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

Date	01 November 2023
Team ID	NM2023TMID04550
Project Name	Create a Google Business Page

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

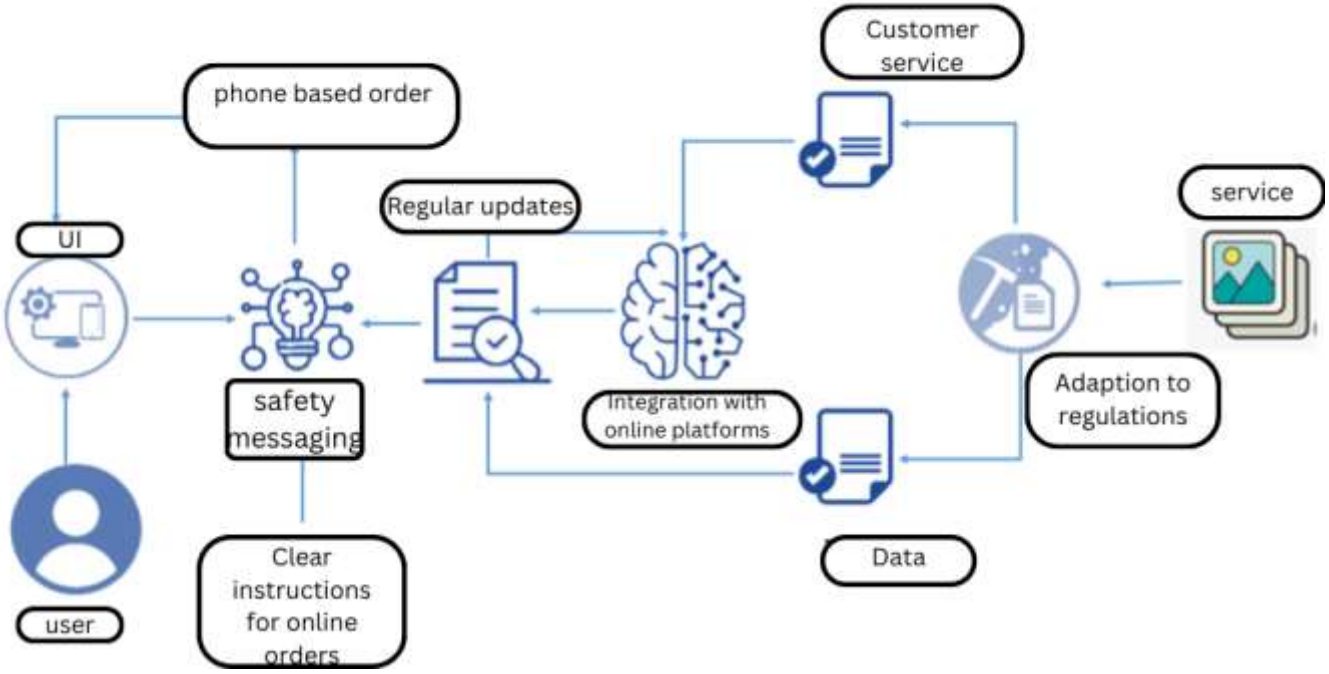

Table-1: Components & Technologies:

S. No	Component	Description	Technology
1.	User Interface	Facilitates user interaction for setting up and managing the Google Business Page.	HTML, CSS, JavaScript, and possibly the use of a development environment like Spyder.
2.	Application Logic - UI Creation	Utilizes HTML and CSS to construct the visual aspects of the web page for users to interact with.	HTML/CSS.
3.	Application Logic - Image Input Prediction	Employs JavaScript for predicting user inputs, especially through image uploads.	JAVA/Python
4.	Application Logic - Data Handling	Involves utilizing IBM Watson STT service to manage and process datasets, potentially for speech-to-text (STT) operations	IBM Watson STT service.
5.	Database	Manages the configuration and storage of data types for the business page	MySQL and potentially NoSQL databases
6.	Cloud Database	Storing datasets and enabling access to the web UI via cloud-based storage	IBM DB2, a cloud-based database management system
7.	File Storage	Storing datasets, possibly employing IBM Block Storage or local filesystems	IBM Block Storage or Local Filesystem
8.	External API-1	Integrates weather data, possibly to enhance the business page with weather-related information	IBM Weather API
9.	External API-2	Helps construct and enhance the web UI, ensuring ease of access for users	Web API
10.	Machine Learning Model	Assists in creating a user-friendly web application	Object Recognition Model, potentially using machine learning techniques
11.	Infrastructure (Server / Cloud)	Provides the necessary resources, be it local servers or cloud-based solutions, for hosting and managing the Google Business Page system	Local servers, Cloud Foundry, Kubernetes, or other scalable cloud resources

S. No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Jupyter notebook and Spyder are used to design the web UI, indicating the usage of open-source frameworks	jupyter Notebook might be utilized for initial interface design and possibly integration with Spyder for development purposes
2.	Security Implementations	Employs SHA-256 encryption/decryption and IAM (Identity and Access Management) control by developers to ensure data security	SHA-256 encryption, IAM control for user access management
3.	Scalable Architecture	Offers reliable and precise output for the user with scalability. Utilizes Jupyter and Flask for architecture	Jupyter and Flask frameworks for providing a scalable and accurate architecture
4.	Availability	The application is accessible as a web interface, using technologies like Flask, HTML, and JavaScript	Flask for back-end, HTML, and JavaScript for front-end web interface development
5.	Performance	The application is user-friendly, providing quick prediction outputs via a web interface on the browser. It utilizes JavaScript and Flask, possibly integrating with Spyder	JavaScript and Flask, possibly combined with Spyder for improved user experience and quick response

Table-2: Application Characteristics: