Project Design Phase

Proposed Solution for "Book A Doc"

Field	Details
Date	10 April 2025
Team ID	SWTID1743701170
Project Name	Book A Doc

Proposed Solution

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	- Patients face difficulties finding available doctors, managing appointments, and paying fees online. - Doctors struggle with manual appointment tracking and earnings calculation. - Admins encounter challenges managing doctor schedules and approvals manually.
2.	Idea / Solution description	A full-stack MERN (MongoDB, Express.js, React, Node.js) appointment booking system with: - Three authentication levels: Patients (book/manage appointments), Doctors (check earnings/update profiles), Admins (manage appointments/doctors). - Online payment integration via Stripe for seamless fee collection.
3.	Novelty / Uniqueness	- Multi-level authentication tailored to specific user roles (Patient, Doctor, Admin). - Customizable platform for individual doctors or hospitals. - Scalable MERN architecture with real-time dashboard updates.
4.	Social Impact / Customer Satisfaction	- Improves healthcare access by simplifying appointment booking for patients. - Reduces administrative workload for doctors and admins, enhancing efficiency. - High customer satisfaction through user-friendly interface and secure payments (target 90% satisfaction based on feedback).
5.	Business Model (Revenue Model)	Revenue generated through a transaction fee (e.g., 5% per appointment payment) processed via Stripe integration, shared between the platform and doctors/hospitals.
6.	Scalability of the Solution	- Supports growth with AWS EC2 and MongoDB sharding for handling increased users. - Load balancing with AWS Elastic Load Balancer for concurrent access. - Modular design allows adding features (e.g., mobile app, AI scheduling) in future sprints.