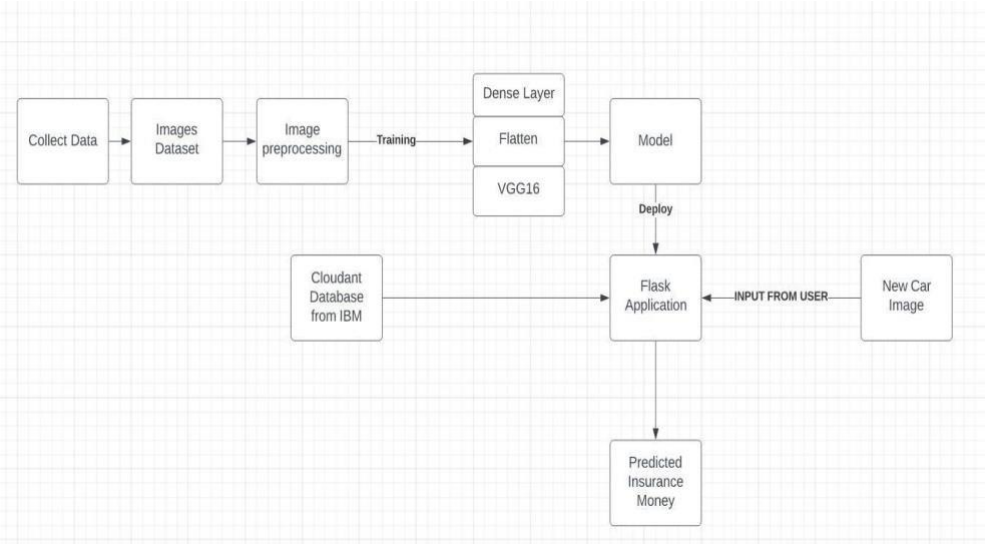
Project Design Phase-II Technology Stack (Architecture & Stack)

Date	9 November 2022
Team ID	PNT2022TMID25396
Project Name	Intelligent Vehicle Damage Assessment & Cost Estimator for Insurance Companies
Maximum Marks	4 Marks

Technical Architecture:

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



Guidelines:

1. Include all the processes (As an application logic / Technology Block)
2. Provide infrastructural demarcation (Local / Cloud)
3. Indicate external interfaces (third party API's etc.)
4. Indicate Data Storage components / services
5. Indicate interface to machine learning models (if applicable)

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	User interacts with application Web UI	HTML, CSS, Python flask, keras.
2.	Application Logic-1	User interface	HTML, CSS
3.	Application Logic-2	Predictive model	AI & ML
4.	Application Logic-3	Web Application	IBM Watson Assistant, Flask
5.	Database	No external databases used	No Technology Needed
6.	Cloud Database	Database Service on Cloud, Model building in cloud	IBM DB2, IBM Cloudant etc.
7.	File Storage	No actions needed	No actions needed
8.	External API-1	To predict the damage of the vehicle	Model API.
9.	External API-2	To find the cost based on vehicle damage	COST API.
10.	Machine Learning Model	The Purpose of Machine Learning Model is to predict the disease	Image processing model, etc.
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud	Local, IBM cloud, Flask, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Flask, IBM cloud	Jupiter notebook, pandas, CNN, ANN, etc.
2.	Security Implementations	No security actions needed.	No action.
3.	Scalable Architecture	Scalable with high efficiency image.	Deep learning model.
4.	Availability	Available through all platforms as websites	IBM cloud, Flask.
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN’s) etc.	AI & ML model, Flask.