

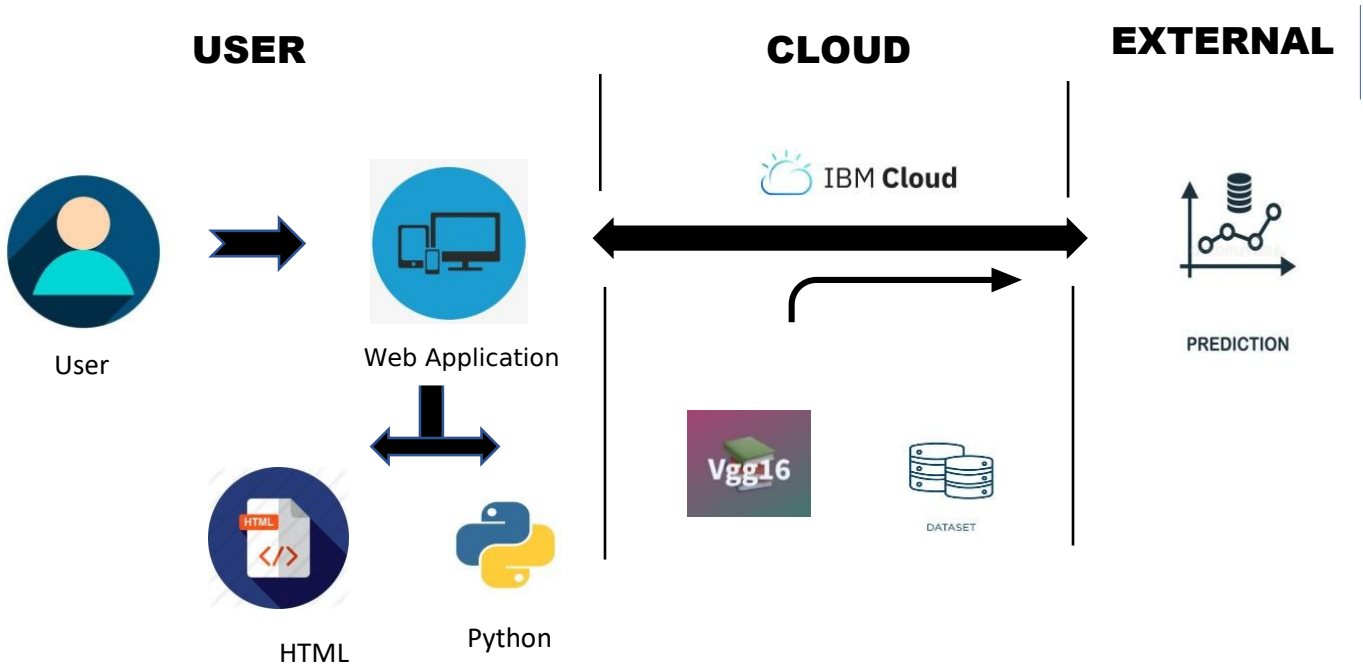
## **PROJECT DESIGN PHASE-II**

### **TECHNOLOGY STACK (ARCHITECTURE & STACK)**

---

|               |  |
|---------------|--|
| DATE          | 30 October 2022  |
| TEAM ID       | PNT2022TMID14192   |
| PROJECT NAME  | Project - Intelligent Vehicle Damage Assessment and Cost Estimator for Insurance Companies |
| MAXIMUM MARKS | 4 marks  |

#### **TECHNICAL ARCHITECTURE :**



**TABLE 1 : Components & Technologies**

| S.NO | COMPONENTS                       | DESCRIPTION  | TECHNOLOGY                                 |
|------|----------------------------------|--|--|
| 1    | User Interface                   | User interact with Web application   | HTML                                       |
| 2    | Application logic 1              | Build HTML page 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 Cloud Identity & 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    | Infrastructure ( Server & cloud) | Database has been Installed to run a service and   | IBM Bluemix cloud platform.                |

|  |  |                                |  |
|--|--|--------------------------------|--|
|  |  | deployed in IBM cloud instance |  |
|--|--|--------------------------------|--|

**TABLE 2: Application characteristics**

| S.NO | CHARACTERISTICS       | DESCRIPTION  | TECHNOLOGY          |
|------|-----------------------|--|---------------------|
| 1    | Security implentation | 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           |