**Project Design Phase**

**Proposed Solution**

|  |  |
| --- | --- |
| Date | 27-06-2025 |
| Team ID | LTVIP2025TMID46688 |
| Project Name | DocSpot |
| Maximum Marks | 4 Marks |

**Proposed Solution**

**Overview**

The proposed solution aims to overcome the major challenges patients face while booking medical appointments, such as long queues, lack of verified doctor information, and poor communication. DocSpot is designed as a digital platform that streamlines the entire healthcare booking process, making it easier for users to connect with doctors, manage their health schedules, and reduce dependency on offline systems.

**Detailed Solution**

DocSpot is a full-stack web-based healthcare appointment booking system that allows:

* **Users (Patients)** to:
  + Register and log in securely
  + View doctor profiles and specializations
  + Book appointments instantly
  + Track their appointment history and upcoming bookings
* **Doctors** to:
  + Apply for verification through a form submission
  + Access their doctor dashboard upon admin approval
  + Manage appointments and notifications
* **Admins** to:
  + Review and approve/reject doctor applications
  + View registered users and doctors
  + Monitor all booking activity within the platform

**Core Technologies Used**

* **Frontend:** React.js with Bootstrap for responsive design
* **Backend:** Node.js and Express.js for server and API logic
* **Database:** MongoDB for storing user, doctor, and appointment data
* **Authentication:** JWT (JSON Web Token) for secure login and role-based access

**Key Benefits of the Solution**

* Digitizes the entire appointment booking process
* Builds trust with verified doctors and real-time availability
* Enhances patient convenience with reminders and booking history
* Reduces manual workload for clinics and admin staff
* Provides role-specific dashboards for better control and experience