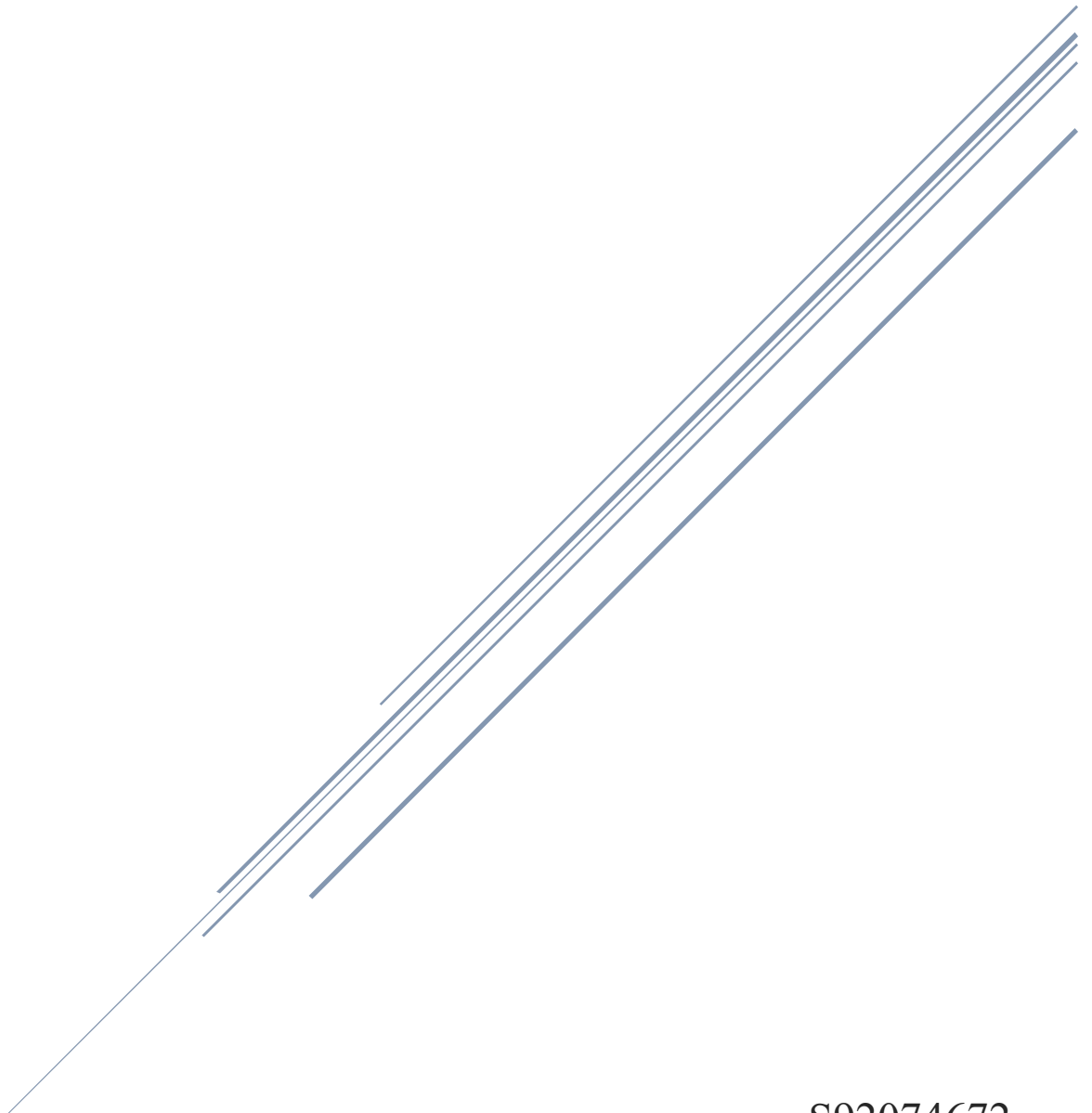THE OPEN UNIVERSITY OF SRI LANKA
BACHELOR OF SOFTWARE ENGINEERING
BATCH 2
ACADEMIC YEAR 2021/2022

EEI3269 – Introduction to Mobile Application Development

S92074672

Introduction

The fuel shortage is a huge problem in the country now and as modern problems need modern solutions,

Therefore, this application will be able to track the fuel availability in the nearest filling station in Sri Lanka.

Functional and Nonfunctional Requirements

Functional Requirements

    i.   Only authentic users and staff must have the access to the system.

    ii.   Only the admin team must be able to provide the information to the system and send messages to the users.

    iii.   Admin team must update the system and send messages as soon as they distribute fuel to the filling stations.

    iv.   Users must have access to live queue map

    v.   Users must be able to search by the type of fuel, district, city or town.

Nonfunctional Requirements

    i.   Performance.
The server should be able to perform desired tasks in a reasonable unit of time.

    ii.   Reliability.
The server should perform desired tasks as expected such as user registration to the system, user validation and authorization, search desired fuel type, sending and receiving alert messages, access to live queue map, and updating the system.

    iii.   Scalability.
The proposed system should be scalable to support an extended number of users.

    iv.   Ease of Use.
The proposed system should be user-friendly and easy to use without a learning process.

    v.   Maintainability.
The proposed system should be easy to maintain and extend. Minor modifications to the system would not cause harm to the running application.

