

## Project Proposal: Clinic Registration and Management System

## Project Overview

## 1. Introduction

The Clinic Registration and Management System is a console application built using C# and Entity Framework Core. This system aims to provide a user-friendly platform for patients to register, select a medical specialization, and book appointments. Additionally, an admin module is included to review and manage all appointments efficiently.

## 2. Project Scope

The system will allow users to choose from various medical specializations offered by the clinic.

Patients can book appointments within the clinic's operating hours (12 hours a day), with each appointment lasting 30 minutes.

All user data, including appointments, will be stored and managed using Entity Framework Core connected to a relational database.

## 3. Features

For Patients:

## a. Registration:

- Users can register by providing necessary personal information (name, contact details, etc.).

## b. Specialization Selection:

- Patients can choose from a list of medical specializations available in the clinic.

## c. Appointment Booking:

- Users can schedule appointments by selecting a preferred date and time within the clinic's operating hours.



For Admin:

a. Appointment Overview:

- Admins can view a comprehensive list of all appointments made by patients.

b. Appointment Management:

- Admins can approve, reschedule, or cancel appointments as needed.

4. Database Entity Structure

Patient Entity:

Attributes: PatientID (Primary Key), Name, ContactDetails, etc.

Specialization Entity:

Attributes: SpecializationID (Primary Key), SpecializationName, Description, etc.

Appointment Entity:

Attributes: AppointmentID (Primary Key), PatientID (Foreign Key), SpecializationID (Foreign Key), Date, Time, Status, etc.

5. Technical Stack

Language: C#

Database: Entity Framework Core (Code First Approach)

Frameworks: .NET Core

Design Pattern: Object-Oriented Programming (OOP)

User Interface: Console Application



6. Additional Features (Optional)

a. Email Notification:

- Send automated email notifications to patients regarding their upcoming appointments.

b. Data Validation:

- Implement robust data validation to ensure the integrity of user inputs.

