

# Online Diagnostic Lab Test Booking Application

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**Abstract-** The online diagnostic laboratory system is a APPbased application designed to manage tasks in medical laboratories This system manages several modules such as patient registration, booking for laboratory tests, generation of appointment evidence, generation of patient test result, and its delivery via email and SMS prompts. It aims at aiding the laboratory staff to manage laboratory operations easily. The system was designed as a client/server web-based system, which was implemented using the two technologies: The Front-end (Graphical User Interface – GUI) was implemented using Flutter App Development. The Back-end that is the Database was implemented using Firebase and NodeJS .An evaluation of the system determined that it achieved the set objectives. The developed system is an efficient, usable and reliable diagnosis laboratory management system

**Keywords-** App-based system, Flutter, Diagnostics, Databases, Hybrid applications.

## Ease of Use

The goal of any system development is to develop and implement the system cost effectively, user-friendly and most suited to the user's analysis is the heart of the process. Analysis the study of the various operations performed by the system and their relationship within and outside of the system. During analysis, data collected on files, decision points and transactions handled by the present system. Different kinds of tools are used in analysis of which interview isa common one.

## I. LITERATURE SURVEY

The paper address the method of booking blood test online through android or ios device.This application enables end user to book any blood test & health checkup at one click.The proposed system is an “**online diagnostic Blood test booking system**”. Its main aim is to bring together various diagnostic working, researches on one single App platform that is also online (so that it is accessible for everyone). • The system allows automate diagnosis system.

- Provide Appointment Booking facility
- Allows for faster service.
- Allows increased sales and profits for diagnostic labs.
- Easy, user friendly GUI.

Modules:-

1. Patient App: User case diagram from my latex report[patient]
2. Admin App :User case diagram from my report[admin]
3. Payment Gateway Dashboard

- Anonline payment gateway(PG) is a tunnel that connects your bank account to the platform where you need to transfer your money.
- A payment gateway ensures the security of the information you put in.
- First things first, the entire transaction is carried out through an HTTPS web address. This is different from the HTTP as the S in the HTTPS stands for Secure. The transaction takes place through this same tunnel
- As a result of the hash function, the system often uses a signed request from the merchant to validate the request of the transaction. This signed request is a secret word, which only the merchant and the payment gateway know
- To secure the payment page result of the process, the IP of the requesting server is verified to detect any malicious activity
- Virtual Payer Authentication (VPA) implemented under 3D protocol & It uses additional layer of security & help online vendor & patient to authenticate each other easily.



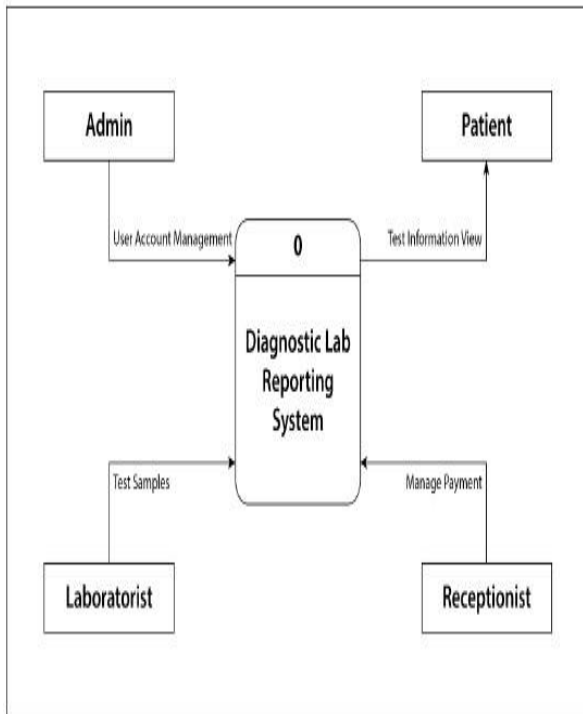
## II. OBJECTIVES OF THIS PROJECT

- Define Diagnostic System
- Recording information about the Patients that come.

- Generating bills.
- Recording information related to diagnosis given to Patients.

**III. FLOW CHART FOR SYSTEM**

Flow chart for “ONLINE DIAGNOSTIC LAB TEST BOOKING APPLICATION”



**Hardware requirement**

- Microsoft® Windows® 7/8/10 (64-bit) □ 4 GB RAM minimum, 8 GB RAM recommended.
- 2 GB of available disk space minimum,
- 4 GB Recommended (500 MB for IDE + 1.5 GB for Android SDK and emulator system image)
- 1280 x 800 minimum screen resolution.

**Software requirement**

1. Flutter SDK. See the Flutter installation instructions.
2. Optional: An IDE that supports Flutter. You can install AndroidStudio, IntelliJ IDEA, or Visualandinstall the Flutter plugins to enable language support and tools for refactoring, running, debugging, and reloading your desktop app within an editor. See setting for more details

**Advantages**

Using this application we can retrieve patient’s history with a single click.

1. Provide Appointment Booking Facility at One click.
2. processing information will be faster.
3. It guarantees accurate maintenance of Patient details.
4. It easily reduces the book keeping task and thus reduces the human effort and increases accuracy speed.
5. Easy to use.

**Existing System Limitations**

1. Users have to wait in a long queue for a blood test.
2. Unable to find the Nearest Lab
3. Users have to visit twice to get the Report.
4. Users are unable to book a test online, Applications

**IV. CONCLUSION**

The developed system provides effective and reliable processing of most tasks performed in a medical laboratory organization. As a App based system, it affords users the opportunity to book appointments for laboratory tests and also receive test results from remote locations. The graphic user interface is very friendly

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