MEDMATE

### **SMART PRESCRIPTION AND MEDICINE TRACKER**

WBS (WORK BREAK DOWN STRUCTURE)

TEAM MEMBERS

# Muhammad Hasan Khan (B23110006099)

# Muhammad Hamza Abbas (B23110006096)

# Husain Ahmad Khan (B23110006045)

# Muhammad Mujtaba (B23110006107)

# Rayyan Ibrahim (B23110006137)

| **WBS Code** | **Task Name** | **Description** | **Responsible Person** | **Start Date** | **End Date** | **Duration (Days)** | **Predecessors** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1.0 | Project Management | Planning and controlling all project activities, monitoring progress | Muhammad Hasan Khan | 2025-09-01 | 2025-10-20 | 50 | - |
| 1.1 | Project Planning | Develop detailed project plan, schedule, and resource allocation | Muhammad Hasan Khan | 2025-09-01 | 2025-09-05 | 5 | 1.0 |
| 1.2 | Risk Management | Identify risks, mitigation planning, and monitoring | Muhammad Hasan Khan | 2025-09-06 | 2025-09-10 | 5 | 1.1 |
| 1.3 | Communication Management | Coordinate team communication, meetings, and reports | Muhammad Hasan Khan | 2025-09-06 | 2025-10-20 | 45 | 1.1 |
| 2.0 | Requirements & System Design | Gather requirements and design system architecture | Muhammad Mujtaba | 2025-09-01 | 2025-09-30 | 30 | 1.3 |
| 2.1 | Requirements Analysis | Collect and analyze user and system requirements | Muhammad Mujtaba | 2025-09-01 | 2025-09-15 | 15 | 1.3 |
| 2.2 | System Design | Create design documents, architecture, data models | Muhammad Mujtaba | 2025-09-16 | 2025-09-30 | 15 | 2.1 |
| 3.0 | Backend Development | Develop server, database, APIs, and authentication | Muhammad Mujtaba | 2025-10-01 | 2025-10-15 | 15 | 2.2 |
| 3.1 | Database Setup | Design and implement MongoDB database | Muhammad Mujtaba | 2025-10-01 | 2025-10-05 | 5 | 2.2 |
| 3.2 | API Development | Create RESTful APIs with Node.js and Express.js | Muhammad Mujtaba | 2025-10-06 | 2025-10-12 | 7 | 3.1 |
| 3.3 | Authentication Implementation | Implement JWT login and security features | Muhammad Mujtaba | 2025-10-13 | 2025-10-15 | 3 | 3.2 |
| 4.0 | Frontend Development | Build user interface with React, state management, styling | Rayyan Ibrahim | 2025-09-16 | 2025-10-15 | 30 | 2.2 |
| 4.1 | UI/UX Design | Design accessible, user-friendly interface | Rayyan Ibrahim | 2025-09-16 | 2025-09-30 | 15 | 2.2 |
| 4.2 | Frontend Coding | Implement components and features with React, Redux/Zustand | Rayyan Ibrahim | 2025-10-01 | 2025-10-10 | 10 | 4.1 |
| 4.3 | Integration with Backend | Connect frontend with backend APIs | Muhammad Mujtaba | 2025-10-11 | 2025-10-15 | 5 | 4.2, 3.3 |
| 5.0 | Testing & Quality Assurance | Perform testing, bug fixes, and quality assurance | Husain Ahmad Khan | 2025-10-16 | 2025-10-19 | 4 | 4.3 |
| 5.1 | Unit Testing | Test individual components and modules | Husain Ahmad Khan | 2025-10-16 | 2025-10-17 | 2 | 4.2, 3.2 |
| 5.2 | System Testing | Test full integrated system | Husain Ahmad Khan | 2025-10-18 | 2025-10-18 | 1 | 5.1 |
| 5.3 | User Acceptance Testing & Feedback | Collect feedback from beta users and improve | Husain Ahmad Khan | 2025-10-19 | 2025-10-19 | 1 | 5.2 |
| 6.0 | Deployment & Maintenance | Deploy web app and maintain system | Muhammad Hamza Abbas | 2025-10-20 | 2025-10-20 | 1 | 5.3 |
| 6.1 | Hosting Setup | Deploy frontend and backend on Vercel and Render/Heroku | Muhammad Hamza Abbas | 2025-10-20 | 2025-10-20 | 1 | 6.0 |
| 6.2 | Cloud Storage Configuration | Set up Cloudinary/Firebase for prescriptions | Muhammad Hamza Abbas | 2025-10-20 | 2025-10-20 | 1 | 6.1 |
| 6.3 | Security & Privacy | Ensure encryption, data privacy compliance | Muhammad Hamza Abbas | 2025-10-20 | 2025-10-20 | 1 | 6.2 |
| 7.0 | Documentation & Training | Prepare documents and train users/testers | Muhammad Hasan Khan | 2025-10-15 | 2025-10-20 | 6 | 5.3, 6.3 |
| 7.1 | Technical Documentation | Write system, API, and user manuals | Muhammad Hasan Khan | 2025-10-15 | 2025-10-18 | 4 | 7.0 |
| 7.2 | User Training | Conduct training sessions for beta testers/users | Muhammad Hasan Khan | 2025-10-19 | 2025-10-20 | 2 | 7.1 |