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

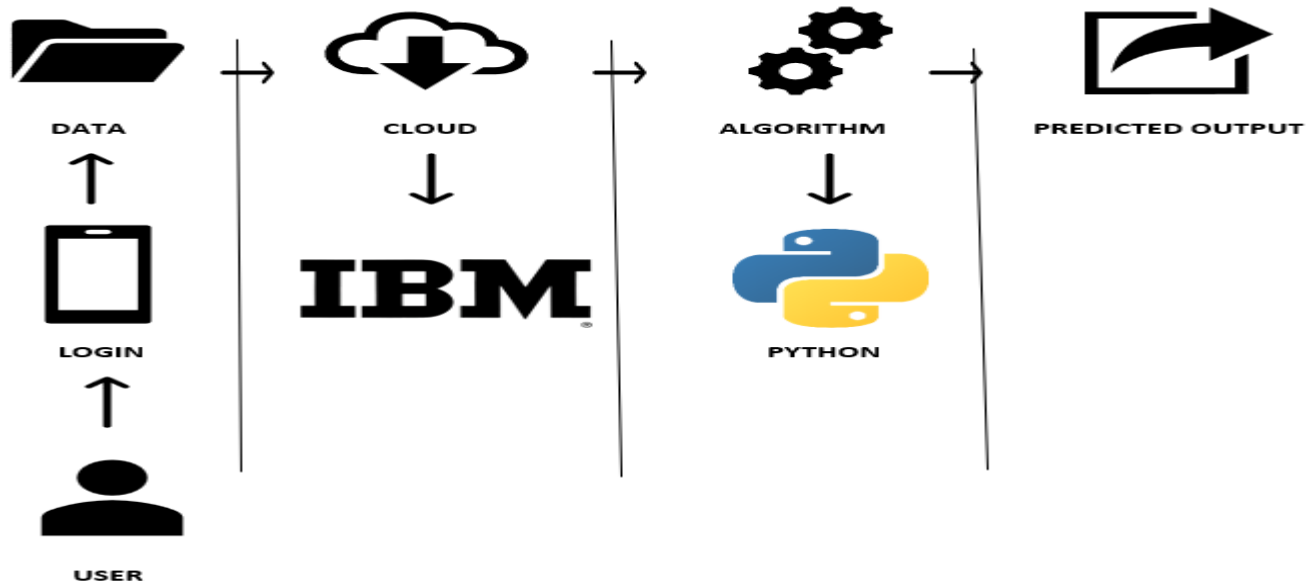| Date	23 October 2022
Team ID	PNT2022TMID01345
Project Name	Project - DemandEst - AI powered Food Demand Forecaster
Maximum Marks	4 Marks

Technical Architecture:

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	User access the application through web	HTML
2.	Application Logic-1	Building a suitable machine learning	Python
3.	Application Logic-2	linking the machine learning model to the HTML page	IBM Watson Studio
4.	File Storage	Data is stored in local storage and in cloud	IBM Block Storage or Other Storage Service or Local Filesystem
5.	External API-1	Gets user login details and region	IBM Weather API, etc.
6.	Machine Learning Model	Purpose of Machine Learning Model is to predict the demand in particular region for next 10 weeks	Regression algorithm
7.	Infrastructure (Server / Cloud)	IBM configuration app is used for feature and infrastructure service on IBM cloud	IBM Cloud

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	No open source framework	Python
2.	Security Implementations	Authentication using mail id and password	Password based
3.	Scalable Architecture	Presentation tier-HTML Application tier-Python This model predicts the order demand based on the food interest and region easily through online for the upcoming weeks.	IBM Cloud
4.	Availability	Data are updated periodically to predict the demand accurately	IBM Watson Assistant
5.	Performance	Accurately predicts the demand for particular region	Regression machine learning model