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| **Project Name: PEMDAS-your Smart Health Companion**  **Project Sponsor:** Dr. Ayman El-Sayed  **Project Manager:** Eng. Mohamed Alaa Khalaf Ahmed  **Date:** October 3, 2025 |
| **Project Purpose and Justification:**  In today's fast-paced world, many people struggle to maintain a healthy lifestyle due to lack of time, poor organization of medical data, and difficulty tracking daily habits such as medication, diet, and exercise. This often results in missed appointments, unhealthy eating patterns, and inconsistent health monitoring.  The ***PEMDAS*** smart health companion solves these problems by providing a single digital platform where users can store their medical records, receive smart medication reminders, track physical activities, plan balanced meals, and get personalized health and nutrition guidance through **AI**. This ensures users stay organized, consistent, and motivated to improve their overall well-being. |
| **Project Description:** PEMDAS is an intelligent medical app designed to help users manage their daily health efficiently. It stores medical records, tracks medications and appointments, and provides AI-powered health advice. The app aims to make healthcare more accessible, personalized, and technology-driven.  Pemdas provides customized health and nutrition insights, promoting daily motivation and a healthier lifestyle through continuous digital support. |
| **Project Objectives:**   * Develop an intelligent medical assistant to help users efficiently manage their health . * Provide smart reminders for medications and appointments to ensure consistent care . * Use AI to deliver personalized health and nutrition advice tailored to each user. * Promote health awareness and self-care through continuous guidance and interaction. |
| **Deliverables:**   * Fully functional mobile application . * User manual and training sessions . * **AI-powered health monitoring module** . * **Smart reminder system for medications and appointments**. * **Physical activity tracking feature to monitor daily steps**. * **Diet and nutrition planning module that helps users healthy meal plans** . * **Daily health planner and calendar to organize workouts and health related tasks for each day**. * **Integration with wearable devices as smart watches and fitness bands**. |
| **Milestones & Timeline:**   * Requirements gathering: Oct 2025 * Design prototype: Nov 2025 * Development: Dec 2025 – Mar 2026 * Testing: Apr 2026 * Deployment & training: May 2026 |
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| **Technical Requirements:**  **. Platform:** Mobile and web-based application compatible with Android, iOS, and modern web \_browsers (Chrome, Safari, Edge, Firefox). • **Operating System:** Android 10+, iOS 13+, Windows 10/11 for web access. • **Hardware:** Compatible with modern smartphones (Octa-core 2.0 GHz, 4GB+ RAM, 64GB+ storage). • **Database:** Use a secure and scalable relational database (MySQL / PostgreSQL) to store medical \_records, user data, and logs. • **Performance:** Support concurrent access by at least 1000 users with smooth response times under \_ normal load. • **Security:** Encrypted data (TLS/SSL), role-based access control, and compliance with medical data \_privacy standards (like HIPAA or GDPR). • **Integration:** APIs to connect with wearable devices or external health monitoring systems. • **User Interface:** Responsive, user-friendly design accessible via smartphones and tablets. • **Automation:** Smart reminders for medications, appointments, and AI-driven health insights. • **Backup and Recovery:** Regular backups of user health data with quick restoration options. • **Logging and Auditing:** Maintain logs of user activities and system updates for transparency and \_reliability. |
| **Limits and Exclusions:**  • This project focuses on developing the PEMDAS mobile and web application; integration with hospital or insurance systems is excluded. • The system will not include real-time patient location tracking or emergency response features. • Hardware procurement (such as mobile devices or servers) is excluded and will be handled separately by the client. • Advanced AI diagnosis or medical treatment prediction is beyond the project scope; the app provides only general guidance. • User support is limited to initial setup, user manual, and basic troubleshooting. • Any future upgrades, advanced analytics, or new features will require separate approval and additional funding. • The project will operate within the approved budget and schedule, with no extra resources allocated without official modification**.** |
| **Approval:**   * Project Sponsor: \_Dr/\_Ayman\_El-sayed\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_ * Project Manager: \_\_Eng/\_Mohamed\_Alaa \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_ |
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