

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

Date	31 January 2025
Team ID	SWTID1744100849
Project Name	HealthPlum
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)

<b>Bcrypt.js</b>	<b>Password hashing for secure login/registration</b>
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### **3. Database**

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

### **4. Deployment & DevOps**

<b>Platform/Tool</b>	<b>Purpose</b>
<b>Vercel</b>	<b>Frontend hosting and deployment</b>
<b>Render / Railway</b>	<b>Backend hosting and deployment</b>
<b>Git &amp; GitHub</b>	<b>Version control and collaboration</b>