

# DiagnoGenie

PD3: Blastoff

Submitted by – Group 5

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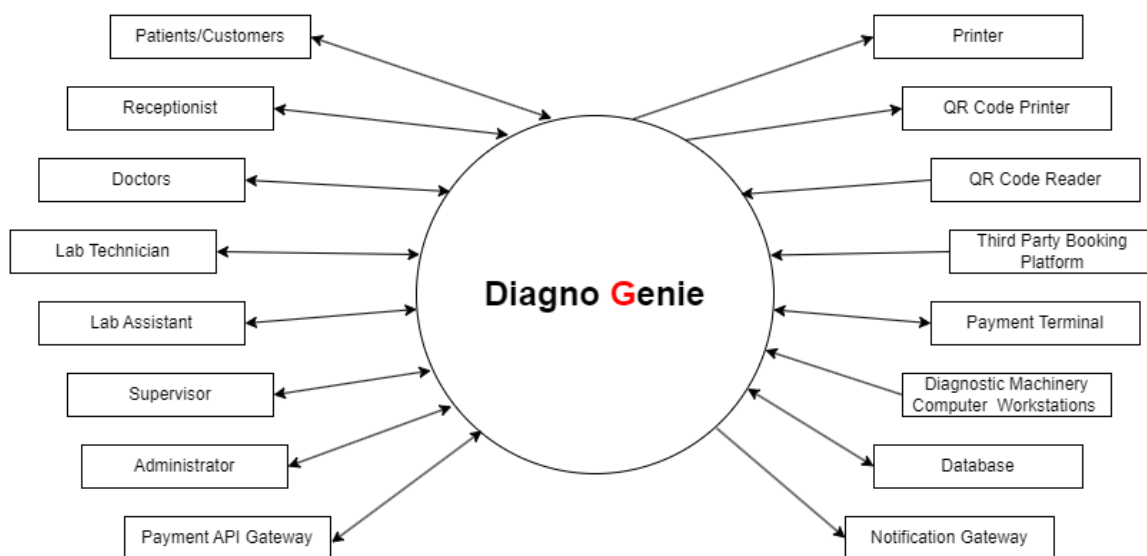
Date of submission

**6<sup>th</sup> March, 2023**

## 1. Objective:

The project's primary objective is to digitalize lab management tasks in accordance with the DISHA act, which will help to minimize manual labor and paper usage in a diagnostic center's workflow. The application will allow customers to handle everything electronically, track their appointments, and monitor the progress of their tests. It will also enable lab technicians, doctors, and warehouse administrators to manage their tasks more efficiently by digitizing their workflow. Currently, appointments are made manually, and lab reports are either printed or sent via email, with physical copies of imaging reports required for clarity. The project will eliminate these inefficiencies by digitizing and automating all lab management tasks, making it easier to manage inventory and track stocks. By doing so, the project will enhance the overall efficiency of the diagnostic centre, improve customer service, and reduce the use of paper and manual labor.

## 2. Context Diagram:

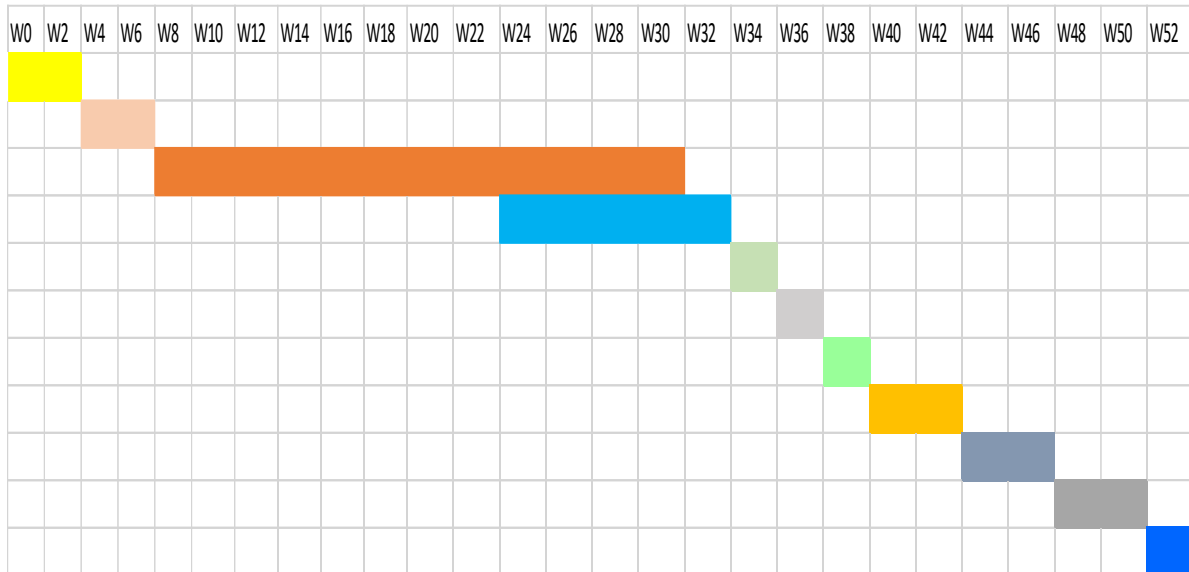


**Fig 2.1 Context Diagram of DiagnoGenie Project**

- Patients can schedule their tests at the laboratory either by walking in or contacting the receptionist via phone call.
- The receptionist will be scheduling the tests for the walk-ins and customers connected via phone call.
- The doctors have access to the patients' reports, which they can review.
- The lab technicians are responsible for analyzing the tests in their respective departments and uploading the results into the system.

- The lab assistants conduct the tests for walk-in patients or house calls and update the status of the sample collection.
- A supervisor manages the inventory, adding new stock, updating existing stock, and ordering necessary equipment for the laboratory.
- The administrator is responsible for setting up and maintaining the entire DiagnoGenie system, creating logins for users, assigning roles and permissions, and managing system operations.
- Payment API gateways are implemented to enable various payment methods such as credit card, debit card, or wallets.
- The printers are used to print invoices after scheduling tests and test reports if customers want hard copies for their reference.
- The QR code printer and QR code reader are used to print the QR codes containing patient details and to retrieve those details, respectively.
- Third-party booking platforms are available to allow for booking tests and confirmations through collaboration with our system.
- Payment terminals are used for making payments at the reception and scheduling appointments.
- The Diagnostic Machinery Computer Workstation is a computer workstation that communicates with laboratory machines such as MRI, CT scanner, and others to retrieve the results.
- The database is used to store patient and payment details, audio, video, and image data, and the schedule of appointments.
- Notification gateway sends alerts and notifications to end-users, doctors, and other parties involved with the status of the test, test reports, DICOM files, and other relevant information.

## Timeline of project - Biweekly



	Analysis	End of Week 2	Software requirement Engineer
	Design	End of Week 6	Architect
	Development	End of Week 30	Development Team
	Unit testing	End of Week 32	Development Team
	Build and release	End of Week 34	Operations Team
	Review	End of Week 36	Stakeholders
	Documentation	End of Week 38	Development Team
	System testing	End of Week 42	QA Team
	User Acceptance Testing	End of Week 46	Customer
	Pre-Production	End of Week 50	Operations Team
	Go Live	End of Week 52	Operations Team