. By clicking this my issue button you can navigate to my issue page. If you want to insert a new issue you can click this add new button and navigate to add issue IU. If you want to update the issue you can click this update button and navigate to update issue IU  
\*\*Tell the user to try the process of adding issue\*\*  
Expected Actions  
1.Assuming that she fill the form in the add issue UI and click submit button.  
2. navigating to the issue list UI  
Explain that e can see all the inserted issues in this issue list UI (After navigating to the issue list page)  
\*\*asking question\*\*  
Is the process is easy for you?  
Do you have any suggestions?  
\*\*Tell the user to try the process of updating issue\*\*  
Expected Actions  
1. Assuming that she fill the form in the update issue UI and click update button.  
2. navigating to the issue list UI  
Explain that we can see all the updated issues in this issue list UI (After navigating to the issue list page)  
\*\*asking question\*\*  
Is the process is easy for you?  
Are there any concern?  
-----Thanking the user-----

Figure 38 : Script 3

## Script4: IT20636074

\*personal script4.txt - Notepad  
File Edit Format View Help  
-----welcome the stakeholder-----  
\*\*\*\*First, a brief reminder about our Law related App. (Because he knows our app well before)\*\*\*\*  
1.Nice to meet you again sir. This is the prototype of the app we mentioned earlier. I will show you how to post an event or advertisement through the app.  
\*\*\*\*Part 1-Add an event or advertisement\*\*\*\*  
2.First click the My profile button and then go to My event, we can see the My event list. You can see our advertising and events that were previously included. Then click the Add new event button. Then we can publish our ad by entering our event name, image and details as desired and clicking the submit button.  
3.Is there any ambiguity sir?  
\*\*\*\*If there is any ambiguity, it will be clarified. Or move on.\*\*\*\*  
4.Now sir, tell me how to add event. I will do it through the app as you say sir.  
\*\*\*\*Expected Actions  
1. Navigate to my profile page using bottom nav bar.  
ii. Again Navigate to the Event list by clicking menu item.  
iii. click add new event button  
iv. Fill the form and Submit it\*\*\*\*  
\*\*\*\*I am handling the app as per sir. If he needs support, support is provided.\*\*\*\*  
5.Sir, what problems do you see in our user interface? What is your opinion sir?  
\*\*\*\*Notes his comments and suggestions.\*\*\*\*  
\*\*\*\*Part 2-View all users event and advertisement\*\*\*\*  
6.Sir, I am now going to explain how users can see all the events and advertising.  
7.click the Home button and then go to Events. Then we can take care of everyone's events and advertising.  
8.Is there any ambiguity sir?  
\*\*\*\*If there is any ambiguity, it will be clarified. Or move on.\*\*\*\*  
9.Sir try it now  
\*\*\*\*Again, sir, I am given the opportunity to do it with me.\*\*\*\*  
\*\*\*\*Expected Actions  
1. Navigate to Home page using bottom nav bar.  
ii. Again Navigate to the Events clicking menu item.  
iii.Navigate to the Event list\*\*\*\*  
10.Tell us your problems and ideas in this user interface too.  
\*\*\*\*Again notes his comments,suggestions and ideas.\*\*\*\*  
\*\*\*\*Finally, we thank him for his participation.\*\*\*\*

Figure 39 :Script 4

Name	Demography
Mr. D.L Liyanarachchi	<ul style="list-style-type: none"> <li>• Age: 28</li> <li>• Former Author in Sarasavi Publication</li> <li>• Member of bar Council as a lawyer</li> </ul>
Mr. Sankalpa	<ul style="list-style-type: none"> <li>• Age: 24</li> <li>• 4<sup>th</sup> year law student at Law college.</li> </ul>
Mrs. Maya Sharma	<ul style="list-style-type: none"> <li>• Age: 28</li> <li>• Traveler and Blogger</li> </ul>
Mr. Kaveesha Dineth Bandara	<ul style="list-style-type: none"> <li>• Age 24</li> <li>• A final year student of the Faculty of Law, University of Colombo.</li> <li>• A private teacher of advance level logic.</li> </ul>

Table 10 : User Details

- User Feedback Video

<https://myslit->

[https://my.sharepoint.com/:v/g/personal/it20620202\\_my\\_sliit\\_lk/EeHYLiOzs59CtYGlpKJdLf0BCRSWPoLb7eSYYtoNSIClQQ?e=QgKJIY](https://my.sharepoint.com/:v/g/personal/it20620202_my_sliit_lk/EeHYLiOzs59CtYGlpKJdLf0BCRSWPoLb7eSYYtoNSIClQQ?e=QgKJIY)

## ❖ Google Form and User Feedbacks

Feedback collection for prototype - Law Issue related app for problems people faced in Sri Lanka.

Name \_\_\_\_\_

User Category:

- Lawyer
- Law Student
- Teacher
- Foreign Traveler

Do you like our interface design?

- Yes
- No

Is our interfaces are user friendly with you?

- Yes
- No

If not. What do you suggest us for improve the interfaces?

Long answer text

Is our interface contents are explicit to you?

- Yes
- No

Are you satisfied with our color theme?

- Yes
- No

Are you okay with our font styles?(font weight, font size)

- Yes
- No

Is navigation through pages are easy for you?

- Yes
- No

Are you okay with our font styles?(font weight, font size)

- Yes
- No

Is navigation through pages are easy for you?

- Yes
- No

Do you recommend anything else for our application?

