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

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| Date | 8 november 2022 |
| Team ID | PNT2022TMID50946 |
| Project Name | Intelligent Vehicle Damage Assessment & Cost Estimator for Insurance Companies |
| Maximum Marks | 4 Marks |

**Technology 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. | Machine Learning Model | Purpose of the AI Model is for estimating the cost of the damaged vehicle. | Object Recognition Model |
| 9. | 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 framework, IBM 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 - updating 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 |

Claims detennined

to be fast tracked

Proper covemges opened and reserves sei. sending

8

Self inspection

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link sent to

customer

Photos of dnmage uploaded

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via EFf/Ae--1

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data sent to claim systems

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Claims system sends final claim data to lJWond other required

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in forc:e status etc

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finance applic:ation. UW sent claims info to be utilized for renewals

