Jana Abi Farraj 202304581

Rani bou ghannam 202306058

Abdallah Al Markabawi 202202313

Mohammad Mansour 202300908

**Internal Feasibility Study:**

**1)** The need for a hospital management system is evident in improving patient care, streamlining administrative tasks, and enhancing overall operational efficiency within healthcare facilities. Such systems can facilitate better patient engagement, appointment scheduling, electronic health records management, and billing processes, ultimately leading to improved healthcare service delivery and patient satisfaction.

**2)** Utilizes information from an implemented project that involves assessing the availability and adequacy of the necessary resources required for implementation. This includes evaluating factors such as skilled personnel, hardware and software resources, infrastructure, and funding. By leveraging the knowledge and experience gained from the implemented project, the hospital can determine if it has the resources needed to successfully implement the management system and ensure its smooth operation.

**3)** A HMS can be very profitable because, in the long term, it can lead to significant cost savings for hospitals as well as reduce the paperwork and automate repetitive tasks, which are all efficient in terms of labor, time, and resources. On the revenue side, a HMS system can improve revenue cycle management by facilitating accurate billing, coding, and claims processing.

**4)** An HMS is unlikely to directly harm society or contradict societal norms, but potential considerations should be taken into account:

Health Management Systems (HMS) store sensitive patient data electronically, requiring robust privacy and security measures to prevent breaches. However, the introduction of HMS could worsen healthcare disparities if certain populations lack necessary resources or skills. Therefore, designing the system with accessibility in mind and providing training and support is crucial.

The hospital management system streamlines medical procedures, improving healthcare service quality and adhering to industry norms. It requires understanding the process and a reliable software development business.

**External Feasibility Study:**

1. **Market Feasibility:**

* Conduct surveys among healthcare professionals, administrators, and patients to understand specific needs and preferences.
* Identify features and functionalities most in demand within the target market.

1. **Legal and Regulatory Feasibility:**

* Ensure compliance with healthcare data protection laws and patient privacy regulations.
* Develop user agreements and disclaimers to address legal concerns.

1. **Competitive Feasibility:**

* Assess the unique value proposition of the system compared to existing solutions.
* Evaluate how the system addresses specific needs, enhances operational efficiency, and ensures compliance with industry standards.

1. **Marketing Sustainability:**

* To evaluate the marketing sustainability of a hospital management system (HMS), an external feasibility study is required. This involve evaluating a sustained market presence, competitive analysis, and market demand.

1. **Market Demand & Competitive Analysis:**

* Market analysis involves understanding the present and anticipated demand for the HMS in the healthcare industry, taking into consideration factors including patient flow, service needs, and technical developments.
* Competitive analysis is the process of evaluating the market's current level of competition, identifying important companies, and weighing their pros and cons to create successful marketing plans.

1. **Environmental Impact & Legal Considerations:**

* Promotes wise energy consumption, waste management practices, and the adoption of environmentally sustainable measures.
* Ensuring adherence to healthcare regulations, data protection and privacy laws, as well as obtaining the necessary approvals and permits.

1. **Economic Feasibility:**

* Considers cost of development, implementation, and maintenance when assessing economic feasibility.
* Evaluate the potential benefits the system brings to the organization and its patients.
* Take into account the expenses associated with software and hardware requirements.
* Factor in the costs of training staff and ongoing operating expenses.
* Depends on the system's ability to meet patients' requirements.

|  |  |
| --- | --- |
| **Cost type** | **Costs per month (USD)** |
| Development | 4,750$ |
| Hosting | 1,500$ |
| Marketing | 2,000$ |
| App Store Fees | 100$ |
| Office Rents | 2,000$ |
| Electric bills | 300$ |
| ISP fees(internet) | 100$ |

|  |
| --- |
| **Cost Saving Areas:** |
| Reduced administrative costs |
| improved resource utilization |
| minimized errors and redundancies |
| enhanced inventory management |
| optimized staffing levels |
| preventive maintenance and asset management |
| efficient patient flow management |
| improved clinical decision making |
| streamlined billing and claims processing |

**Break-even analysis:**

**Scenario:**

The development team working on the hospital management system has invested a total cost of 38,000$ in software development from product discovery, UI design, Development and QA. The system is intended to offer various functionalities to streamline hospital operations. For sustainability, the team proposes a subscription-based model for users, with a monthly fee set at 10$. Additionally, the system will deduct a commission of 3% from any financial transactions facilitated through it, such as patient payments or insurance claims processing.  
  
**Fixed costs:**  
Initial development cost: 38,000$.  
Variable costs:  
The variable costs consist of hosting and infrastructure costs, transaction processing fees, data storage costs, customer support and maintenance, and lastly licensing or Royalty fees which are a total of 28% of the total revenue generation.  
  
**Revenue Streams:**  
Subscription fee: 10$ per month

Transaction fee: 3% per transaction

|  |  |
| --- | --- |
| **Description** | **Amount/Rate** |
| **Fixed Costs** |  |
| Initial Development Cost | 20,000$ |
| **Variable Costs** |  |
| Variable cost of the total revenue generation | 28% |
| **Revenue Streams** |  |
| Subscription Fee (per month) | 10$ |
| Transaction fee (per transaction) | 3% |
| **Breakeven Points** |  |
| Subscription Fee per User | 10$ |
| Number of Users Needed | 715 Users |
| Transaction Fee | 3$ |
| Numbers of Transactions Needed | 1,667 |

**Google Form**

https://docs.google.com/forms/d/e/1FAIpQLSd\_KPLbbnb0O\_CBTCAkSQipICGYBcYsrwmXE3YiOtNR4bjMEw/viewform?usp=sf\_link