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

Team ID	PNT2022TMID51052
Project Name	AI Powered- Food Demand Forecaster
Maximum Marks	4 Marks

TEAM MEMBERS:

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TECHNICAL ARCHITECTURE:

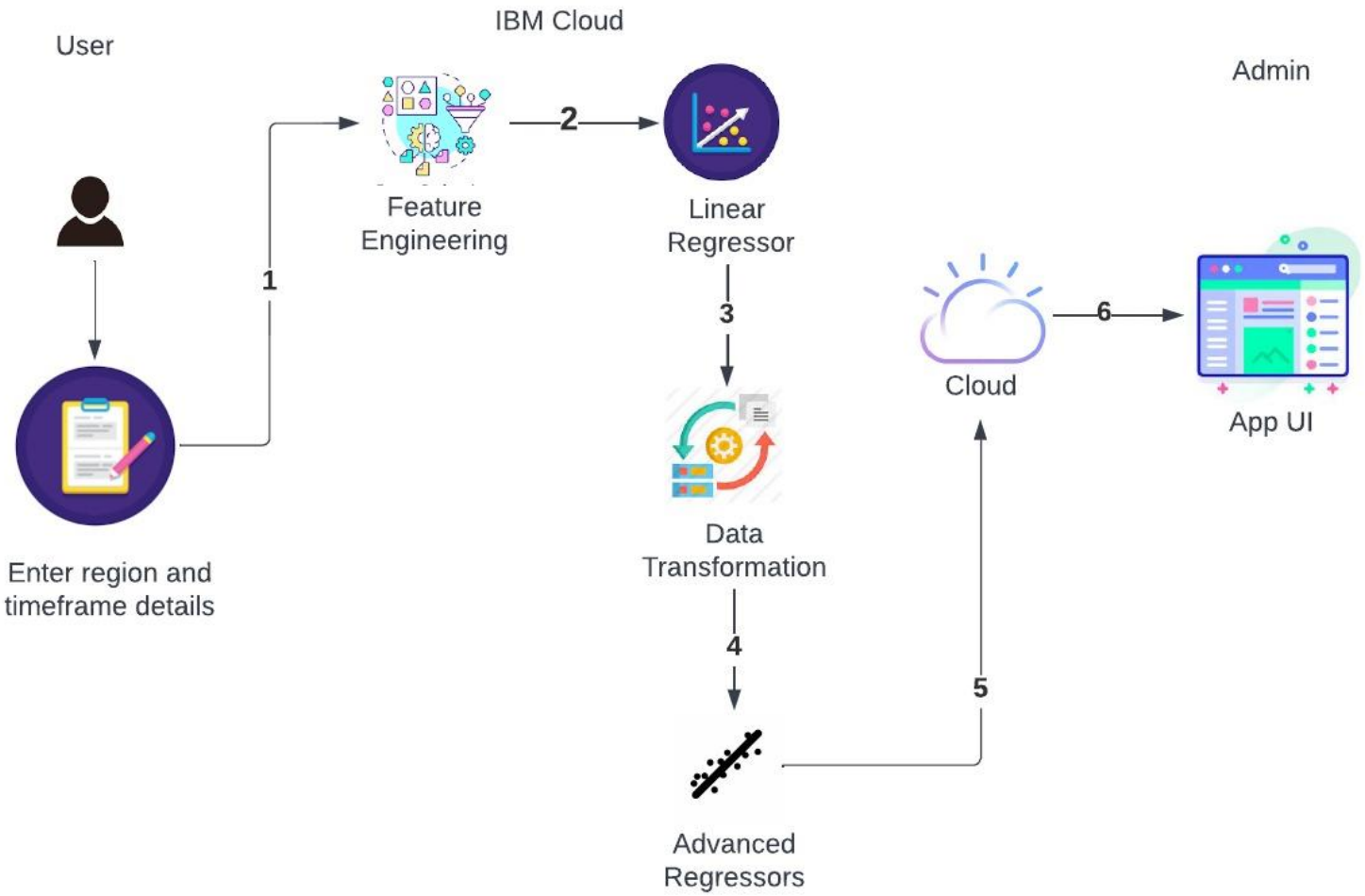
User
IBM Cloud
Admin
Feature Engineering
Linear Regressor
Enter region and timeframe details
Data Transformation
Cloud
App UI
Advanced Regressors
1
2
3
4
5
6

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	User Interface for Food Demand Prediction which asks for registration credentials and requirement details.	HTML, CSS, JavaScript
2.	Input and output	Gets inputs(region and timeframe) from user and displays the output using python. It uses get and post http methods in backend for processing.	Python
3.	Libraries	Python libraries like Numpy, pandas, matplotlib, sklearn, seaborn for processing the dataset.	Google Colab
4.	Algorithm	Linear model using linear regression and advanced model using XGBoost, CATBoost and LightBoost regression are implemented.	Regression models and ensemble techniques.
5.	Database	Csv file	
6.	Machine Learning Model	Regression models are used to increase the speed at which data is processed and analysed.	Advanced Regression models.

Table-2: Application Characteristics:

S.No	Characteristics	Description
1.	Scalable Architecture	Highly-customizable infrastructure according to specific customer's needs
2.	Availability	The system is monitored for bugs and so it is highly reliable.
3.	Performance	Feature Engineering extracts valuable features from raw data which significantly improves the efficiency.