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

Date	27 October 2022
Team ID	Team - 591011
Project Name	Snack Squad: A Customizable Snack Ordering and Delivery app
Maximum Marks	4 Marks

Technical Architecture:

Example: Order processing of food delivery app

Guidelines:

1. Include all the processes (As an application logic / Technology Block)
2. Provide infrastructural demarcation (Local / Cloud)
3. Indicate external interfaces (third party API's etc.)
4. Indicate Data Storage components / services
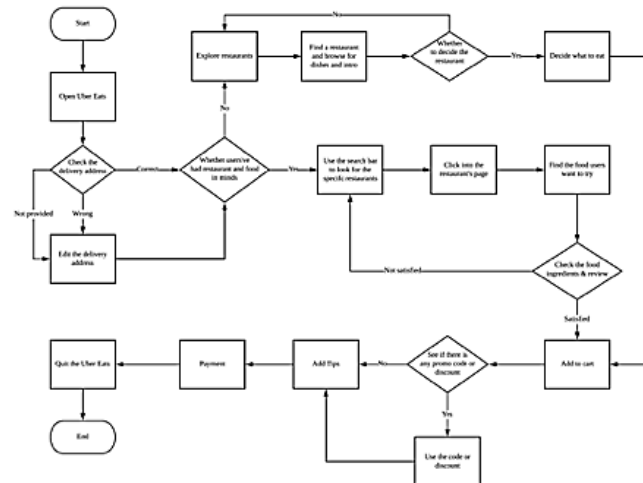5. Indicate interface to machine learning models (if applicable)

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	Mobile App (Customer)	Customer-facing mobile application.	React Native or Flutter (Cross-platform development framework)
2.	Web App (Snack Providers)	Web-based portal for snack providers.	Java / Python - React, Angular, or Vue.js (Frontend frameworks)
3.	Backend Server	Core backend logic, order processing, and APIs.	Node.js, Ruby on Rails, Django, or Express.js (Backend frameworks)
4.	Database Management System	Storage of user data, snack details, orders.	PostgreSQL, MySQL (Relational databases) or MongoDB (NoSQL database)
5.	Geolocation and Mapping	Location tracking and mapping services.	Google Maps, Mapbox, or equivalent services
6.	Push Notifications	Real-time updates and notifications.	Firebase Cloud Messaging (FCM), Apple Push Notification Service (APNS), or similar services
7.	Cloud Services	Hosting and scalability.	AWS, Azure, Google Cloud, or similar cloud platforms
8.	Authentication	User authentication and authorization.	Firebase Authentication, OAuth, or equivalent solutions
9.	APIs	Third-party integrations.	Payment gateways, user authentication, mapping, and others as needed
10.	Development Tools	Tools for coding and development.	Visual Studio Code, JetBrains IDEs, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	User-Friendly Interface	A visually appealing and intuitive user interface for customers and snack providers.	Material Design or Human Interface Guidelines for mobile apps, responsive design for web apps.
2.	Customization Features	Allow customers to personalize their snack orders with various options.	Implement custom UI components for order customization in the mobile app and web portal.
3.	Real-Time Order Tracking	Enable users to track the status and location of their snack orders in real-time.	Integration with geolocation services and mapping APIs.
4.	Secure Payment Processing	Secure handling of payment transactions and sensitive user data.	Integration with well-established payment gateways like Stripe or PayPal.
5.	Scalability	Ability to handle a growing number of users, snack providers, and orders.	Cloud hosting (e.g., AWS, Azure, Google Cloud) for scalable infrastructure.