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

Date	31 March 2025
Team ID	SWTID1743612504
Project Name	Streamify : Your Ultimate OTT Platform
Maximum Marks	4 Marks

Technical Architecture:

We'll use a cloud-deployed 3-tier architecture (Client → Server → Database/Storage) with the following features:

Client: ReactJS web interface
Server: Node.js backend using Express with REST APIs
Database: MongoDB Atlas
External APIs: TMDB for movie data
Authentication: Google OAuth, LinkedIn, and email
File Streaming: Handled via cloud-based services (e.g., AWS S3 or equivalent)

Table-1: Components & Technologies

S.No	Component	Description	Technology
1	User Interface	Web-based user interface	ReactJS, HTML, CSS, JavaScript
2	Application Logic-1	User authentication & profile management	Node.js, Express.js
3	Application Logic-2	Content browsing, streaming logic	Node.js
4	Application Logic-3	Admin panel logic	Node.js, Express.js
5	Database	Stores users, subscriptions, metadata	MongoDB Atlas (NoSQL)
6	Cloud Database	Cloud-hosted DB	MongoDB Atlas
7	File Storage	Video content storage	AWS S3 / Firebase Storage
8	External API-1	Movie data	TMDB API
9	External API-2	Authentication	Google OAuth, LinkedIn OAuth
10	Machine Learning Model	Optional, future feature: recommendation	N/A (planned)
11	Infrastructure	Hosting and	Vercel (Frontend),

		deployment	Render/Heroku/AWS (Backend), Cloudflare CDN

Table-2: Application Characteristics

S.No	Characteristics	Description
1	Open-Source Frameworks	MERN stack, Redux, Bootstrap/Tailwind
2	Security Implementations	JWT, OAuth2, HTTPS, Role-based Access, Helmet.js, CORS
3	Scalable Architecture	Microservices-ready, 3-tier separation, containerized services
4	Availability	Hosted on scalable cloud platforms with load balancing
5	Performance	Caching, CDN, efficient DB queries, code splitting, lazy loading