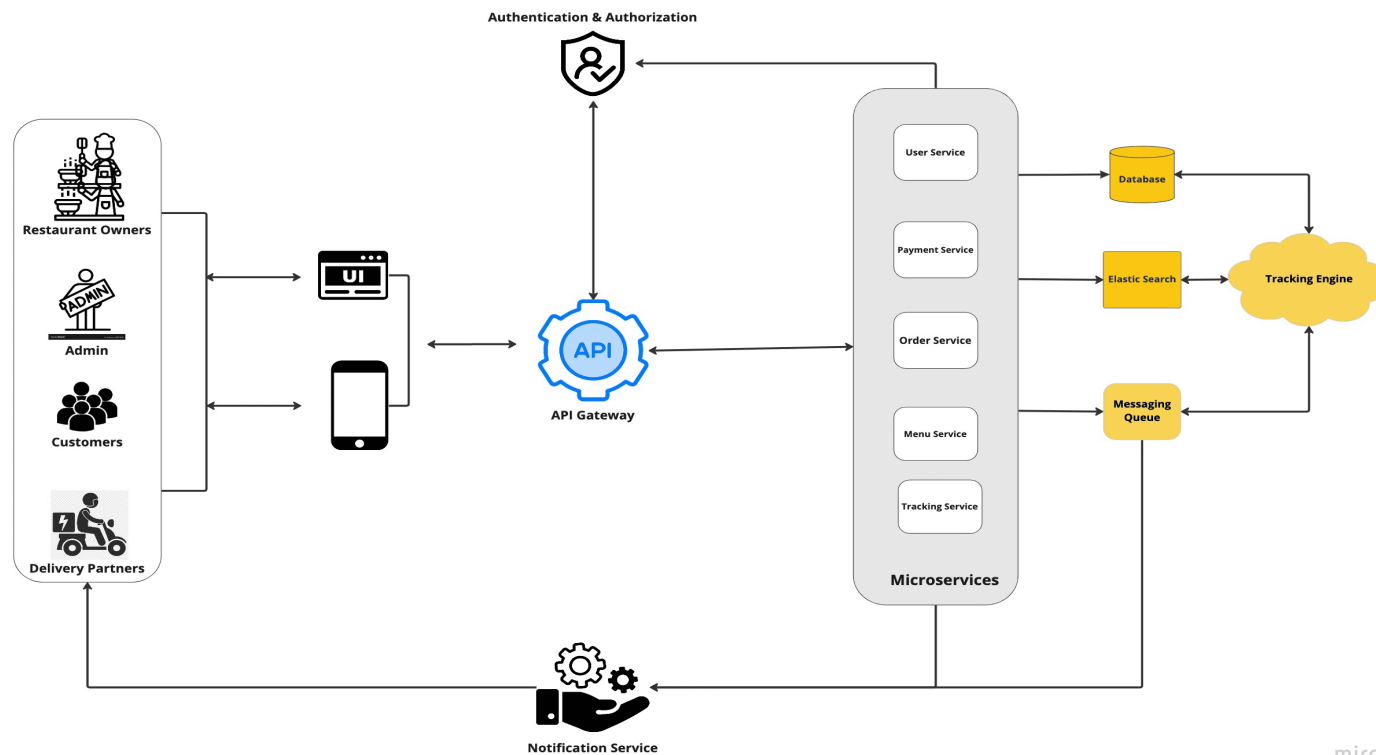


Project Design Phase-II

Technology Stack (Architecture & Stack)

Date	03October 2022
Team ID	NM2023TM1D04226
Project Name	Project –Create a Reel Using Canva

Technical Architecture:



miro

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The user interface component is the part of the app that users interact with. It includes the design, layout, and user experience	HTML, CSS, JavaScript
2.	Application Backend	The backend is responsible for processing user requests, managing business logic, and communicating with databases and external services.	Node.js, Ruby on Rails, Django, or Java.
3.	Database Management System	A database is used to store user data, order information, restaurant details, and other structured data	MySQL, PostgreSQL, MongoDB for NoSQL data, and Redis for caching.
4.	Geolocation Services	Geolocation services are used to determine the location of users and drivers for order tracking and delivery.	Google Maps or Mapbox are integrated for geolocation.
5.	Payment Processing	Payment processing handles transactions, integrates with payment gateways, and ensures secure payment methods	Stripe, PayPal, and Braintree
6.	Authentication and User Management	This component manages user registration, authentication, and user profiles.	Libraries like Firebase Authentication, OAuth, or custom authentication
7.	Notification Service	Real-time notifications are sent to users and drivers regarding order status and updates.	Push notification services like Firebase Cloud Messaging (FCM) for Android and Apple Push Notification Service (APNs) for iOS.

8.	External APIs	External APIs are used to connect with services such as SMS gateways, email services, and restaurant partners' APIs for menu synchronization.	RESTful APIs are commonly used for integration, and tools like Postman or Insomnia assist in API testing and management.
9.	Review and Feedback System	This component handles user reviews and feedback on restaurants and orders.	Data can be stored in a database, and APIs can be used to display and manage reviews. Sentiment analysis and NLP libraries can be employed for feedback analysis.
10.	Machine Learning (ML) Integration	Machine learning models can be used for predicting delivery times, recommending restaurants, or detecting fraud.	TensorFlow, scikit-learn

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	User-Friendly Interface	The app should have an intuitive and visually appealing interface to ensure an excellent user experience.	Use responsive design and frameworks like React Native, Flutter, or web technologies to create user-friendly interfaces
2.	Security Implementations	Implement end-to-end encryption to secure user data and payment information during transmission	Use SSL/TLS for data encryption, and follow security best practices for data storage and access
3.	Scalable Architecture	Implement a microservices architecture to break down the app into smaller, independently deployable components for scalability.	Containerization tools like Docker and container orchestration platforms like Kubernetes.
4.	Availability	Deploy the app on a high-availability infrastructure to minimize downtime	Use cloud providers (AWS, Azure, Google Cloud) with redundant resources and load balancing

S.No	Characteristics	Description	Technology
5.	Performance	Use CDNs to deliver static content like images and menus quickly to users.	Services like Cloudflare or AWS CloudFront for CDN capabilities