Long answer text

Figure 40 : Google form 1

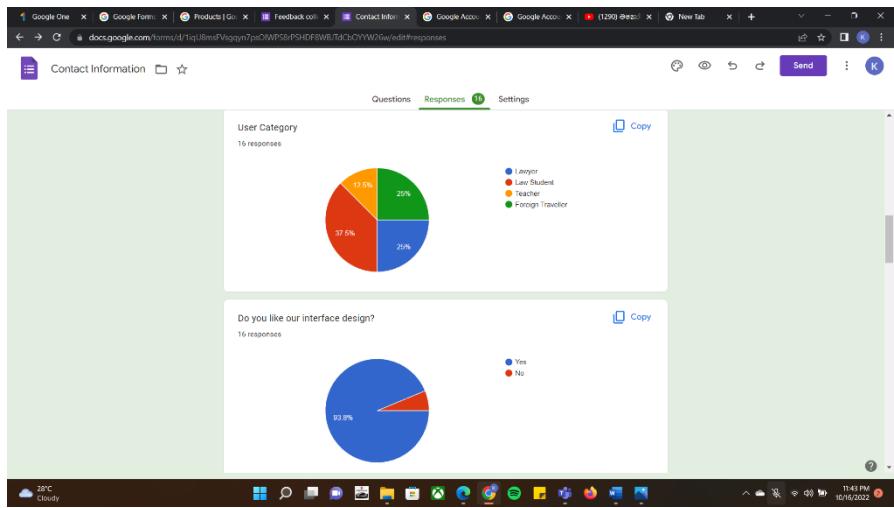


Figure 41 : Google form 2

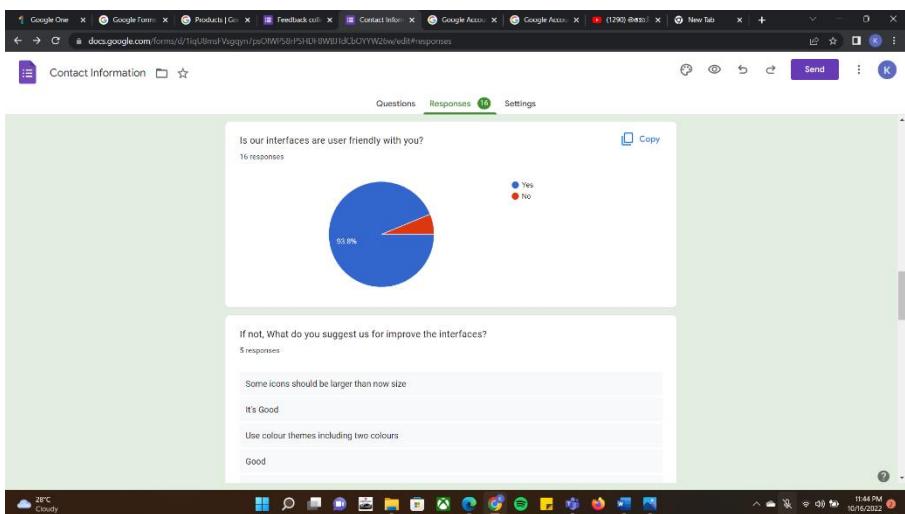


Figure 42 : Google form 3

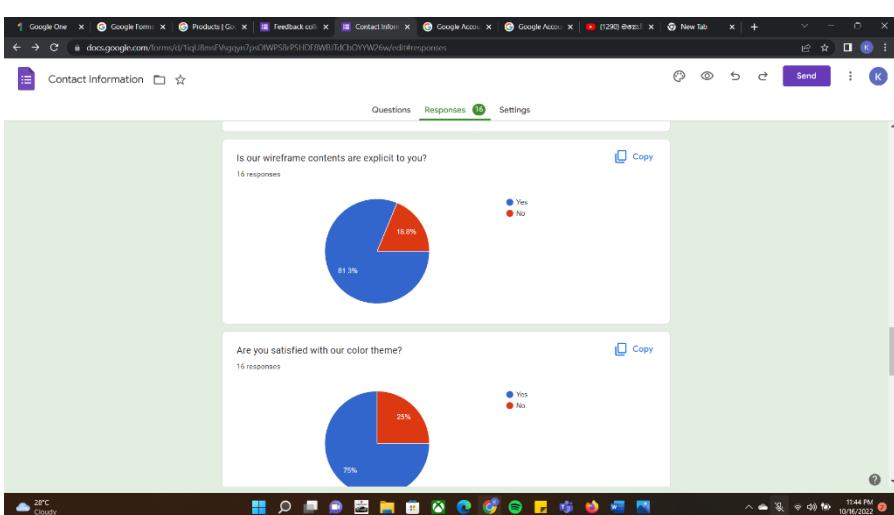


Figure 43 : Google form 4

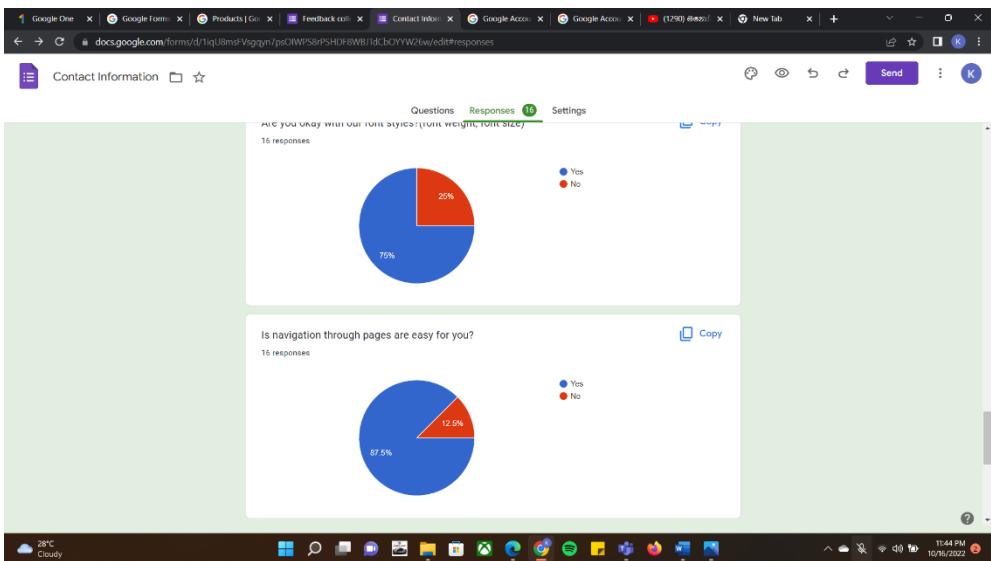


Figure 44 : Google form 5

Google Form Responses (16)

Do you recommend anything else for our application?

