Project Planning
For Car pooling system

1) Identify the lifecycle to be followed for the execution of your project and justify why you have chosen the model.

   We will be using Agile of SDLC lifecycle
   We have chosen agile for the following reasons:
   1) Superior quality product
   2) Customer Satisfaction is ensured by keeping the customer in the loop and making
   changes according to the feedback, you deliver value to the customer and ensure that the
   the final product is truly according to the requirements.
   3) Agile works in small sprints that focus on continuous delivery and hence reduced risks
   are ensured.
   4) This methodology works in iterations which means that each sprint will be better than
   the last one and previous mistakes will not be repeated. Hence there is continuous
   improvement.
   5) When agile is truly implemented is implemented in a project team, it empowers with
   unparalleled flexibility. Teams work in smaller bursts and are supplemented by constant
   feedback and involvement of the product owner

Done By NR Ramith

2) Identify the tools which u want to use it throughout the lifecycle like planning tool, design tool, version control, development tool, bug tracking, testing tool.

Planning tool, Bug tracking tool: Jira software , This is a work management, planning, bug tracking tool for all kind of use cases.
Design tool: Draw.io

Version control: Github

Development Tools: MongoDB(Backend),HTML,CSS,JAVASCRIPT

Done by Jyothiraditya S

3) Determine all the deliverables and categorise them as reuse/build components and justify the same.

   a) Login page (Users are car owners, car poolers and admins):

      It is made up of:

      - Front-end consists of form for the user to login (re-use component, a template is being reused)
      - Backend process to validate username and password (re-use component)
      - Username and password to be stored in database (Build component)

   b) Registration page (Users are car owners, car poolers and admins):

      It is made up of:

- Front-end consists of form for the user to fill up the details in order to register (re-use component).
- Database for storing the details of the user (Build component).

c) Activity page (Users are car owners, car poolers and admins):

It consists of options for the user to view profile, host a ride, book a ride, complaints and to logout (Build component).

d) Route details module (Users are car poolers and admins):

It is made up of:

- Front-end form to allow the user to select pickup and destination point (Build component).
- Backend process to send pick-up point and destination point to the server (Build component).

e) Journey module (Users are car owners, car poolers and admins):

It is made up of:

- Front-end button to cancel ride (Build component).
- Functionalities to calculate the estimated cost and estimated distance for the ride (Build component).
- Functionality to calculate the total estimated time to reach the destination (Build component).

f) Host (Users are car owners, car poolers and admins):

It displays the total estimated distance and total estimated time to reach the destination to the user. It also displays the destination. (Build component).

g) Complaint raising (Users are car poolers and admins):

It is made up of:

- Front-end consists of viewing status of document verification and button to upload FIR the server. (Build component).
- Functionality to fetch the status of the document verification from the database (Build components).
- Database to store the FIR documents (Build component).

h) Admin verification (Users are Admins):

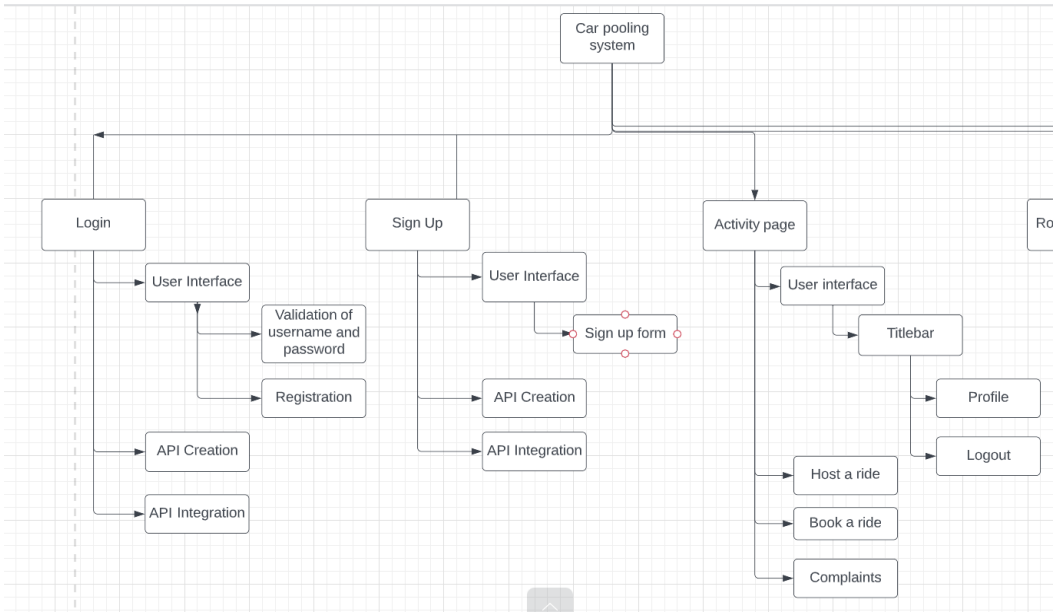
It is made up of:

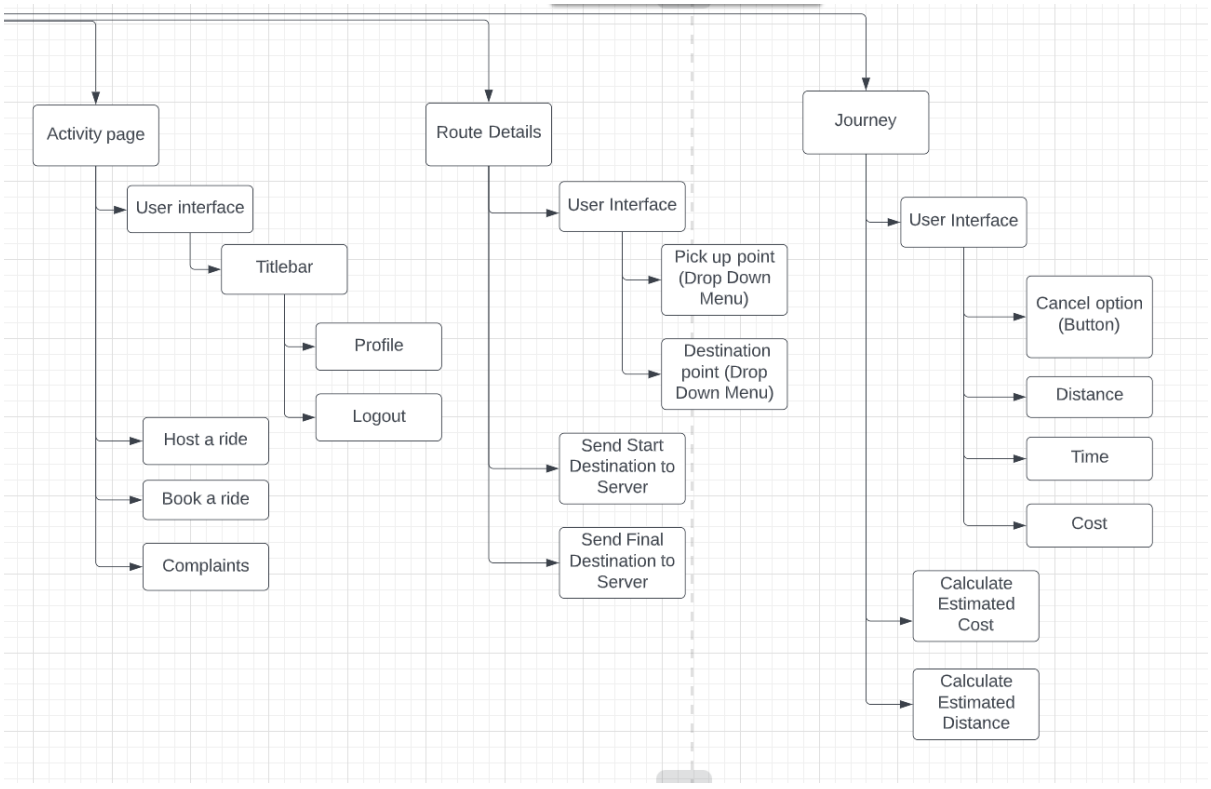
- Front-end consists of Tick button if the document is verified or a Cross button if the document is not verified (Build component).
- Displays the documents submitted by the passengers.
- Functionality to update the status of document verification in the database (Build component).

