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

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|---|---|
| Date | 31 October 2022 |
| Team ID | PNT2022TMID12773 |
| Project Name | Detecting Parkinson’s Disease using Machine Learning |
| Maximum Marks | 4 Marks |

**Application: Detecting Parkinson’s Disease using Machine Learning**

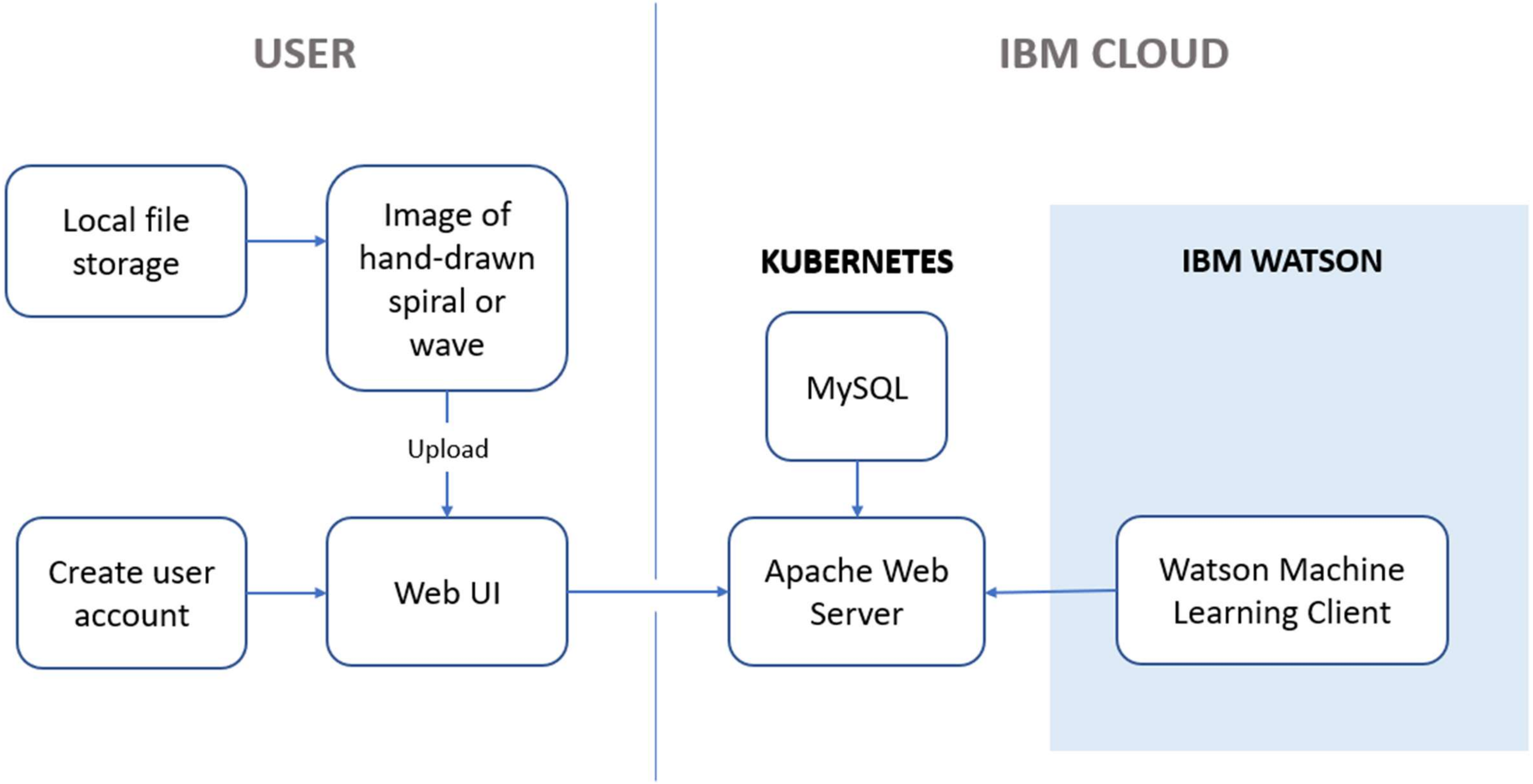

**Table-1 : Components & Technologies:**

| S.No | Component | Description | Technology |
|---|---|---|---|
| 1. | User Interface | User interacts with a Web UI | HTML, Flask framework |
| 2. | Application Logic - 1 | Logic for a process in the application | Python (Flask) |
| 3. | Application Logic - 2 | To execute the machine learning model on cloud | IBM Watson Machine Learning Client |
| 4. | Cloud Database | Database Service used for storing user data, images uploaded | MySQL |
| 5. | File Storage | To store the image file of the spiral / wave drawing | Local Filesystem |
| 6. | Machine Learning Model | To detect whether the image is drawn by a person with Parkinson's or not | Random Forest Classifier |
| 7. | Infrastructure | Application Deployment on Cloud | Kubernetes |

**Table-2: Application Characteristics:**

| S.No | Characteristics | Description | Technology |
|---|---|---|---|
| 1. | Open-Source Frameworks | List the open-source frameworks used | Flask, Pickle, Sklearn, OpenCV |
| 2. | Scalable Architecture | Cloud native applications are hyper-scalable | IBM Watson, Kubernetes |
| 3. | Availability | Using containerized workloads, scales clusters | Kubernetes |
| 4. | Performance | Serve upto 100 requests per sec, Use of kubeCDN | Kubernetes |

**References:**

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