**Project Design Phase-II**

**Technology Stack (Architecture & Stack)**

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| Date | 02 October 2025 |
| Team ID | **SWUID20250216599** |
| Project Name | Smart Meet |
| Maximum Marks | 4 Marks |

**Technical Architecture:**

The Smart Meet platform is designed with a real-time, microservices architecture to ensure low latency, high availability, and scalability. The architecture separates the user interface (client), signalling and application logic (backend services), and the data layer. This design facilitates robust, secure, and high-performance video and audio streaming using WebRTC for real-time communication and RESTful APIs for standard application functions.

**Table-1 : Components & Technologies:**

| **S.NO** | **Component** | **Description** | **Technology** |
| --- | --- | --- | --- |
|  | User Interface (Client) | Web-based interface for video calls, screen sharing, chat, and scheduling. | HTML, CSS, JavaScript, React Js, etc. |
|  | Application Logic-1  (Signalling Server) | Manages user authentication, session control, and WebRTC connection negotiation. | Node.js, Express.js, Socket.IO |
|  | Application Logic-2  (Media & Core Services) | Handles media stream processing for group calls, meeting recordings, and notifications. | React Js, Node Js |
|  | Database | Stores user profiles, meeting data, chat logs, and recording metadata | MongoDB |

**Table-2: Application Characteristics:**

| **S.No** | **Characteristics** | **Description** | **Technology** |
| --- | --- | --- | --- |
|  | Ral-Time Communication | Enables low-latency peer-to-peer and server-relayed video/audio communication. | React.js, Node.js, WebRTC,  WebSocket |
|  | Scalable Architecture | Microservices architecture allowing independent scaling of signalling, media, and application services. | Docker |

**References:**

[**React.js Documentation**](https://react.dev/)

[**Node js Best Practice**](https://nodejs.org/en/learn/getting-started/introduction-to-nodejs)

[**JSON Web Server Referance**](https://www.npmjs.com/package/json-server)

[**https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d**](https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d)