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

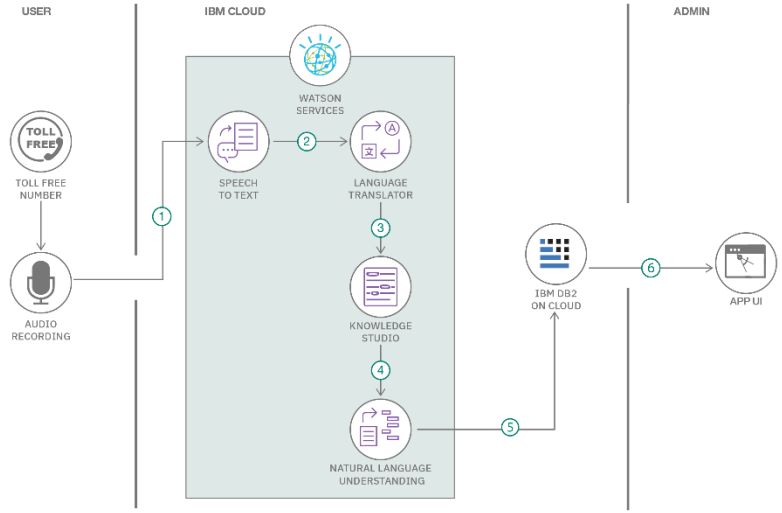
Date	26 October 2023
Team ID	Team-591309
Project Name	Voyage Vista : Illuminating Insights from Uber Expeditionary Analysis
Maximum Marks	4 Marks

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:

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)

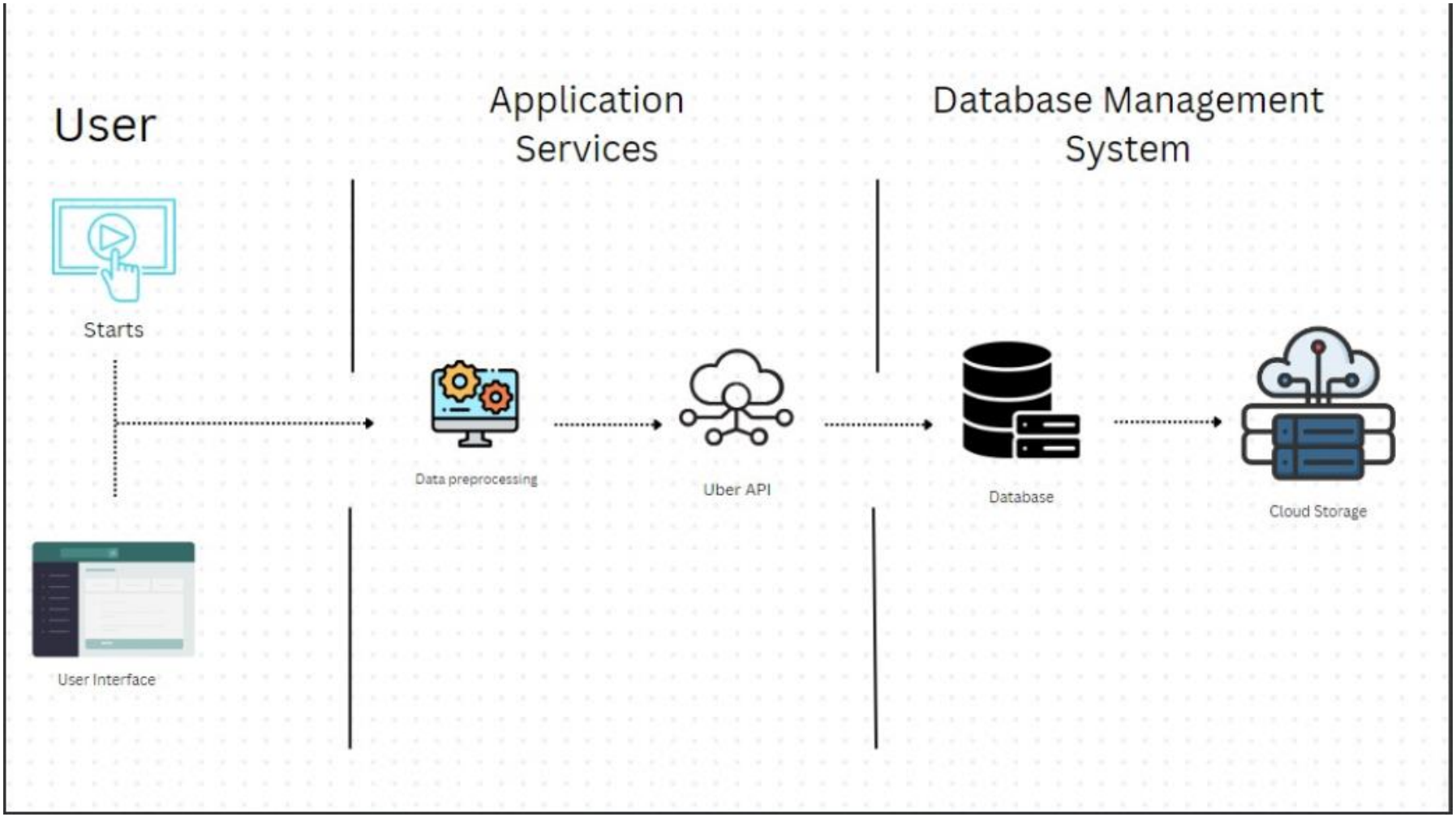

User
Application Services
Database Management System
Starts
Data preprocessing
Uber API
Database
Cloud Storage
User Interface

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.	Python,Bootstrap,Flask
2.	Application Logic-1	Logic for a process in the application	Python
3.	Database	Data Type, Configurations etc.	MySQL
4.	Cloud Database	Database Service on Cloud	Tableau
5.	File Storage	File storage requirements	Local File Storage
6.	External API	Purpose of External API used in the application	Uber API
7.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local Cloud

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Flask, Bootstrap
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	Flask
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	

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