

Feasibility Study

ColonCare is a web-based platform that serves as a valuable resource for individuals seeking comprehensive colon health and cancer care. This user-centric system has been thoughtfully developed to cater to the specific needs of three key user groups: administrators, doctors, and patients, offering tailored functionalities to each. Administrators benefit from unique login credentials and access to essential tools that empower them to efficiently manage doctor specializations, streamline the onboarding of medical practitioners, and oversee the center's appointment booking process through real-time access to appointment data and patient lists. Patients, on the other hand, experience a user-friendly interface that simplifies the healthcare journey, allowing for easy registration, appointment scheduling with preferred doctors, informed decision-making via detailed doctor profiles, and the convenience of accessing and uploading their medical history. Patients can also manage their profiles and passwords securely. Likewise, doctors have specialized login access, enabling them to review patient lists, manage appointments, and update their professional profiles accurately, making the appointment management process swift and efficient. In essence, **ColonCare** embodies a user-centric approach to appointment booking and management, enhancing the experiences of patients and healthcare providers within the colon cancer center while optimizing the overall efficiency of healthcare delivery.

Types of Feasibility

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

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. Technical feasibility also performs the following tasks.

- Analyses the technical skills and capabilities of the software development team members
- Determines whether the relevant technology is stable and established
- Ascertains that the technology chosen for software development has a large number of users so that they can be consulted when problems arise or improvements are required.

The "ColonCare" project is technically doable because we have the right technology and skilled people. It can work well with other healthcare systems, and we can keep patients' information safe. The website will be easy to use, even on phones, and we'll make sure it keeps working even if there are problems. We'll also update it regularly and help if people have technical issues.

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. Operational feasibility also performs the following tasks.

- Determines whether the problems anticipated in user requirements are of high priority
- Determines whether the solution suggested by the software development team is acceptable
- Analyzes whether users will adapt to a new software
- Determines whether the organization is satisfied by the alternative solutions proposed by the software development team.

The "ColonCare" project is operationally feasible because it fits well with how the colon cancer center already works, and it won't cause too much disruption. It's like adding a helpful tool that everyone can use without major changes in how things are done. Plus, we can easily follow the rules and laws related to healthcare. So, it's practical and makes sense for our operations.

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.

- Cost incurred on software development to produce long-term gains for an organization
- Cost required to conduct full software investigation (such as requirements elicitation and requirements analysis)
- Cost of hardware, software, development team, and training.

The "ColonCare" project makes economic sense because while there are costs to create and run the website, we can make money from it. People will pay to use it or see ads on it, so it's a good investment that can help us financially in the long run. So, it's a smart choice from an economic standpoint.