## **Feasibility Study:**

Feasibility study is the degree to which a project can actually be carried out successfully. A feasibility study is conducted to assess the solution's viability, which establishes whether it is viable and implementable in the program. The feasibility study takes into account details like the availability of resources, software development costs, the advantages of the software to the business once it is built, and the costs associated with maintaining it. The outcome of the feasibility study should be a report recommending whether or not the requirements engineering and system development process should be continued.

## **Technical feasibility:**

Technical feasibility studies are essential because they aid stakeholders in understanding whether, from a technological perspective, the project is indeed feasible. It offers useful information that can affect the decision to move on with the project. It evaluates the viability of a given project or business endeavour by technically feasible in their implementation. It concentrates on assessing whether the required infrastructure, resources, skills, and technology are in place or attainable to complete the project successfully. Examines the technical proficiency and qualifications of the members of the software development team. evaluates the stability and maturity of the applicable technology, ensures that the software development technology has a sizable user base so that people may be consulted when issues arise or improvements are needed.

This cab booking system uses latest web technologies. Within the allotted time and money, the technologies employed can be modified to meet user requirements in the software, as well as new upgrades. Evaluate the scalability of the cab service module to handle an increasing number of vehicles and users over time.

Integrating a cab service module into the existing cab booking system revolves around assessing the compatibility, scalability, and technological capabilities required for seamless functionality. Integration of real-time tracking and GPS technology is essential for providing accurate location data, route optimization, and estimated arrival times for both passengers and drivers. This requires careful consideration of data security and privacy measures to protect sensitive information, such as user details and payment data, in compliance with relevant regulations.

- For front end which uses HTML, CSS
- For the back end which uses Python- Django

## **Operational feasibility:**

evaluates the degree to which the necessary software executes a sequence of operations to meet user and business criteria. This feasibility involves imagining whether the software will function after it is produced and be functional after it is installed. It is dependent on human resources (the software development team). The following duties are also carried out by operational feasibility. evaluates the priority of the issues raised by the user requirements, determines whether the software development team's solution is appropriate, examines how well people will accept new software, determines whether the software development team's alternatives have pleased the organization.

The operational feasibility of implementing a cab booking system project that caters to both cars and bikes is promising. This system's flexibility and scalability allow it to adapt to various modes of transportation efficiently. The project's operational feasibility stems from its ability to streamline booking processes, optimize route planning, and ensure timely arrivals for passengers, whether they prefer cars or bikes. Additionally, it can enhance operational efficiency for service providers by automating dispatch, reducing idle times, and increasing fleet utilization. By offering a seamless and versatile booking experience, this project demonstrates strong potential for successful implementation and operational excellence in the dynamic and evolving transportation industry.

Analyze the potential for collaboration with existing cab companies and transportation providers to leverage their resources and expertise in implementing and scaling the cab service module. Consider the regulatory and compliance requirements associated with operating a cab service module, including licensing, insurance, and data privacy regulations.

## **Economic feasibility:**

assesses whether the necessary software may bring an organization financial benefit. It includes the expenses related to the software development team, the expected cost of the necessary hardware and software, the expense of conducting a feasibility study, and so on.

Expenses associated with software development that result in long-term benefits for a business Costs associated with doing a comprehensive software study, including requirements elicitation and requirements analysis cost of the development team, software, hardware, and training.

The economic feasibility of the Cab Booking System project, adaptable for bikes as well, is promising. This versatile platform can efficiently utilize existing infrastructure to cater to both taxi and bike transportation, widening its market appeal. It offers revenue streams through service commissions, advertising partnerships, and subscription models for riders and drivers.

Moreover, by optimizing route planning and reducing idle time for drivers, it can enhance profitability. The project's economic viability is further bolstered by the growing demand for convenient, app-based transportation solutions, making it a potentially lucrative venture with a sustainable financial outlook.

Assess the potential cost savings and revenue opportunities offered by the cab service module, such as reduced fuel consumption, increased vehicle utilization, and additional revenue streams from service commissions and advertising partnerships. Analyze the Return To Investment for the cab service module, considering factors such as initial investment, ongoing maintenance expenses, and projected revenue growth over time.

Evaluate alternative funding sources and business models for sustaining the economic viability of the cab service module, such as subscription-based pricing models, strategic partnerships, and investment opportunities.