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

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|---|---|
| **Date** | 20.October 2022 |
| **Team ID** | *PNT2022TMID49976* |
| **Project Name** | Natural disaster intensity analysis and classification using AI |
| **Maximum Marks** | 4 Marks |

**Technical Architecture:**

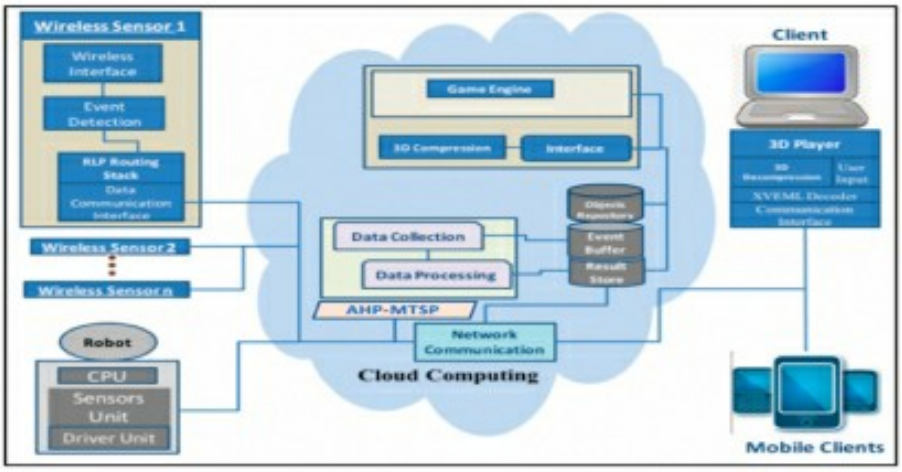


**Table-1: Components &Technologies:**

| S.NO | Component | Description | Technology |
|---|---|---|---|
| 1. | User Interface | Web UI,Node -RED,MIT app | IBM Platform , IBM Node red,IBMCloud |
| 2. | Application Logic-1 | Create IBM Watson Platform and create node-red service | IBM Watson,IBM Cloudant service,IBM node-red |
| 3. | Application Logic-2 | Develop Python script to publish and subscribe to IBM a i platform | Python |
| 4. | Application Logic-3 | Build a web application using node-red service | IBM Node-Red |
| 5. | Database | Data Type,Configurations etc. | MySQL |
| 6. | Cloud Database | Database service on cloud | IBM DB2,IBM Cloudant |
| 7. | File Storage | Developing mobile application to store and receive the sensors information and to react accordingly | Web UI, Python |
| 8. | External API-1 | Using this we can monitor the temperature parameters of the hazardous areas in industrial plants. | IBM Temperature Monitoring API |
| 9. | External API-2 | Using this smart beacon devices which will be broadcasting the temperature of that particular area. | IBM sensors |
| 10. | Machine Learning Model | Using this we can derive the object recognition model | Object Recognition Model |
| 11. | Infrastructure (Server/Cloud) | Application Deployment on Local System / Cloud Server Configuration | IBM Cloudant,IBM IOT Platform |

**Table-2: Application Characteristics:**

| S.NO | Characteristics | Description | Technology |
|---|---|---|---|
| 1. | Open source Frameworks | MIT app Inventor | MIT License |
| 2. | Security Implementation | IBM Services | Encryptions,IBM Controls |
| 3. | Scalable Architecture | Sensor-IOT Cloud Based Architecture | Cloud computing and AI |
| 4. | Availability | Mobile, Laptop | MIT App |
| 5. | Performance | Detects the Temperature,Radiation | Sensors |