REQUIREMENT ANALYSIS & FEASIBILITY STUDY

ECONOMIC FEASIBILITY

The economic feasibility of an e-diagnostic laboratory management system, such as the proposed OneHealth, is marked by its potential to generate substantial cost savings and optimize resource utilization. By reducing expenses associated with physical infrastructure, paper documentation, and manual processes, the system inherently contributes to operational efficiency. The elimination of fuel costs for patients, streamlined processes for health monitoring device purchases, and flexible location choices for home services all work synergistically to minimize financial burdens on both healthcare providers and users. The integration of e-commerce functionality into the OneHealth system enhances its economic feasibility. By offering health monitoring devices through an online store, the platform opens new revenue streams. The e-commerce module also contributes to cost savings by minimizing manual processes in product transactions.

TECHNICAL FEASIBILITY

The technical feasibility of the OneHealth e-diagnostic laboratory management system is crucial for its successful implementation. It involves assessing and enhancing the current technology infrastructure, ensuring compatibility with web hosting and databases, and recruiting skilled software developers proficient in Django and HTML/CSS. Seamless integration with third-party services, such as payment gateways and shipping providers, is essential, and the platform's architecture must be scalable to accommodate growth. Robust security measures, a mobile-friendly design, and performance optimization are prioritized. Compliance with data protection regulations and a comprehensive evaluation of financial resources for development and maintenance further contribute to the platform's technical feasibility.

BEHAVIORAL FEASIBILITY

The behavioral feasibility of the proposed OneHealth e-diagnostic laboratory

management system is pivotal for its successful integration into the healthcare landscape. To ensure its viability and effectiveness, several key considerations must be evaluated. Firstly, assess the availability of essential resources, including skilled human capital, necessary technology, and infrastructure within the project's allocated time frame and budget. Recognize the existing skill set of healthcare professionals and identify potential needs for additional training or recruitment. Evaluate how seamlessly OneHealth will integrate with current healthcare processes, encompassing sample collection, result retrieval, and patient management.Solicit user feedback to gauge acceptance and pinpoint areas for improvement, ensuring that the system aligns with the behavioral expectations of both healthcare providers and patients. Behavioral feasibility is positively influenced by the addition of e-commerce capabilities. Users, including patients and healthcare professionals, benefit from the convenience of purchasing health monitoring devices directly through the platform. The system's adaptability to user preferences and needs contributes to positive user behavior. It is crucial to anticipate and address any potential resistance to change as the platform expands its services to include e-commerce.

FEASIBILITY STUDY QUESTIONNAIRE

1.Project Overview?

The Online Diagnostic Lab Management System is a comprehensive web platform designed to streamline the process of diagnostic testing and health monitoring for patients. This system seamlessly integrates laboratory services, test bookings sample collection and purchasing of health monitoring devices. Users can register on the platform, access a range of diagnostic tests, book appointments, receive test results,purchasing health monitoring devices providing a user-friendly and efficient healthcare management experience.

2.To what extend the system is proposed for?

The proposed OneHealth system is designed to address the comprehensive spectrum of diagnostic healthcare services, offering a holistic solution that goes beyond the limitations of traditional systems. OneHealth aims to streamline the entire diagnostic process, from test bookings to result notifications, making it a full-service e-diagnostic laboratory management system. This system is not confined solely to the booking aspect but extends to diverse features, including flexible location choices, the purchase of health monitoring devices at any time, and home-based routine checkups. It caters to the diverse needs and preferences of users, providing a 24/7 booking availability and a user-friendly interface. By offering these extensive functionalities, OneHealth aspires to transform and enhance the overall healthcare experience, promoting accessibility, efficiency, and user empowerment.

3.Specify the Viewers/Public which is to be involved in the System?

OneHealth is designed to serve a diverse range of users within the healthcare ecosystem, creating a user-friendly platform for both healthcare providers and patients. Patients seeking diagnostic services, caregivers, and healthcare professionals such as lab technicians and physicians form a crucial part of the user base. Administrative staff managing appointments and billing, healthcare administrators overseeing operations, and technology support staff ensuring system maintenance are also included. Additionally, third-party service providers and regulatory authorities are part of the audience. The platform engages not only healthcare providers and patients but also users seeking health-related products, expanding its reach to include those interested in health monitoring device purchases.

