**FAKULTAS MATEMATIKA DAN ILMU PENGETAHUAN ALAM**
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**DATABASE (MII212501)**


# PROJECT PROPOSAL (GROUP 11)

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## 1.0 PROBLEM DOMAIN

Nowadays, most of the clinics already apply digital systems to manage their data such as doctor information, patient information, appointment schedule and many more. But there are some clinics that still use manual systems with books or appointment cards. This occurs usually in the small or old clinic. All the process of managing the appointment, patient records and doctor schedule are still done manually. The staff will usually record the information and appointment in notebook, spreadsheet or using whatsApp to record and confirm the appointment. This method only can be done with few amount of patients, but once the patient increasing, it will be much difficult and confusing. Sometimes, the appointments can overlap, patient details are recorded incorrectly, or records get misplaced. These issues not only waste time but also affect the clinic's efficiency and professionalism.

Our approach is to develop a simple system that can help clinic staff to manage the appointment schedule, patient records, and doctor record more efficiently. The system will allow staff to register new patients, manage doctor information and schedule, and handle appointments according to available time slots. This system will also include a search feature to find appointments quickly based on patients name, doctor or date. This system will store data securely in the database and display it in an organized and simple way to understand. We hope with this system it can help clinic staff to handle all daily operation efficiently

### 1.1 Solution

A simple system named Clinic Appointment System is proposed as a best solution to the domain problem. This system aims to help clinic staff to manage all the records such as patients record, doctor information and appointment scheduling more efficiently. It will provide a function where staff can register new patients, record doctor information and schedule appointments without overlap. The system will include the basic CRUD function so that it will become more manageable and flexible. With this system, the process of managing clinic operations can be done faster, more accurately, and with reduced human error.

## 2.0 LIST OF SYSTEM USER

The system will mainly be used by clinic staff and doctors and a daily operation in the clinic. Each user has their own specific role and function within the system. The staff will act as the administrator that manages patient information, doctor detail and appointment schedule. They also will be responsible for adding new patients, managing doctors information and managing appointments. They will also update and delete records when necessary. Meanwhile, the doctors can use this system to check their upcoming appointment and view their patient they will attend to. This will help the doctors prepare in advance and avoid overlapping schedules.

| User Role | Description | Main Functions |
|---|---|---|
| Clinic Staff | The main user who manages all clinic operations. | Add, update, delete, and search patient, doctor, and appointment records. |
| Doctor | The doctor can view their scheduled appointments and patient details. | View daily appointment list and patient information. |

Table 1 : User Listing

For this project, the system will only focus on the Admin or Staff functions, because they are the primary users that are responsible for managing the clinic's daily operations. The staff will handle all tasks such as registering patients, adding doctor information, and scheduling appointments.

**3.0 OBJECTIVE**

The objectives of the Clinic Appointment System are as follows:

1. To develop a simple web-based system that helps clinic admin/staff manage patients, doctors, and appointments.
2. To design a relational database that stores all clinic data in an organized and normalized structure using 3NF.
3. To implement CRUD (Create, Read, Update, Delete) operations for patients, doctors, and appointments.
4. To provide a search function to help staff find and view appointments quickly.
5. To ensure that all data is stored accurately and can be accessed efficiently through a user-friendly interface.

## 4.0 ENTITY RELATIONSHIP DIAGRAM (ERD)