Mind Map

A Mind Map is an easy way to brainstorm thoughts organically without worrying about order and structure. It allows us to visually structure our ideas to help with analysis and recall.

It is a diagram for representing tasks, words, concepts, or items linked to and arranged around a central concept or subject that allows the user to build a framework around the central concept.
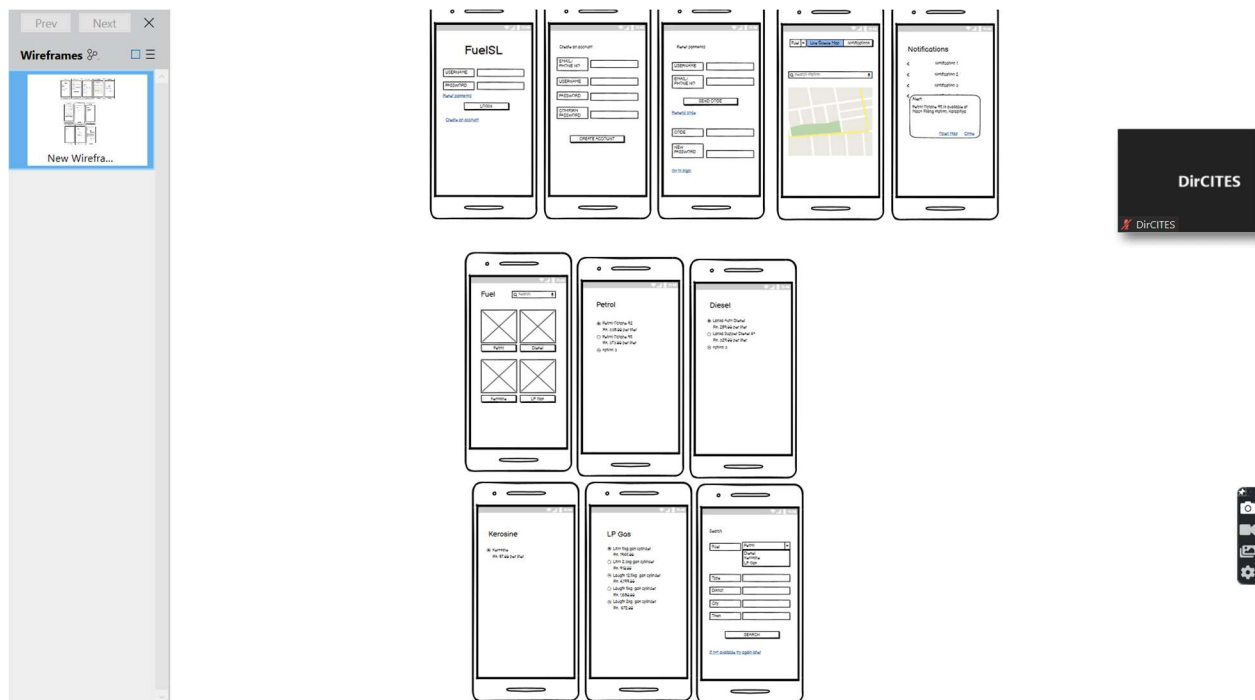
Figure 1.1- Screen capture of the wireframe for the FuelSL application. (Used tool-Balsamiq)

FuelSL

USERNAME [   ]
PASSWORD [   ]

Reset password

[LOGIN]

Create an account

Create an account

EMAIL/ PHONE NO [   ]
USERNAME [   ]
PASSWORD [   ]
COMFIRM PASSWORD [   ]

[CREATE ACCOUNT]

Reset password

USERNAME [   ]
EMAIL/ PHONE NO [   ]

[SEND CODE]

Resend code

CODE [   ]
NEW PASSWORD [   ]

Go to login

[Fuel ▾] [Live Queue Map] [Notifications]

[🔍 search station   🎤]

Notifications

< Notification 1
< Notification 2
< Notification 3

Alert
Petrol Octane 95 is available at Maco Filling station, Karapitiya

Open Map   Close

Fuel

[🔍 search   🎤]

Petrol   Diesel
Kerosine   LP Gas

Petrol

● Petrol Octane 92
   Rs. 338.00 per liter
○ Petrol Octane 95
   Rs. 373.00 per liter
⊖ option 3

Diesel

● Lanka Auto Diesel
   Rs. 289.00 per liter
○ Lanka Supper Diesel 4*
   Rs. 329.00 per liter
⊖ option 3

Kerosine

● Kerosine
   Rs. 87.00 per liter

LP Gas

● Litro 5kg gas cylinder
   Rs. 1945.00
○ Litro 2.3kg gas cylinder
   Rs. 910.00
⊖ Laugfs 12.5kg gas cylinder
   Rs. 4,199.00
○ Laugfs 5kg gas cylinder
   Rs. 1,680.00
⊖ Laugfs 2kg gas cylinder
   Rs. 672.00

Search

[Fuel] [Petrol   ▾]
           Diesel
           Kerosine
           LP Gas

[Type]   [   ]
[Disrict] [   ]
[City]   [   ]
[Town]   [   ]

[SEARCH]

If not available try again later