**Project Design Phase-II**

**Technology Stack (Architecture & Stack)**

| Date | 03 October 2022 |
| --- | --- |
| Team ID | 591973 |
| Project Name | Project - Crime Vision: Advanced Crime Classification With Deep Learning |
| Maximum Marks | 4 Marks |

**Technical Architecture:**

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

| S.No | Component | Description | Technology |
| --- | --- | --- | --- |
| 1. | User Interface | How user interacts with the application (e.g., Web UI, Mobile App, Chatbot) | HTML, CSS, JavaScript / Angular Js / React Js |
| 2. | Application Logic-1 | Logic for a process in the application | Java / Python |
| 3. | Application Logic-2 | Logic for a process in the application | IBM Watson STT service |
| 4. | Application Logic-3 | Logic for a process in the application | IBM Watson Assistant |
| 5. | Database | Data Type, Configurations, etc. | MySQL, NoSQL, etc. |
| 6. | Cloud Database | Database Service on Cloud | IBM DB2, IBM Cloudant, etc. |
| 7. | File Storage | File storage requirements | IBM Block Storage or Other Storage Service or Local Filesystem |
| 8. | External API-1 | Purpose of External API used in the application | IBM Weather API, etc. |
| 9. | External API-2 | Purpose of External API used in the application | Aadhar API, etc. |
| 10. | Machine Learning Model | Purpose of Machine Learning Model | Object Recognition Model, etc. |
| 11. | Infrastructure (Server/Cloud) | Application Deployment on Local System / Cloud | Local, Cloud Foundry, Kubernetes, etc. |

**Table-2: Application Characteristics:**

| S.No | Characteristics | Description | Technology |
| --- | --- | --- | --- |
| 1. | Open-Source Frameworks | List the open-source frameworks used | Technology of Opensource framework |
| 2. | Security Implementations | List all the security / access controls implemented, use of firewalls, etc. | e.g., SHA-256, Encryptions, IAM Controls, OWASP, etc. |
| 3. | Scalable Architecture | Justify the scalability of architecture (3 – tier, Micro-services) | Technology used |
| 4. | Availability | Justify the availability of the application (e.g., use of load balancers, distributed servers, etc.) | Technology used |
| 5. | 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:**

[C4 Model](https://c4model.com/)

[IBM Patterns](https://developer.ibm.com/patterns/online-order-processing-system-during-pandemic/)

[IBM Cloud Architecture](https://www.ibm.com/architectures/hybrid)

[AWS Architecture](https://aws.amazon.com/architecture/?cards-all.sort-by=item.additionalFields.sortDate&cards-all.sort-order=desc&awsf.content-type=*all&awsf.methodology=*all&awsf.tech-category=*all&awsf.industries=*all&awsf.business-category=*all)

[How to Draw Useful Technical Architecture Diagrams](https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d)