Technology Stack

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

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| Date | 21 March 2025 |
| Team ID | SWTID1744456946 |
| Project Name | MediBoard |
| Maximum Marks | 4 Marks |

1. **Frontend (Client Side)**

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| **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** |

1. **Backend (Server Side)**

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| **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)** |

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| **Bcrypt.js** | **Password hashing for secure login/registration** |

1. **Database**

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

1. **Deployment & DevOps**

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