بسم الله الرحمن الرحيم

Code For Sudan Hackathon

Healthcare-Sudan Project

SRS - Ministry Employee Section

(Software Requirements Specification)

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Introduction

Healthcare Sudan is a project for Code For Sudan Hackathon. It focuses on two main problems those are really face Sudanese population in the medical field.

1- Delay in detecting and dealing with epidemics, which leads to its spread to a large extent, but to a large loss of life in many cases.

2- The difficulties that the Sudanese citizen faces to obtain medical care, such as going early to the hospital and waiting for the turn for long hours, and not knowing the services available in a hospital, except by going to it, such as the available departments and doctors, the availability of oxygen and the available beds... est.

This document explains what is the hospital manager section of the final system should be do.

Scope

The system consists of 3 apps

1- Mobile app: for the user, citizen, registrar, and doctor.

2- Hospital Desktop App: for the hospital manager, and the health officer.

3- Ministry Desktop App: for the ministry employee.

This document will explain the first two sections of the ministry desktop app.

Definitions

User: The person who uses the app **without** login.

Citizen: The person who uses the app after login.

Registrar: The user who works in a specific hospital and manage the patients' queue of specific departments.

Doctor: The doctor in a specific department in a hospital and diagnose them.

Health Officer: The user who store the patients' data of a specific hospital physically.

Manager: The person who works as a general manager, medical manager, or statistics department manager in a hospital.

Ministry Employee: The user who administrate a Health Ministry Office whether the general office of Sudan, or a general administrator of a specific state or locality.

Functional Requirements

- FR1: The system shall allow a ministry employee to fill a signup form contains: name, phone number, state/All, locality/All, password, confirm password.
- FR2: The system shall allow a ministry employee to login using phone number and password.
- FR3: The system shall allow a ministry employee access his profile (name, phone number, states, localities).
- FR4: The system shall allow a ministry employee to update his password.

- FR5: The system shall allow a ministry employee to add a hospital manager by providing the name, phone number, password, and associated hospital.
- FR6: The system shall allow a ministry employee to add a hospital providing the name, state, locality, address, emergency number, departments, doctors, then add a manager.
- FR7: The system shall allow a ministry employee to add, edit, remove department from a hospital.
- FR8: The system shall allow a ministry employee to access staff details of a hospital **Read Only**.

- FR9: The system shall display reports and dashboards to the ministry employee, summarizing medical, staff, and epidemic data and filter them using (state, locality, hospital, and date).

- FR10: The system shall allow the ministry employee to export any report or dashboard as PDF.

- FR11: The system shall allow the ministry employee to receive notifications about any epidemic cases.

- FR12: The system shall allow the ministry employee to send notifications a hospital manager, hospital employees, citizens in a specific region on the app for the normal notifications, and SMS for the critical notifications.
- FR13: The system shall allow the ministry employee to send medical advices to the citizens.

- FR14: The system shall allow all of the previous services for the ministry employee **in his region only**.

Non-Functional Requirements

Language & Localization

- NFR1: The app should be in Arabic language.

Performance Requirements

- NFR2: The system shall support up to 500 concurrent users without performance degradation.
- NFR3: The system shall load the dashboard and reports within 5 seconds for 95% of user requests.
- NFR4: The system shall process user registration and login within 3 seconds under normal load.

Security Requirements

- NFR6: The password shall be stored encoded and salted hashes.
- NFR7: The system shall enforce strong password policies (minimum 8 characters, including uppercase, lowercase, numbers, and symbols).
- NFR6: The system shall automatically log out users after 1 hour of inactivity.
- NFR8: The system shall use HTTPS for all communication between client and server.
- NFR9: Only authorized ministry employees shall access hospital and staff management features.

Reliability & Availability

- NFR10: The system shall be available all of the time, excluding weekend and any holiday.
- NFR11: The system should be worked dynamically on any pc screen size.

Usability Requirements

- NFR12: The system shall provide a user-friendly interface compatible with desktop devices, where any action page shall be displayed within no more 5 clicks.

Use Cases Diagram

Login
- Fill Sign Up Form
- Login usning phone number and password
- View Profile → Update Password

Hospital Management
- View Hospital Staff
- View Hospital Details → Manage Departments
- Add Hospital → Add Hospital Manager

Reports and Dashboards
- View Reports & Dashboards → Filter Them

Notifications Management
- Receive Epidemic Notifications
- Send Medical Advice to Citizens
- Send Notifications

Ministry Employee

Ministry Office

Citizen

Hospital Manager

Hospital Employee