**Project Design Phase-II**

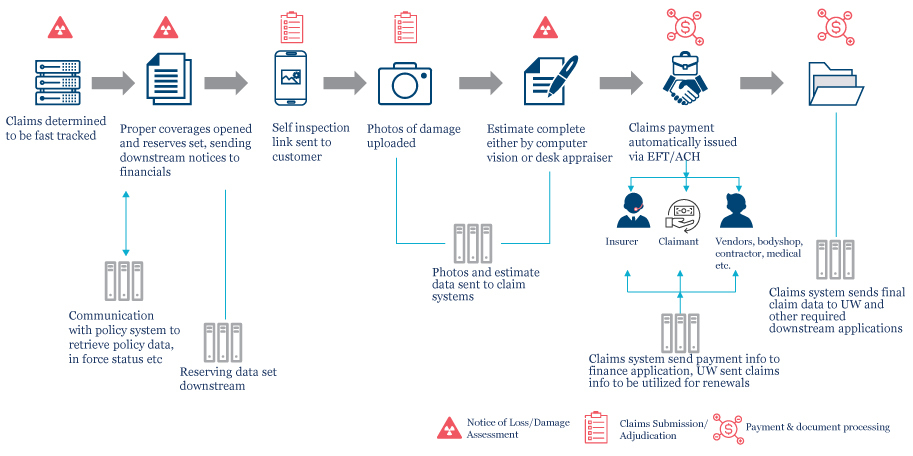
**Technology Stack (Architecture & Stack)**

|  |  |
| --- | --- |
| Date | 03 October 2022 |
| Team ID | PNT2022TMID00684 |
| Project Name | Project - Intelligent Vehicle Damage Assessment & Cost Estimator for Insurance Company |
| Maximum Marks | 4 Marks |

**Technical Architecture:**

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

Figure 1: Architecture for the - Intelligent Vehicle Damage Assessment & Cost Estimator for Insurance Company

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**Table-1 : Components & Technologies:**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **Component** | **Description** | **Technology** |
|  | User Interface | The user can use the website to claim the insurance. | HTML, CSS, JavaScript |
|  | Application Logic-1 | Image processing and recognition. | Python |
|  | Application Logic-2 | Logic for a process in the application | IBM Watson STT service |
|  | Application Logic-3 | Logic for a process in the application | IBM Watson Assistant |
|  | Database | Dataset | System |
|  | Cloud Database | Database Service on Cloud | IBM DB2, IBM Cloudant etc. |
|  | File Storage | File storage requirements | IBM Block Storage or Other Storage Service or Local Filesystem |
|  | Machine Learning Model | Purpose of Machine Learning Model | Object Recognition Model, etc. |
|  | Infrastructure (Server / Cloud) | Application Deployment on Local System / Cloud  Local Server Configuration:  Cloud Server Configuration : | Local, Cloud Foundry, Kubernetes, etc. |

**Table-2: Application Characteristics:**

| **S.No** | **Characteristics** | **Description** | **Technology** |
| --- | --- | --- | --- |
|  | Open-Source Frameworks | List the open-source frameworks used | Technology of Opensource framework |
|  | Security Implementations | List all the security / access controls implemented, use of firewalls etc. | e.g. SHA-256, Encryptions, IAM Controls, OWASP etc. |
|  | Scalable Architecture | Justify the scalability of architecture (3 – tier, Micro-services) | Technology used |
|  | Availability | Justify the availability of application (e.g. use of load balancers, distributed servers etc.) | Technology used |
|  | Performance | Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN’s) etc. | Technology used |

**References:**

[**https://ieeexplore.ieee.org/abstract/document/9752971**](https://ieeexplore.ieee.org/abstract/document/9752971)

[**https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=4118440**](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4118440)

[**https://www.taylorfrancis.com/chapters/edit/10.1201/9781003180593-10/damaged-vehicle-parts-recognition-using-capsule-neural-network-kundjanasith-thonglek-norawit-urailertprasert-patchara-pattiyathanee-chantana-chantrapornchai**](https://www.taylorfrancis.com/chapters/edit/10.1201/9781003180593-10/damaged-vehicle-parts-recognition-using-capsule-neural-network-kundjanasith-thonglek-norawit-urailertprasert-patchara-pattiyathanee-chantana-chantrapornchai)