4.List the Modules included in your System?

✧ Admin Module:
   -User Management: Handling permissions, appointment details.
   -Laboratory Management: Overseeing lab operations and test services.
   -Booking Management: Managing appointment bookings, secure payments.
   -Product Management:Adding and updating products.
   -Staff Management: Handling staff personnel details.

◆ Patient Module:

- Registration and Login: User account creation and authentication.

-Appointment Booking: Browsing available services, scheduling appointments, and making secure payments.

-Purchasing products

-Account Management: Updating personal information.

◆ Staff Module:

-Sample Collection: Confirming and managing sample collection from patient addresses.

-Appointment Management: Viewing and managing patient appointments.

◆ Deliveryboy module:

-Shipping Management: Oversees the dispatch, tracking, and timely delivery of health monitoring devices purchased through the e-commerce platform.

-OTPVerification: Ensures secure deliveries by implementing OTP verification, enhancing the safety and accuracy of the product handover process.

-Profile Management: Allows for the effective management of delivery personnel profiles, including updating personal information and tracking performance metrics.

5. Identify the users in your project?

The OneHealth involves four types of users: admin,staff ,patients and delivery boy

6. Who owns the system?

Administrator

7. System is related to which firm/industry/organization?

The OneHealth system is related to the healthcare and diagnostics industry. It is designed to streamline and enhance the diagnostic laboratory management process, providing online access for patients to book appointments, receive test results, and purchase health monitoring devices. The system caters to healthcare providers, administrative staff, patients, and delivery personnel, offering a comprehensive solution for managing diagnostic services and e-commerce of health monitoring

devices. With a focus on improving accessibility, efficiency, and user empowerment in the healthcare domain, OneHealth is tailored for individuals seeking convenient and effective healthcare management solutions.

8. Details of person that you have contacted for data collection.

Name: Arya P

Position: Lab Assistant, Elister Healthcare,Kollam Sasthamcotta

9. Questionnaire to collect details about the project?

a) What are the prime details collected from the patients?

Name,Age,Mobile no and which test need to be test.

b) How there details are filed and included in the laboratory?

Details are stored using different softwares (named "grapes").

c) On What basis the patients are treated?

One who is registered with the lab and has a file .For their details and booking requirements MR no: is needed.It is a 6 digit number.Instead of MR no: Mobile phone number can be used which is used at the registration time.MR no:is a permanent number.By that no: complete test details of the patient can be viewed by the lab manger.

One who is not a regular customer they provided a bill with OP no:.It is a temporary 4 digit no:. and always change.

d) How often the results of test are issued?

Based on the situation the results are issued.That is for an early morning lab test almost 1 hr waiting is requested to patients for their result.Other cases manage it by based on test.For outside testing reports it might takes days for getting results.

e) How the results are informed?

Through email or whatsApp. The test result updated by the lab technicians can be automatically updated in the reception system also.By then the receptionist issue reports.

f) How the testing procedure is scheduled and managed?

One who come to lab for testing first they need to take the bill from reception.Based on that billed details the lab technicians guide the patients.The report is only issued after the bill registration scenario.

g) How the payment is managed?Is it is necessary for paying complete bill for getting report?

By the wish of patient, one can pay a minimum amount at beginning of billing or not and after the complete test they can pay the balance amount.

If someone not able to pay the complete amount and they need the report urgently they will included in the pending bill.Pending will always be red marked.

h) How the home service is managed?

The patient enquires to the lab through phone call for home service and the name,address,place,test details are collected from the patients.The amount is combined with the testing amount and service charge.for minimum distances service charges are not taken.

i) How their bill are managed?

After taking the samples, their bill is to be included in the pending section.The result is issued only after complete payment.

j) What are the basic requirements needed for home services?

The home services is based on customer priority.But the time schedule and staff availability is also analysed for it.

k) working time of labs?

24 hrs.Staff are scheduled with regular interval of days and times.