Project Design Phase-II

Technology Stack (Architecture & Stack)

Date	08 November 2022
Team ID	PNT2022TMID01238
Project Name	Intelligent Vehicle Damage Assessment and Cost Estimator for Insurance Companies
Maximum Marks	4 Marks

TECHNICAL ARCHITECTURE:

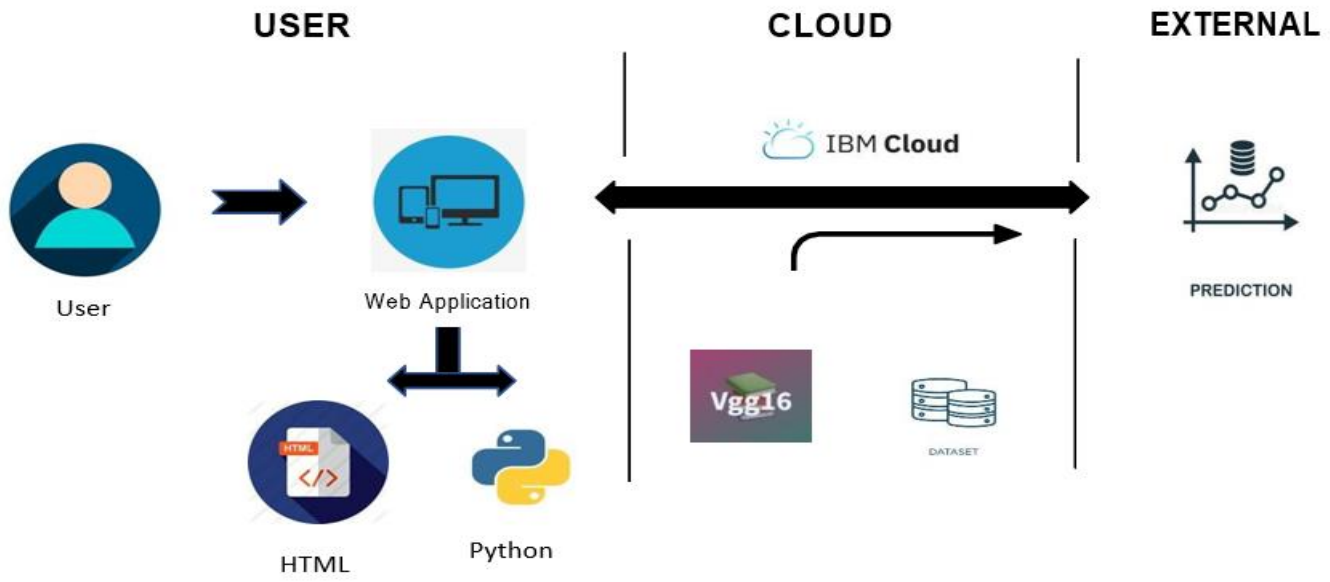

Table-1: Components & Technologies

S.No	Component	Description	Technology
1.	User Interface	User interact with Web Application	HTML
2.	Application Logic-1	Build HTMLpage for login, Registration, Prediction ,Logout	Python ,WSGI application.
3.	Application Logic-2	VGG16 is object detection and classification algorithm which is able to classify 1000 images of 1000 different categories with 92.7% accuracy.	Python
4.	Image Data Generator	Data generator has been used to constructed for train and test	Python
5.	Cloud Database	IBM CloudIdentity & Access Management enables you to securely authenticate users and control access to all consistently.	IBM Bluemix cloud platform
6.	File Storage	File storage requirements	Local file system or Other storage service
7.	External API-1	Registration through email.	HTML page
8.	External API-2	Confirmation via email	Email
9.	Machine Learning Model	Purpose of Machine Learning Model	Object Recognition Model, etc.

10.	Infrastructure (Server / Cloud)	Database has been Installed to run a service and deployed in IBM cloud instance	IBM Bluemix cloud platform.

Table-2: Application Characteristics

S.No	Characteristics	Description	Technology
1.	Security Implementations	Careful examine about choosing an image for detecting or uploading images of your damaged portion of vehicle	Encryption
2.	Scalable Architecture	This method is ensured accurate information about The claim predicted amount	Deep learning
3.	Availability	Help to get estimated amount at a time which help customer to claim insurance in earlier stage.	Image Preprocessing
4.	Performance	The trained model can predict an accurate result and took less time when compare to reality	IBM cloud