**DOCTOR MANAGEMENT SYSTEM**

1. **WORK DISTRIBUTION**

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| NAMES | ENROLLMENT NUMBERS | TASKS |
| Muhammad Isam | 02-134221-045 | Backend, Database |
| Dua Khan | 02-134221-059 | Database |
| Laiba Rehman | 02-134221-091 | Database |
| Laiba Tariq | 02-134221-069 | UI/UX |
| Emad Tariq | 02-134221-068 | Backend, Testing |
| Sofia Haider | 02-134221-090 | UI/UX |

#### **Work Assigned**

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| Team | Role |
| Muhammad Isam | Determine the components |
| Dua Khan | Use Case Diagram, ERD |
| Laiba Rehman | Produce Business logic For Database |
| Laiba Tariq | Designing Wireframes |
| Emad Tariq | Initial Requirement Gathering |
| Sofia Haider | Existing App Study |

.3. **Introduction:**

The Doctor Management Module is an integral component of the hospital management system aimed at facilitating efficient management of doctors' information, appointments, and patient interactions. This document outlines the detailed requirements for the development of this module.

4**. Scope:**

The Doctor Management Module will include the following key features:

- Doctor Login Panel: Secure access for doctors to the system.

- Doctor Dashboard: Centralized interface displaying relevant information and actions for doctors.

- Doctor Profile: Comprehensive profiles containing essential details about each doctor.

- Doctor Appointments: Management of scheduled appointments for each doctor.

- Patient Details in Appointments: Display of patient details and medical history within appointments.

1. **FUNCTIONAL REQUIREMENTS**

***FR01: Doctor Login Panel***

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| **Req. No.** | **Functional Requirements** |
| FR01.1 | Provide a secure login interface for doctors, accessible from the system's main page. |
| FR01.2 | Doctors must enter their unique username and password for authentication purposes.. |
| FR01.3 | Implement password encryption techniques to ensure secure transmission and storage of login credentials. |
| FR02.4 | Include a 'Forgot Password' feature with a secure password reset mechanism, such as email verification or security questions. |

***FR02: Doctor Dashboard***

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| **Req. No.** | **Functional Requirements** |
| FR02.1 | Design the dashboard to be visually intuitive and easy to navigate. |
| FR02.2 | Display upcoming appointments prominently on the dashboard, including patient names and appointment times. |
| FR02.3 | Provide a section for recent patient interactions, showcasing relevant details like patient names and appointment summaries. |
| FR02.4 | Implement a notification system to alert doctors about urgent matters, such as emergency appointments or critical patient updates. |
| FR02.5 | Allow doctors to customize their dashboard layout and preferences according to their workflow needs. |

***FR03: Doctor Profile***

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| **Req. No.** | **Functional Requirements** |
| FR03.1 | Enable doctors to update their profile information, including contact details, qualifications, and schedule, through an editable profile page. |
| FR03.2 | Include a section for professional achievements and certifications within the doctor's profile. |
| FR03.3 | Implement validation checks to ensure the accuracy and completeness of entered profile information. |
| FR03.4 | Allow doctors to upload and manage their profile picture, adhering to specified image dimensions and file formats. |

***FR04: Doctor Appointments***

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| **Req. No.** | **Functional Requirements** |
| FR04.1 | Provide doctors with a calendar view to visualize their schedule and appointments for better planning. |
| FR04.2 | Allow doctors to search and filter appointments based on criteria such as date, patient name, or appointment status. |
| FR04.3 | Enable doctors to set their availability preferences, including working hours and days off, to manage appointment scheduling effectively. |
| FR04.4 | Implement a color-coded system to differentiate between appointment statuses (e.g., confirmed, pending, canceled) for easy identification. |
| FR05.5 | Allow doctors to add notes or comments to individual appointments for reference or collaboration with other healthcare providers. |

***FR05: Patient Details in Appointments***

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| **Req. No.** | **Functional Requirements** |
| FR05.1 | Ensure seamless integration with the patient database to retrieve comprehensive patient details during appointments. |
| FR05.2 | Display patient demographics, including age, gender, and contact information, alongside appointment details. |
| FR05,3 | Provide quick access to relevant medical history, diagnoses, prescribed medications, and allergies to facilitate informed decision-making during consultations. |
| FRO5.4 | Implement role-based access controls to restrict access to sensitive patient information based on the doctor's authorization level. |
| FROE5..5 | Enable doctors to document consultation notes and treatment plans directly within the appointment interface for accurate record-keeping and continuity of care. |

1. **NON-FUNCTIONAL REQUIREMENTS**

***NFR01 Security***

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| **Req. No.** | **Functional Requirements** |
| NFR01.1 | The system shall implement robust security measures to safeguard doctor and patient data. |
| NFR01.2 | Access to sensitive information shall be restricted based on user roles and permissions. |
| NFR01.3 | Ensure compliance with data privacy regulations. |

***NFR02: Performance***

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| **Req. No.** | **Non Functional Requirements** |
| NFR02.1 | Fast response times for accessing and updating data. |
| NFR02.2 | Response times for retrieving patient data and updating appointments shall be optimized to ensure a seamless user experience. |
| NFR02.3 | Optimize UI components for smooth user interactions. |

***NFR03: Scalability***

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| **Req. No.** | **Non Functional Requirements** |
| NFR03.1 | Design the system to accommodate growth in data and user base. |
| NFR03.2 | It shall be capable of scaling up to support an increasing number of doctors, patients, and appointments without significant performance degradation. |

***NFR04: Reliability***

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| **Req. No.** | **Non Functional Requirements** |
| NFR04.1 | Minimize system downtime and ensure high availability. |
| NFR04.2 | Implement backup and disaster recovery mechanisms to prevent data loss. |

***NFR07: User Interface***

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| **Req. No.** | **Non Functional Requirements** |
| NFR07.1 | The user interface shall be intuitive and user-friendly, facilitating easy navigation for doctors of varying technical proficiency. |
| NFR07.2 | Modularize the system to allow for further updates and enhancements. |
| NFR08.3 | It shall adhere to modern design principles and accessibility standards to cater to diverse user demographics. |
| NFR08.04 | The user interface shall be developed using HTML, CSS, and JavaScript to ensure compatibility across modern web browsers and devices. |
| NFR08.05 | HTML shall be used for structuring the content of web pages, ensuring semantic markup and accessibility. |