Summary

Requirements

Methodology

Logbook Requirements

* FRA1 – The user has the ability to start and stop a session. A session is when the user starts the logbook tracking and then stops it.
* FRA2 – The logbook must log their location at a given interval with timestamps during a session.
* FRA3 – The logbook will log at a 5-minute interval during a session.
  + FRA3.1 – The user can change this interval.
* FRA4 – The logbook must log what locks have been passed through with timestamps during a session.
* FRA5 – The user can filter the entries inside a session using a location.
  + FRA5.1 – The location filter will be a radius of any size in miles from a location of the users choosing. The location which the radius is centred on will be given as a name which google maps will find.
* FRA6 – The user can filter the entries inside a session using a period of time.
* FRA7 – The session will have a total amount of miles and hours travelled which can be seen by the user before the session has finished.
* FRA8 – The user can see past sessions which have been done.
  + FRA8.1 – Opening a previous session will show all the entries that were taken during that session.
* FRA9 – The user can filter sessions using a location.
  + FRA9.1 – The location filter will be a radius of any size in miles from a location of the users choosing. The location which the radius is centred on will be given as a name which google maps will find.
* FRA10 – The user can filter sessions using a period of time.
* FRA11 – The app will continue to record a session in the event that the connection to the internet is lost.
* FRA12 – The user can give a session a name, description, and change it later.
* FRA13 – The user can group sessions together forming a journey.
* FRA14 – The user can give a journey a name, description and change it later.

Interactive Map Requirements

* FRB1 – The user can see a map of the world with all the canals in the United Kingdom displayed.
* FRB2 – The map will have points of interests marked.
* FRB3 – The user can add notes to these locations of interest on the map.
* FRB4 – The user can add their own points of interest on the map if they are not already present.
  + FRB4.1 – A point of interest can be anything when the user is adding their own, it is not restricted to what is listed in FRC2.
* FRB5 – Other users of the app can see notes made about locations of interest.
* FRB6 – Other users can add notes to points of interest made by other users.
* FRB7 – Notes must be stored on the user’s phone and an online database if the user wishes other users to see their notes or other people’s notes / points of interest.

Notification Requirements

* FRC1 – The user will be able to choose what type of notifications they receive from the app.
  + FRC1.1 – Approaching a point of interest.
  + FRC1.2 – Canal maintenance and stoppages of multiple areas chosen by the user.
* FRC2 – The user will have a notification displayed on their phone when they approach a point of interest.
  + FRC2.1 – A lock is a point of interest.
  + FRC2.2 – A closed canal is a point of interest.
  + FRC2.3 – A mooring is a point of interest.

Platform Requirements

* FRD1 – The logbook must store all the session data on the phone using SQLite.
* FRD2 – The app must follow material design.
* FRD3 – The app must allow the user to navigate to other parts of the app with any type of android device.
* FRD4 – The app must support android devices running android 10+.
* FRD5 – The app must resize itself to support multiple resolutions and aspect ratios.
* FRD6 – The app will collect the canal data from the open canal map.
* FRD7 – The app will have a help page to teach users how the app functions.
* FRD8 – The app will contain links to useful websites regarding canals and narrow boats.
* FRD9 – The app will be compiled into an APK so it can be published and run-on android devices.