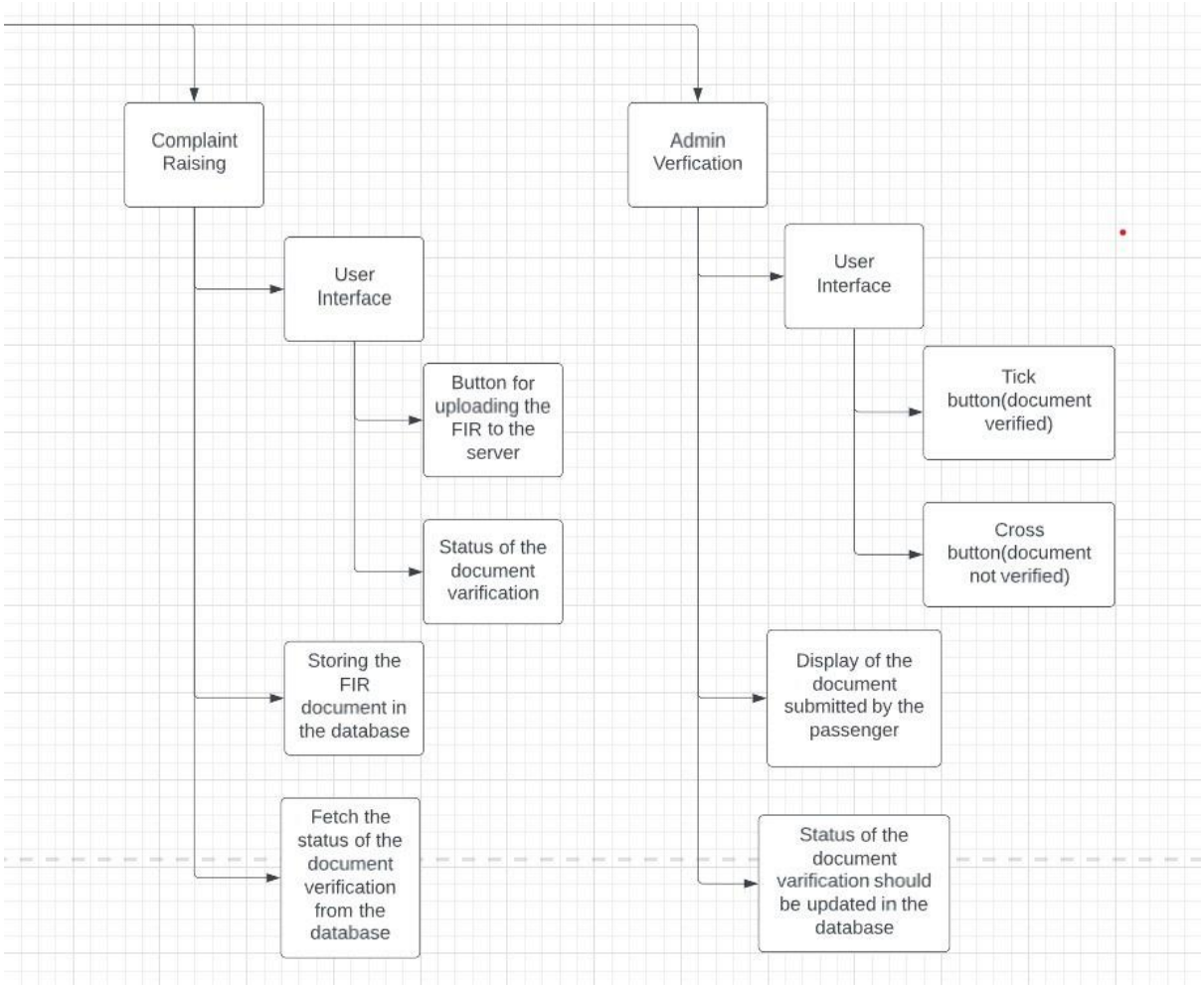
Login page and registration pages are reusable components as the templates are easy available hence time can be saved by reusing them rather than building it. Whereas most of the functionalities are built from scratch as they are specific to this application.

