Doctor Appointment Booking system

**Project Proposal**



# Supervisor

Mr. Umar Daraz

# Submitted by

## Muhammad Bilal

{Bs-IT-M2-19-42 }

**Department of Computer Science,**

University of Sahiwal.

16/05/2023

## Project Title

Doctor Appointment Booking System

## Introduction

Healthcare service are vital to the well-being of individuals, and it is essential to ensure that healthcare services are accessible to all. In recent years, there has been a significant increase in the demand for healthcare services, leading to long waiting times, and making it difficult for patients to access healthcare services can improve the accessibility of healthcare services and reduce waiting times. The purpose of this project is to develop a doctor appointment booking system using Django.

## Objective

The objective of this project is to develop a doctor appointment booking system using Django that will enable patients to book appointment with doctors online. The system will also provide doctors with a platform to manage their appointments and patient records. The system will improve the accessibility of healthcare services and reduce waiting times.

## Problem Description

The current system for booking doctor appointments is outdated and inconvenient. Patient are required to physically visit the hospital to book appointments, leading to long waiting times and congestion in the hospitals. Doctors also find it challenging to manage their appointments manually. The development of an online appointment booking system will address these issues.

## Methodology

The project will use the following methodology:

* 1. Requirements Gathering: This will involve gathering requirements from patients, doctors, and system administrators.
  2. System design: This will involve designing the system architecture, database schema, and user interface.
  3. Development: This will involve developing the system using Django and other necessary technologies.
  4. Testing: This will involve testing the system to insure that it meets the requirements and is error free.
  5. Deployment: This will involve deploying the system to production server.

## Project Scope

The project scope will include the following:

* 1. A patient portal where patients can register, search and book appointments with doctors.
  2. A doctor portal where doctor can manage their profile, appointments and patient records.
  3. An admin portal where system administrators can manage the system.
  4. A database to store patient, doctor and admin information.
  5. A user interface that is easy to use and navigate.

## Feasibility Study

The project’s feasibility will be determined based on the following factors:

* 1. Technical Feasibility: The project will use Django, a widely used web development framework. Django is well-documented and has an active community, making it easy to find solutions to any technical issues that may arise.
  2. Economic Feasibility: The project will require some resources, including web hosting and development tools. However, the cost of these resources is within a reasonable range.
  3. Operational feasibility: The project’s success will depend on the willingness of the patients, doctors, and system administrators to use the system. Therefore, a survey will be conducted to determine the level of acceptance of the system.

## Solution Application Areas

The development of an online appointment booking system will address the challenges of the current system. Patients will be able to book appointments with

doctor’s online, reducing waiting times and congestion in the hospitals. Doctor will also be able to manage their appointments and patient records efficiently. The doctor

appointment booking system can be applied in various areas, including hospitals, clinics, and private medical practices.

## Tools/Technology

The project will use the following tools and technologies:

1. Django: This is a web development framework that will be used to develop the system.
2. MySQL: This will be used as the database management system.
3. HTML, CSS, Bootstrap, and JavaScript: These will be used to develop the user interface.
4. Python: These will be used in the backend of the system development.

## Expertise of the Team Members

Are all team members pre-equipped with the level of knowledge needed for the successful completion of this project? Have you people studied the relevant course by now? Is this project of equal interest to all team practices?

## Milestones

1. Requirements gathering -1 week

User requirements, Admin requirements, Doctor Requirements, Appointments requirements, Chat requirements, System requirements, Software requirements

1. System Design -2 weeks

To design Frontend interface using Html, Css, Bootstrap, JavaScript

1. Development – 3 weeks

To develop System Backend using python language in Django framework

1. Testing -1 week
2. Deployment -2 practices

## References

1. Bailey NTJ. A study of queues and appointment systems in hospital out- patient departments, with special reference to waiting times. J Royal Stat Soc 1952;14:185–99
2. Cayirli, T, E. Veral, and H. Rosen. (2006). Designing appointment scheduling systems for ambulatory care services. Health Care Management Science 9, 47–58.
3. Adebayo Peter Idowu., OlajideOlusegunAdeosun., and KehindeOladipo Williams.,“Dependable Online Appointment Booking System for Outpatient in Nigerian Teaching Hospitals" International Journal of Computer Science & Information Technology (IJCSIT) Vol.6(4),pp.109-116,2014.
4. Arthur Hylton III and Suresh Sankaran arayanan “Application of Intelligent Agents in Hospital Appointment Scheduling System”, International Journal of Computer Theory and Engineering, Vol. 4, August 2012, pp. 625-630.
5. Yeo Symey, Suresh Sankaran arayanan, Siti Nurafifah binti Sait “Application of Smart Technologies for Mobile Patient Appointment System”, International Journal of Advanced Trends in Computer Science and Engineering, august 2013
6. Jagannath Aghav, Smita Sonawane, and Himanshu Bhambhlani “Health Track: Health Monitoring and Prognosis System using Wearable Sensors”, IEEE International Conference on Advances in Engineering & Technology Research 2014, pp. 1-5.