Requirement Gathering and Analysis Phase
Technology Stack (Architecture & Stack)

Date	04 July 2024
Team ID	SWTID1720101616
Project Name	Project - Video Sharing App using MERN
Maximum Marks	

Technical Architecture:

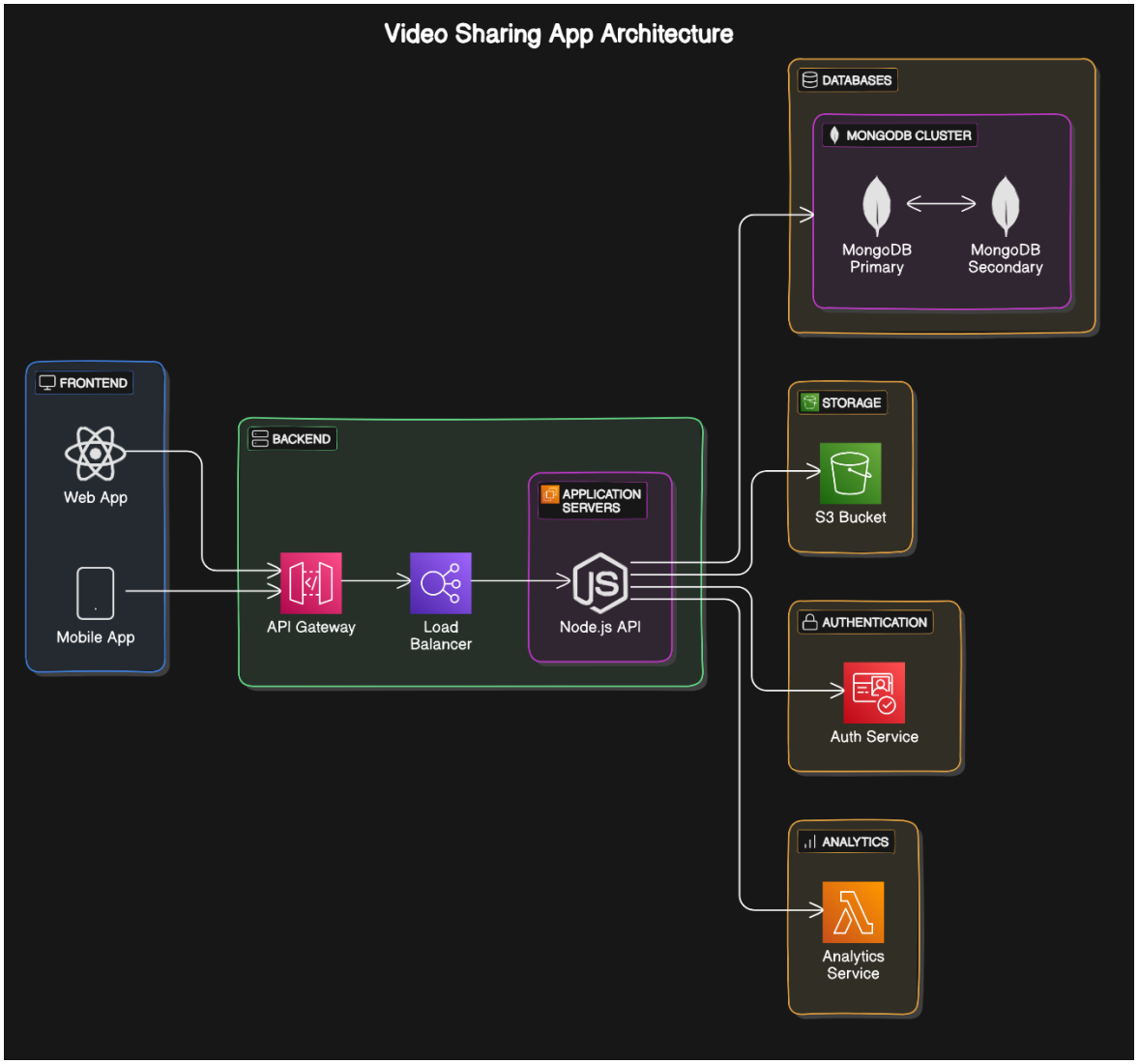

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How users interact with the application (Web UI, Mobile App)	HTML, CSS, JavaScript, React.js
2.	Application Logic-1	Video upload and management logic	Node.js, Express.js
3.	Application Logic-2	User authentication and authorization	JWT, OAuth 2.0
4.	Application Logic-3	Video streaming service	FFmpeg, HLS
5.	Database	Storing user data and video metadata	MongoDB, NoSQL
6.	Cloud Database	Cloud-based database service	MongoDB Atlas
7.	File Storage	Storing video files	AWS S3, Local File System
8.	External API-1	Payment processing API	Stripe API
9.	External API-2	Video transcoding API	AWS Elastic Transcoder
10.	Machine Learning Model	Content recommendation system	TensorFlow, Scikit-Learn
11.	Infrastructure (Server / Cloud)	Application deployment on cloud	AWS EC2, Docker, Kubernetes

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List of open-source frameworks used	React.js, Node.js, Express.js
2.	Security Implementations	Security and access controls (firewalls, encryption)	SHA-256 Encryption, IAM Controls
3.	Scalable Architecture	Justification for scalability (microservices, load balancing)	Kubernetes, Docker, AWS Elastic Load Balancing
4.	Availability	Justification for availability (distributed servers, failover strategies)	AWS Auto Scaling, Multi-AZ Deployments
5.	Performance	Design considerations for performance (caching, CDNs, request handling)	Redis, AWS CloudFront, Nginx