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

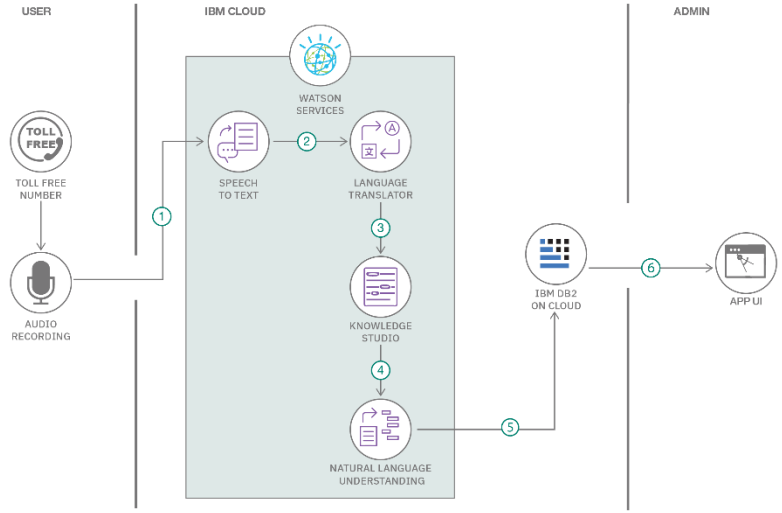
Date	19 February 2026
Team ID	LTVIP2026TMIDS41546
Project Name	OrderOnTheGo: Your On-Demand Food Ordering Solution
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

Example: Order processing during pandemics for offline mode

Reference: https://developer.ibm.com/patterns/ai-powered-backend-system-for-order-processing-during-pandemics/



Guidelines:

Include
Technolo
Provid
Indicat
Indicat
Indicat
applicable

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic-1	Logic for a process in the application	Java / Python
3.	Application Logic-2	Logic for a process in the application	IBM Watson STT service
4.	Application Logic-3	Logic for a process in the application	IBM Watson Assistant
5.	Database	Data Type, Configurations etc.	MySQL, NoSQL, etc.
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API-1	Purpose of External API used in the application	IBM Weather API, etc.
9.	External API-2	Purpose of External API used in the application	Aadhar API, etc.
10.	Machine Learning Model	Purpose of Machine Learning Model	Object Recognition Model, etc.
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	The application is built using open-source technologies to reduce cost and improve flexibility.	React.js, Node.js, Express.js, MongoDB
2.	Security Implementations	Secure authentication and authorization are implemented. Passwords are encrypted and access is role-based.	JWT, bcrypt (SHA-256 hashing), HTTPS, Firebase Auth, IAM Controls

S.No	Characteristics	Description	Technology
3.	Scalable Architecture	The system follows a 3-tier architecture (Frontend, Backend, Database) allowing horizontal scaling.	MERN Stack, AWS EC2, Microservices-ready structure
4.	Availability	The application is designed for high availability using distributed deployment and load balancing.	AWS Load Balancer, Cloud Deployment, Auto Scaling
5.	Performance	Performance is optimized using caching and efficient database queries to handle high traffic.	Redis (Cache), CDN, Indexed DB Queries, Cloudflare

References:

https://c4model.com/

https://developer.ibm.com/patterns/online-order-processing-system-during-pandemic/

https://www.ibm.com/cloud/architecture

https://aws.amazon.com/architecture

https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d