

REQUIREMENTS:

- Here the requirements are collected from the customer by the feedback team.
- It can be collected using various ways like surveys, focus groups, Conducting market research etc..,
- For this topic the cutomer requirements are
- Multi-Modal Support: The app should support all modes of public transport in Chennai, including buses, trains, metro, trams, and ferries, allowing users to seamlessly switch between different modes during their journey.
- Easy Registration and Account Setup: Users should be able to create accounts quickly with Aadhar and UPI for hassle free experience.
- Journey Planning and Route Information: The app should provide comprehensive journey planning features, suggesting the most optimal routes and modes of transport to reach the user's destination.
- Real-Time Tracking: Real-time tracking of buses, trains, and other transport modes should be integrated into the app to help users plan their journeys accurately and reduce waiting times.
- Multi-Language Support: The app should support multiple languages to cater to a diverse user base in Chennai.

PLANNING

- In this stage the given requirements are analysed and based on that, All the necessary planning and estimation is carried on
- For the current product, these are the estimations, schedules and plans
- The Development of the app requires approximately 20-30 employees. The total cost is estimated to be around 70 lakh rupees
- The employees will be divided into the following teams
- Frontend team the team responsible for the App's frontend
- Backend team the team responsible for the App's backend
- Database team the team tasked with effective and efficient manipulation and usage of data for the app
- Support team -The team that is tasked to look out for customer grievances and the maintenance of the app after release. They will be hired once the app is released
- Financial and legal team Management of funds and checking legality of the development of the app
- The app is expected to be completed by an year, complete with all the features that are required

MODELLING

- In software engineering, modeling refers to the process of creating abstract representations of a software system's various aspects, behaviors, structures, and interactions.
- These models help software developers, architects, and stakeholders better understand, communicate, and design complex software systems.
- For our case, we will hold a meeting and brainstorm ideas for the model and create a scratch model in paper.
- After which we can create a mockup UI using apps like figma.
- We will also decide on what programming languages it needs to be built on, What payment gateway is to be used, How the public vehicles can be tracked etc.
- When the model is approved it moves on to the construction stage.
- The modelling phase is expected to take minimum 4-6 months

CONSTRUCTION

- During the construction phase, developers write code based on the design specifications, transforming the abstract designs and models into functioning software components and modules.
- Here for our app, we will begin the coding during the middle of the 5th or the 6th month from now
- At this phase, frontend engineers will be working on making the app usable and presentable
- While the backend engineers will focus on linking the frontend of the app to the databases, payment gateways etc..
- A group of engineers will also be tasked with the installation of GPS in the public vehicles for easy tracking of the vehicle in real time and then linking the data from it to the app.
- After the coding phase is done, the app will be tested in a closed group, and feedback will be gathered and worked upon. After which open beta test will be done where the same procedure is carried on and the bugs and issues will be fixed along with the testing
- This phase is expected to end by the 8th or 9th month from now

DEPLOYMENT

- Deployment in software engineering refers to the process of releasing and making a software application or system available for use by its intended users or customers.
- Deployment includes various activities to ensure that the software runs smoothly and reliably in its target environment, meeting the needs and expectations of users.
- This phase happens once construction and testing is done and now the app is ready to be released for the public to use.
- All the necessary documents and legal paperwork are done and the app is released
- After which there will be a team tasked with responding to the customer grievances.
- Another team will be tasked with the upkeep and maintenance of the app, along with addition of new routes, features that might be needed in the future.