Project Design Phase-Technology Stack (Architecture & Stack)

Date	29th March 2025
Team ID	SWUID20250152937
Project Name	DocSync
Maximum Marks	4 Marks

Technology Stack

1. Frontend (Client Side)

Technology	Purpose
React.js	Building dynamic user interfaces (SPA)
Tailwind CSS	For fast, responsive, and utility-first styling
Axios	To handle API requests to the backend
React Router DOM	For client-side routing/navigation

2. Backend (Server Side)

Technology	Purpose
Node.js	JavaScript runtime for server-side scripting
Express.js	Web framework to build RESTful APIs
JWT (JSON Web Token)	Secure authentication and role-based access (doctor/patient/admin)
Bcrypt.js	Password hashing for secure login/registration

3. **Database**

Technology	Purpose
MongoDB Atlas	Cloud-based NoSQL database to store user data, appointments, profiles
Mongoose	ODM for MongoDB – simplifies schema design and database queries

4.**Deployment & DevOps**

Platform/Tool	Purpose
Vercel	Frontend hosting and deployment
Render / Railway	Backend hosting and deployment
Git & GitHub	Version control and collaboration