- No
- can we use this in dark mode also
- It's very good
- No need of anything. It is perfect
- No, your application is good
- No its perfect
- Nope
- I haven't anything to recommend because those interfaces are perfect.
- No, I am satisfied with this mobile app.

Figure 45 : Google form 6

Google Form Responses (16)

Do you recommend anything else for our application?

- No its perfect
- Nope
- I haven't anything to recommend because those interfaces are perfect.
- No, I am satisfied with this mobile app.
- No.it's Perfect
- If you can increase the font size, it's good for retired teachers.(old teachers)
- Increase font size. If you can change the theme colour.
- No, This application is very useful and easy to use.
- no

Figure 46 : Google form 7

## 9 Milestone 7: Implementation

GitHub Link - [https://github.com/SLIIT-FacultyOfComputing/final-project-uee\\_fp\\_sej022](https://github.com/SLIIT-FacultyOfComputing/final-project-uee_fp_sej022)

# 10 Design Principles

## Unity

We used unity design pattern for our interfaces. Creating a sense of harmony among all the elements on a page is what is meant by unity. A page with pieces that are grouped together theoretically or visually will have a of unity.

## Balance

In our interfaces we used balance design pattern. Balance gives that there is an equal distribution for our interfaces.

## Hierarchy

In our interfaces we used hierarchy design pattern. The hierarchy demonstrates how different elements differ in importance. we used varied font sizes, colour and positioning to establish hierarchies on a website.

## Space

for our interfaces we used space design pattern. space in a design can aid with noise reduction, improved reading, and/or illusion creation. An essential component of our layout plan is white space.

## Contrast

for our interfaces we used contrast design pattern. Contrast seeks to draw attention to differences in items' size, color, orientation, and other characteristics.

# 11 Project Management

## 11.1 Meetings

Simply said, project meetings are crucial components of project management that guarantee a project goes smoothly from start to finish. It is advantageous to keep team members and stakeholders informed about the project's goals, tasks, and progress. In some cases, we had 40-minute zoom meetings and team meetings with stakeholders to get user ideas. We talked to them before the meeting and booked an appointment with them.

Typically, we used teams meeting technology to conduct project meetings twice a week for roughly 1 hour. Maintaining consensus, fostering trust, and averting conflicts and disagreements are all dependent on a good meeting. The best way to respond to members' inquiries is to schedule a Q&A session towards the end of the project meeting.

## 11.2 Risk Management

Negative time and schedule risk are a greater hazard to initiatives since time is a limiting resource for projects. Delays in deadlines could affect the delivery date or overall performance. We worked on the parts related to the due dates according to our own schedule and with the goal of finishing before that date.

A member of our team fell ill. So, the rest of the members shared the work until he recovered. After he recovered, he was informed about the things he missed and what we did and shared the work again.

Find and engage other problem stakeholders. We wanted to get opinions from a tourist who visited Sri Lanka. It was not easy to find a person for that. Therefore, our group goes to places where tourists hang out more and ask their opinions. Due to the busy schedule of their other stakeholders, called earlier and booked time from them.

Stakeholders' opinions changed when the app was made. Therefore, we showed them the user interface and prototype online through a team meeting so that we could keep in touch with them.

### 11.3 Milestones

Milestone	Deadline	September 2022				October 2022				November 2022			
		1w	2w	3w	4w	1w	2w	3w	4w	1w	2w	3w	4w
1.Identify user groups	11 <sup>th</sup> September 2022												
2.Plan and conduct user research	25 <sup>th</sup> September 2022												
3.Verify the key-user flow(s)	02 <sup>nd</sup> October 2022												
4.Sketching	16 <sup>th</sup> October 2022												
5.Wireframes, Prototype	30 <sup>th</sup> October 2022												
6.User Feedback for your Prototype	06 <sup>th</sup> November 2022												
7.Implementation	09 <sup>th</sup> November 2022												
8.Final Presentation	09 <sup>th</sup> November 2022												

Table 11 : Milestone Timetable

### 11.4 Problems Encountered

- Poor planning

Poor planning only results in delays and project failure. It will also infuriate everyone concerned. The success of any endeavour hinges on careful planning. As a result, we first created the organizational structure, project scope, risks, and goals.

