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

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Team ID	SWTID1720091047
Project Name	Project – Ecommerce app
Maximum Marks	

Technical Architecture:
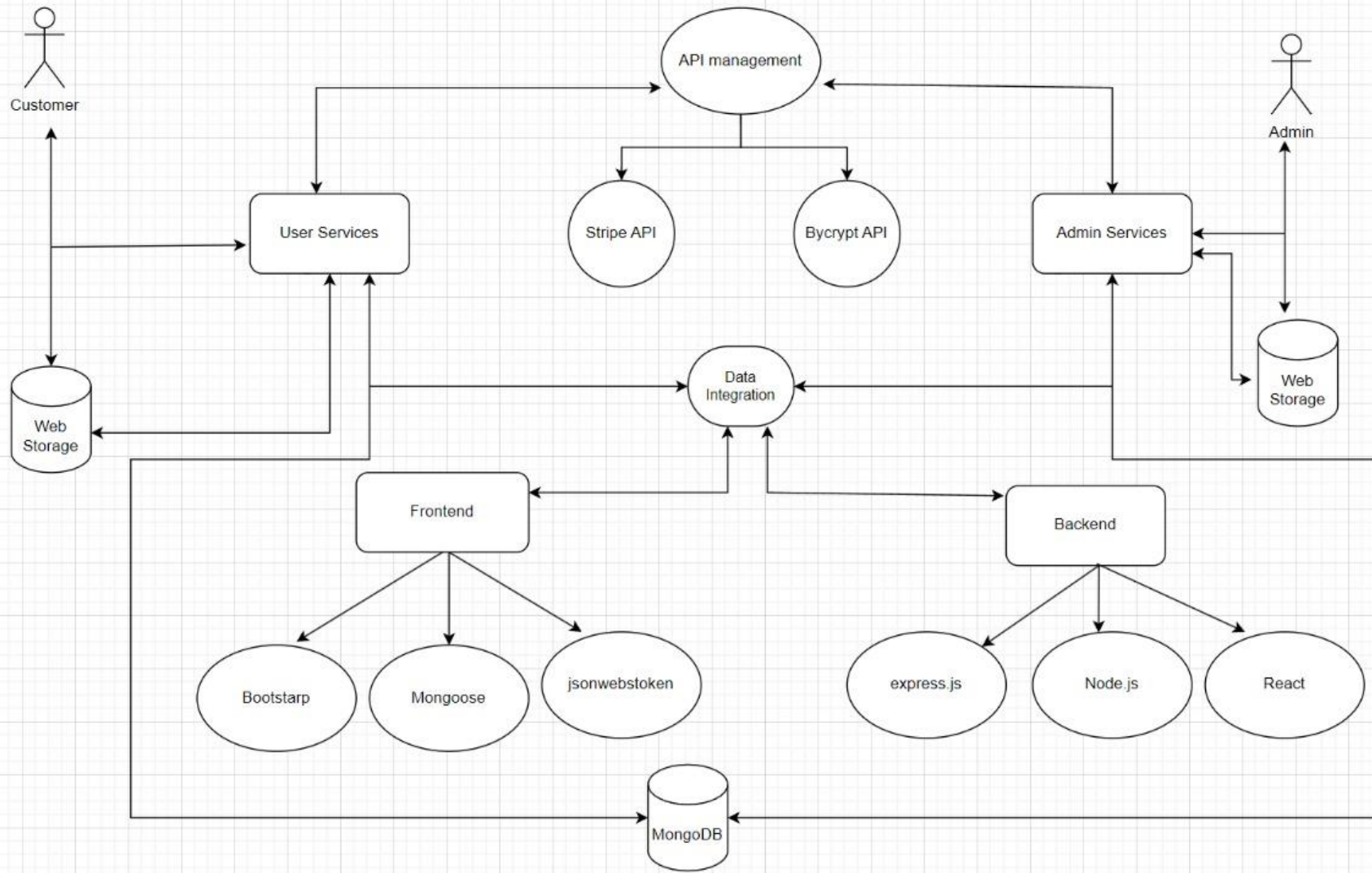
Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The user interface in an eCommerce application offers intuitive navigation, product browsing, detailed views, a seamless cart experience, secure checkout, user profiles, and order tracking for a smooth shopping journey.	HTML, CSS, JavaScript, React.js
2.	Application Logic-1	Manages user authentication, enabling secure registration, login, and session management using JWT, ensuring users can securely access and interact with their account and purchase history.	Express, Node.
3.	Application Logic-2	handles user authentication, product management, order processing, and payment integration, ensuring secure transactions, efficient inventory control, and seamless user experience in the eCommerce application.	Node, Restful API.
4.	Application Logic-3	Manage order processing, including cart updates, payment integration, and order status tracking, ensuring seamless transactions and user experience in the eCommerce application."	Restful API, Express.
5.	Application Logic-4	Logic for processing payments securely usingStripe.	Node, Express.

6.	Database	The database for an eCommerce application stores user details, product information, orders, and categories, enabling efficient data management and retrieval for seamless shopping experiences and administrative tasks.	MongoDB (NoSQL).
7.	File Storage	File storage in an eCommerce application facilitates secure storage and retrieval of product images, user uploads, and other media assets essential for enhancing user experience and product presentation.	Local Filesystem.
8.	External API-1	The Payment Methods API allows you to accept a variety of payment methods through a single API.	Stripe API.
9.	External API-2	Simple API to help you check your password strategy.	Bcrypt API.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	React powers dynamic interfaces, Express.js manages robust APIs, Bootstrap ensures responsive design, Mongoose handles MongoDB interactions, jsonwebtoken secures authentication, and Stripe API manages secure payments.	Express.js, Mongoose, jsonwebtoken, Stripe API, React, Bootstrap.
2.	Security Implementations	JWTs generate and verify for secure user authentication and session management.	jsonwebtoken (JWT).
3.	Security Implementations	Passwords are hashed and salted before storage to enhance security and protect against unauthorized access during potential data breaches.	Bcrypt.
4.	Scalable Architecture	Supports horizontal scaling by adding additional server instances to evenly distribute incoming traffic.	Express.js, Node.js
5.	Availability	MongoDB enables users to access data from the database at any time.	MongoDB.
6.	Performance	The application leverages JavaScript and asynchronous programming to boost overall performance.	Express.js, node.js