Feasibility Study

Feasibility is defined as the practical extent to which a project can be performed successfully. To evaluate feasibility, a feasibility study is performed, which determines whether the solution considered to accomplish the requirements is practical and workable in the software. Information such as resource availability, cost estimation for software development, benefits of the software to the organization after it is developed and cost to be incurred on its maintenance are considered during the feasibility study. The results of the feasibility study should be a report that recommends whether or not it is worth carrying on with the requirements engineering and system development process.

If a system does not support the business objectives, it has no real value to the business. The objective of the feasibility study is to establish the reasons for developing the software that is acceptable to users, adaptable to change and conformable to established standards. Various other objectives of feasibility study are listed below.

- To analyse whether the software will meet organizational requirements
- To determine whether the software can be implemented using the current technology and within the specified budget and schedule
- To determine whether the software can be integrated with other existing software.

The information assessment phase identifies the information that is required to answer the three questions set out above. Once the information has been identified, you should question information sources to discover the answers to these questions. Some examples of possible questions that might ask:

Types of Feasibility

Various types of feasibility that are commonly considered include technical feasibility, operational feasibility, and economic feasibility.

1. Technical feasibility assesses the current resources (such as hardware and software) and technology, which are required to accomplish user requirements in the software within the allocated time and budget.

The Online Portal for patient and doctors is a complete web based applicatons. The main technologies used in this project are

- HTML

- CSS

- JavaScript

- Ajax

All the above technologies are freely available and the skills required to use these technologies are manageable. Other resources includes

- Programming device: Laptop with a good processor.

- Programming tools: Various IDE that support all technologies.

- Hosting Space: It is also freely available.

The specified requirements can be implemented using the available hardware and software. Time limitaton of the system development and the ease of implementing using these technologies are manageable. So the proposed project is technically feasible.

The technologies that can be implemented

- Machine Learning: This technology is used for implementing prediction module

- Recommendation System: It is used for implementing suggestion system in various modules.

- Mobile Application: It improves flexibility of users in using the system.

- Artificial Intelligence: Applications such as chatbot are implementing using this technology.

2. Operational feasibility assesses the extent to which the required software performs a series of steps to solve business problems and user requirements. This feasibility is dependent on human resources (software development team) and involves visualizing whether the software will operate after it is developed and be operative once it is installed.

The aspect of study is to check the level of acceptance of the system by the user. This includes the process of training the user to use the system efficiently. The user must not feel unfriendly by the system, instead must accept it as a necessity for them. The acceptance by the users depends on the methods that are provided to know the user about

the system and to make them familiar with it. The proposed mode of operation make maximum use of available resources, including people, time, and flow of form.

The mobile application for booking helps patient to book appointments more flexibly. It allow to handle information instantly and in real-time. The application facility help doctors to scan the prescription.

3. **Economic feasibility** determines whether the required software is capable of generating financial gains for an organization. It involves the cost incurred on the software development team, estimated cost of hardware and software, cost of performing feasibility study, and so on.

The system being developed is economic with the hospital point of view. Firstly web based system eliminate the use of paper works completely. The data generated will be error free and accessible anytime. The required timeframe would need to be set by the organization. Since this system can be used in hospital field, it will help patient to take appointment easily avoiding the time constraints. So it is economically feasible.