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

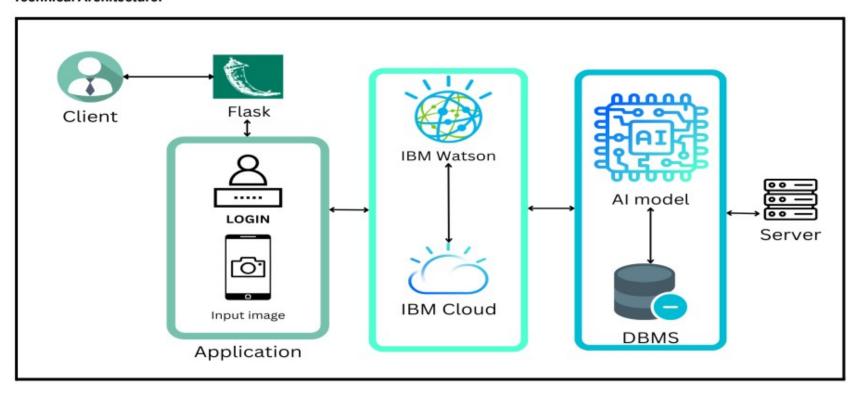| Date	03 October 2022
Team ID	PNT2022TMID29716
Project Name	Intelligent Vehicle Damage Assessment & Cost Estimator for Insurance Companies
Maximum Marks	4 Marks

Technical Architecture:

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The user interacts with the web UI application.	HTML, CSS, python
2.	Application Logic-1	Getting user input image	Python
3.	Application Logic-2	Getting model output for damage prediction	IBM Watson STT service
4.	Application Logic-3	Getting model output for cost estimation	IBM Watson Assistant
5.	Database	Data Type – Images and user inputs details are stored	MySQL, NoSQL, etc.
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
7.	File Storage	Received user details and received user input images of the vehicle is stored in cloud	IBM Block Storage
8.	External API-1	Purpose of External API used in the application	IBM Weather API, etc.
9.	External API-2	Purpose of External API used in the application	Aadhar API, etc.
10.	Machine Learning Model	Purpose of the AI Model is for estimating the cost of the damaged vehicle.	Object Recognition Model
11.	Infrastructure (Server / Cloud)	On cloud server we will be deploying the AI Model using flask in the web page	Python flask.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Open-source frameworks used is IBM Watson	Technology of Open Source frameworkIBM Watson
2.	Security Implementations	IBM Cloud	Certified Watson assistant for Encrypted file systems, Encrypted storage systems, Key management systems.
3.	Scalable Architecture	Web server - static and dynamic website content present in the website will be update based upon user demands and suggestion Application server - updation of the basic functionality of the website and integration of new logic within the website can be done Database server - based upon the varying inputs given by the user the database will be modified constantly	IBM Watson Assistant, Python, MySQL
4.	Availability	The AI model is made available instantly to user at any point of time	IBM Watson Cloud assistance
5.	Performance	IBM Watson –automate processes, The deep learning model is trained using IBM Watson studio for better performance and quick accessibility .	IBM Watson Assistant