- Scope creep

Working with stakeholders that are unclear about what they want and do not have a specific objective in mind can be frustrating. This poses significant risks that could ultimately affect every facet of the project. We did collaborate with stakeholders to gather data, compile needs, create draft specifications, and clearly define goals. Put in place a change management procedure. We explained how impromptu additions, deletions, or changes would affect the project's restrictions. We did create a thorough scope management plan that outlines how to manage and prevent scope creep, and routinely remind stakeholders of the plan, especially when fresh changes are recommended. We did find that project teams who operate in more agile than predictive project contexts need to be prepared to make adjustments in response to feedback gathered at the end of each sprint or iteration.

- Illness of a team member

The other members shared the work until the team member recovered. After he recovered, he made aware of the things he had missed and shared the work again.

## 12 Conclusion

We had actually decided to make a mobile app under the Sustainable development goal of Peace, Justice and strong institutions. We also thought about the target of ensuring public access to information and protecting fundamental freedoms. Therefore, we have prepared a quick and easy App to help the public and foreign tourists to resolve their questions about the general law. Its name is Legal advisor. With this app, people who have legal issues can ask their questions through the app. Then people with knowledge and experience can answer them. That way they can get answers to their questions easily and quickly. Also, books related to law can be uploaded to this app in Pdf format for their further study. This app can also be used to inform about events and classes related to legal education. Here we gained a lot of experience in finding stakeholders as well as dealing with them. Many people have different opinions. We learned to take what we had to take from them. Stakeholders' opinions were often important to us. Through their feedback we were able to improve our app. We learned how to create an app according to the user's needs. When working in a group, we learned to manage each other's work at different speeds. Our team learned a lot about project management as well as sticking to a certain plan according to Milestone. We learned about the mine that moves forward with new technology as well as the mine that does research. We learned how to face the problems there.

## References

List any references you use for this report such as figures, tables, screenshots, or websites.

<https://docs.expo.dev/>

<https://reactnative.dev/>

<https://medium.com/@samarageln/upload-documents-to-firebase-using-react-native-expo-d00a84af1814>

## Appendix

### 12.1 Initial User Survey Responses

This includes survey/questionnaire questions you write to get relevant data.

### 12.2 Meeting Minutes

List all the meeting minutes that you record for this assignment.

### 12.3 Record Keeping

- Interview video conference:

[https://mysliit-my.sharepoint.com/:f/g/personal/it20620202\\_my\\_sliit\\_lk/EuW89k7WWp9GiEeEQUx4MvwBmf0SR1dF2uEmwsl77r2Hlg?e=zMzTvf](https://mysliit-my.sharepoint.com/:f/g/personal/it20620202_my_sliit_lk/EuW89k7WWp9GiEeEQUx4MvwBmf0SR1dF2uEmwsl77r2Hlg?e=zMzTvf)

- User Feedback Video

[https://mysliit-my.sharepoint.com/:v/g/personal/it20620202\\_my\\_sliit\\_lk/EeHYLiOzs59CtYGlpKJdLf0BCRSWPoLb7eSYYtoNSIClQQ?e=QgKJIY](https://mysliit-my.sharepoint.com/:v/g/personal/it20620202_my_sliit_lk/EeHYLiOzs59CtYGlpKJdLf0BCRSWPoLb7eSYYtoNSIClQQ?e=QgKJIY)

### 12.4 Toggl tracking

Use toggl to track each team members hours and present a neat summary here.

### 12.5 Links to Google Docs / MS Teams

### 12.6 Contribution Table

Student No.	Name	contributions
IT20620202	Jayawardhana D.M.P.S	All milestone and other
IT20600884	Ranasinghe R.A.K.M	All milestone and other
IT20603236	Jayasuriya M.N.N.J	All milestone and other
IT20636074	Savishka D.K.S	All milestone and other

Table 11 : Contribution Table