**“SMART HEALTH” – A DIGITAL COMPANION FOR MEDICAL HISTORY TRACKING AND WELLNESS MANAGEMENT**

# **PROBLEM STATEMENT:**

In today's fast-paced world, managing medical records, medication schedules, and treatment routines remains a fragmented and manual task for many patients. Paper records are easily lost, and patients often forget to take medicines or follow doctor-advised routines. There is a need for a centralized, user-friendly digital platform that allows individuals to track their medical history, monitor their current medications, maintain treatment routines, and visualize their health data—all in one place.

# **INTRODUCTION:**

Smart Health is a web-based medical management application developed using Python, SQL, HTML, CSS, and JavaScript. The app enables users to securely create an account, input personal medical history, track current medications, upload related documents, and view insightful data visualizations. The platform also features a habit and routine tracker along with a calendar-based medical planner, ensuring users stay on top of their treatment regimens. The application's interface uses a calming aesthetic with sage green, beige, and soft blue tones, promoting a clean and welcoming user experience.

# **OBJECTIVE:**

- To build a secure and easy-to-use platform for individuals to store and manage their medical data.  
- To track ongoing medications and provide history for reference or healthcare consultations.  
- To help users follow treatment plans through habit tracking and calendar reminders.  
- To allow uploading of medical documents such as prescriptions, reports, and images.  
- To offer data visualizations like graphs and pie charts that reflect the user's health trends over time.

# **SOFTWARE/HARDWARE REQUIREMENTS:**

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| Category | Tools/Specs |
| Backend | Python (Flask/Django) |
| Database | SQL (MySQL/PostgreSQL/SQLite) |
| Frontend | HTML, CSS, JavaScript |
| Data Visualization | Chart.js / Google Charts |
| Authentication | Custom Python logic / Flask Auth |
| Hosting (optional) | Localhost / PythonAnywhere / Heroku |
| Hardware | Any system with modern browser and Python support |

# **WORKING / EXECUTION PLAN – TEAM STRUCTURE:**

- Member 1: Backend developer – Handles database schema, user authentication, and data APIs.  
- Member 2: Frontend designer – Designs the user interface using HTML, CSS, and JS.  
- Member 3: Data visualization and calendar logic – Implements graphs, charts, and reminders.

# **APPLICATION FLOW:**

1. User Authentication: Unique ID and password required to register/login.  
2. Medical History Input: Users enter past illnesses, diagnoses, and general health info.  
3. Medication Tracker: Enter current medications with dose and time; view past medicines.  
4. Habit & Routine Tracker: Add tasks (e.g., "Take insulin"), track completion daily.  
5. Data Visualization: Graphs show medicine adherence, conditions, or vitals over time.  
6. Document Upload: Upload images or PDFs of prescriptions, reports, or test results.  
7. Calendar Planner: Schedule doctor appointments, medicine schedules, and reminders.

# **APPLICATION / FUTURE SCOPE:**

- Can be used by students, professionals, elderly users, or caregivers for medical management.  
- Useful for chronic condition tracking (e.g., diabetes, hypertension).  
- Future updates can include mobile app integration, doctor-sharing access, and AI-based health recommendations.

# **CONCLUSION:**

Smart Health is a step toward personal digital healthcare empowerment. By bringing together key features like medical history, medication logs, habit tracking, and calendar planning into one cohesive platform, the application enables users to take control of their health journey. With a user-friendly interface and comprehensive data tools, Smart Health transforms fragmented health records into an organized, actionable system—available anytime, anywhere.