Done by Adarsh Puranik K

4) Create a WBS for the entire functionalities in detail.







Done by R Karthick Manikandan, Jyothiradiya S, Adarsh Puranik K, NR Ramith

5) Do a rough estimate of effort required to accomplish each task in terms of person months.

The mode is semi detached

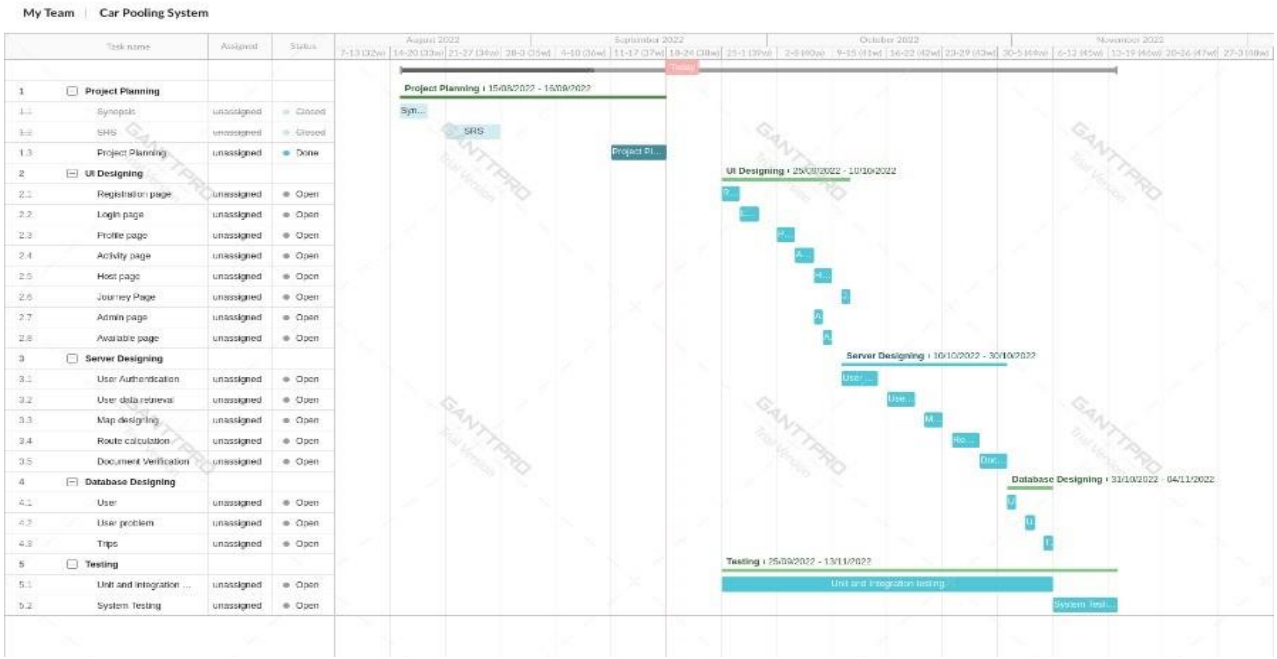
The project will have an approximate of 5KLOC

Effort = a((KLOC)^b) person months
a=3.0
b=1.12
Effort = a(KLOC)^b

= 3*(5)^1.12
= 18.196 PM

Done by R Karthick Manikandan

6) Create the Gantt Chart for scheduling using any tool.



Done by Jyothiraditya S, R Karthick Manikandan, NR Ramith, Adarsh Puranik K