Project Design Phase-II
Technology Stack (Architecture & Stack)
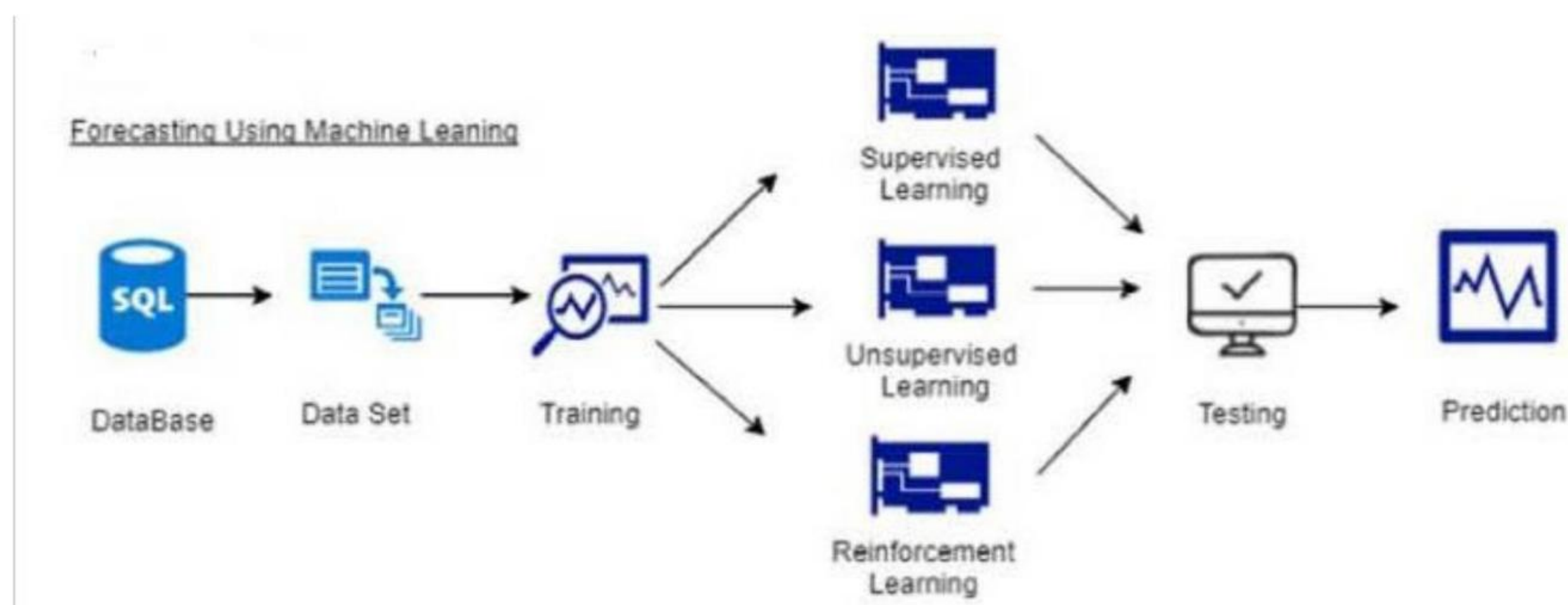
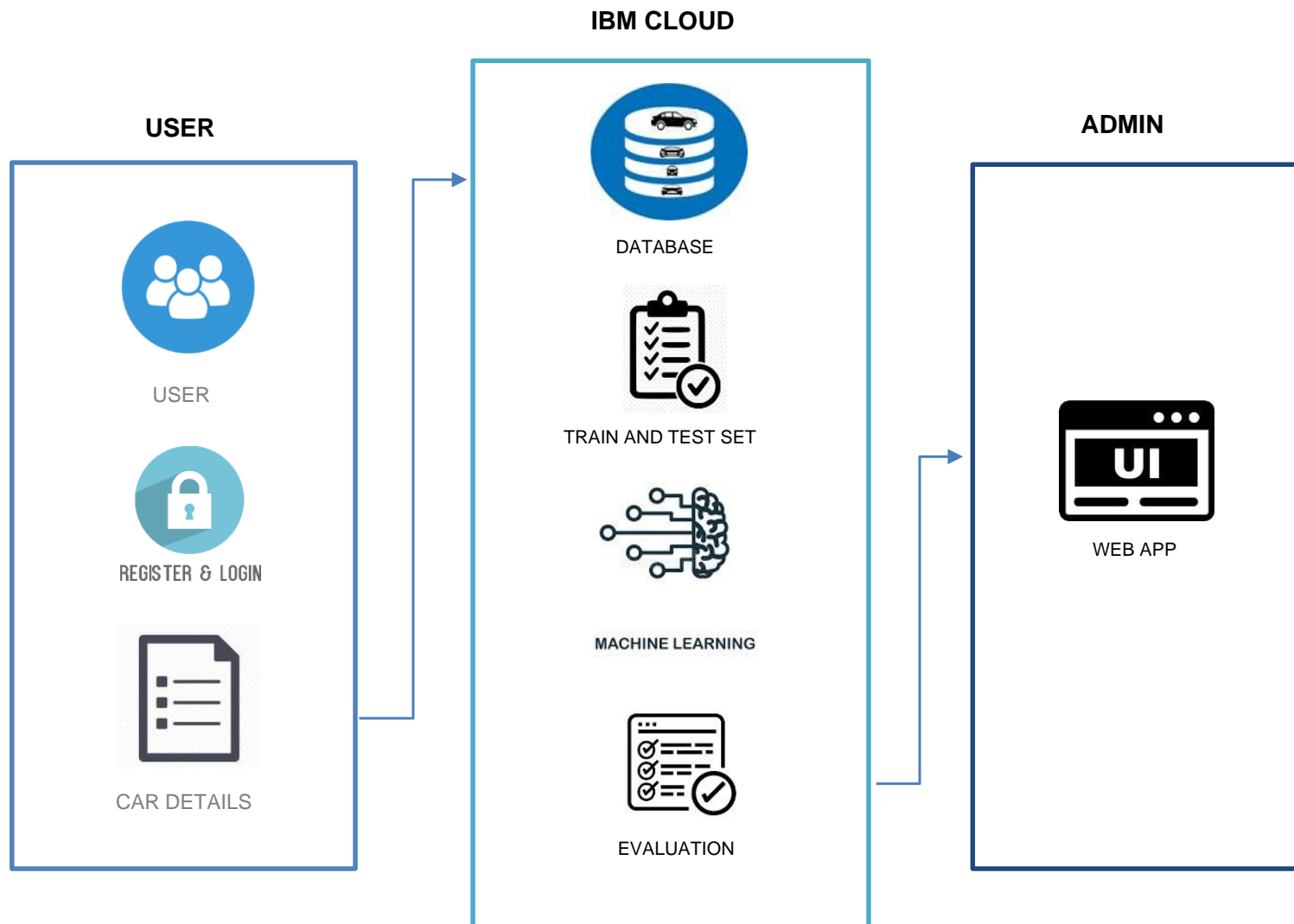| Date	03 October 2022
Team ID	PNT2022TMID40163
Project Name	Project – Car Resale Value Prediction
Maximum Marks	4 Marks

Technical Architecture:

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

Example: Car Resale Value Prediction

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

Project Design Phase-II
Technology Stack

IBM CLOUD

USER

ADMIN

USER

REGISTER & LOGIN

CAR DETAILS

DATABASE

TRAIN AND TEST SET

MACHINE LEARNING

EVALUATION

WEB APP

Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	A website where the user interacts	HTML, Python ,Flask
2.	Data Pre-process	Pre-processing of the dataset	Pandas, Numpy
3.	Prediction	Resale value Prediction	Python models
4.	Cloud Database	Database Service on Cloud	IBM Cloud
5.	Machine Learning Model	ML model for predicting prices	Regression Model

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	open-source frameworks used for development	Python, Flask, Python Libraries
2.	Security Implementations	User Authentication	SHA-256 Encryption
3.	Scalable Architecture	The 3-tier architecture (Web, Application, Database) is scalable.	IBM Cloud
4.	Availability	Application made available even under heavy load	IBM Cloud - cloud hosting
5.	Performance	Able to handle multiple requests	IBM Cloud - load balancers