Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	3 December 2025
Team ID	
Project Name	Medifolio - Doctor Booking Appointment system
Maximum Marks	4 Marks

Technical Architecture:

The Medifolio platform is designed using a scalable 3-tier architecture consisting of the presentation layer (frontend), business logic layer (backend), and database layer.

This architecture ensures smooth doctor discovery, secure appointment handling, role-based access, and efficient data management.

Table-1 : Components & Technologies:

Component	Description	Technology
User Interface	Responsive web interface for users, doctors, and admin	HTML, CSS, JavaScript, React.js
Application Logic – User	User registration, login, doctor search, appointment booking	Node.js, Express.js
Application Logic – Admin	Doctor application review, approvals, user/doctor management	React js, Node js
Application Logic – Doctor	Schedule updates, appointment approval/rejection	Node.js, Express.js
Database	Stores users, doctors, appointments, and application records	MongoDB

Table-2: Application Characteristics:

Characteristics	Description	Technology
Open-Source Frameworks	Uses modern, open-source frontend & backend tools	React.js, Node.js, CSS
Scalable Architecture	Clean 3-tier architecture with RESTful API communication	MVC
High Performance	Fast UI rendering and optimized API responses	React.js + Express.js
Secure Authentication	Role-based login for User, Doctor, and Admin	JWT, Bcrypt (Optional)
Flexible Data Handling	NoSQL database ensures scalability and fast queries	MongoDB

References:

React.js Documentation

Node js Best Practice

JSON Web Server Referance

https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d