Software Requirements Specification (SRS)
for
Hospital Appointment System

Version 1.0 approved

Prepared by: Tarık Buğra Çakır

Adana Alparslan Türkeş Bilim ve Teknoloji Üniversitesi

Date Created: November 2025

1. Introduction

1.1 Purpose

The purpose of this project is to design and implement a Hospital Appointment System that simplifies and automates the process of scheduling, managing, and tracking medical appointments between patients and healthcare providers. The system aims to improve efficiency, minimize scheduling errors, and enhance patient satisfaction by providing a digital platform for hospital management.

1.2 Document Conventions

This document follows the IEEE Software Requirements Specification (SRS) format. Headings and subheadings are numbered according to the IEEE standard.

1.3 Intended Audience and Reading Suggestions

This document is intended for developers, project managers, testers, and stakeholders. Developers should focus on Section 4 for implementation details, while testers should review Section 5.

1.4 Product Scope

The Hospital Appointment System provides a centralized digital platform that connects patients, doctors, secretaries, and administrators, improving hospital efficiency and user experience.

1.5 References

Not applicable

2. Overall Description

2.1 Product Perspective

The system is a new standalone web-based solution. It interacts with a database and includes multiple user roles such as patient, doctor, secretary, and admin.

2.2 Product Functions

- Patient registration, login, and profile management
- Appointment creation, viewing, and cancellation
- Doctor management
- Secretary operations (patient record creation, billing)
- Administrator management (users, system setup)
- Medical features (prescriptions, tests)
- Reporting and analytics

2.3 User Classes and Characteristics

Patients: Register and manage appointments.
Doctors: Manage appointments and patient information.
Secretaries: Register patients and process billing.
Administrators: Manage users and system configuration.

2.4 Operating Environment

The system operates on web browsers (Chrome, Firefox, Edge) and uses a MySQL database on the backend.

2.5 Design and Implementation Constraints

Must comply with hospital privacy standards. Uses HTML, CSS, JavaScript, PHP, and MySQL.

2.6 User Documentation

User manuals and online help will be provided.

2.7 Assumptions and Dependencies

Assumes internet connection and basic computer literacy among users.

3. External Interface Requirements

3.1 User Interfaces

The interface will include user dashboards for patients, doctors, secretaries, and admins. It will be intuitive and role-based.

3.2 Hardware Interfaces

Not applicable

3.3 Software Interfaces

Interfaces with a MySQL database and potentially other hospital systems.

3.4 Communications Interfaces

Uses HTTPS protocol for secure client-server communication.

4. System Features

4.1 Patient Module

Priority: High

This module allows patients to register, log in, and manage their appointments.

Functional Requirements:

- REQ-1: The system shall allow patients to create an account.
- REQ-2: The system shall allow patients to view and cancel appointments.

4.2 Doctor Module

Priority: High

Doctors can view appointments, write prescriptions, and request tests.

Functional Requirements:

- REQ-3: The system shall allow doctors to view scheduled patients.
- REQ-4: The system shall allow doctors to create and save prescriptions.

4.3 Secretary Module

Priority: Medium

Secretaries can register new patients and manage billing.

Functional Requirements:

- REQ-5: The system shall allow secretaries to register patients.
- REQ-6: The system shall allow secretaries to manage appointment schedules.

4.4 Administrator Module

Priority: High

Administrators manage user accounts, doctors, and system configurations.

Functional Requirements:

- REQ-7: The system shall allow admins to manage user roles.
- REQ-8: The system shall allow admins to generate hospital reports.

5. Other Nonfunctional Requirements

5.1 Performance Requirements

System should respond within 3 seconds under normal load.

5.2 Safety Requirements

The system must protect patient data and prevent data loss.

5.3 Security Requirements

All users must authenticate securely. Data must be encrypted via HTTPS.

5.4 Software Quality Attributes

The system should be reliable, maintainable, and user-friendly.

5.5 Business Rules

Only administrators can modify system configurations.

6. Other Requirements

Not applicable

Appendix A: Glossary

TBD (To Be Determined)

Appendix B: Analysis Models

Includes class and use case diagrams relevant to the project.

Appendix C: To Be Determined List

All remaining open requirements or decisions will be added here.