

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

| | |
|---------------|---|
| Date | 03 October 2022 |
| Team ID | PNT2022TMID35818 |
| Project Name | A Gesture - Based Tool for Sterile Browsing of Radiology Images |
| Maximum Marks | 4 Marks |

Technical Architecture:

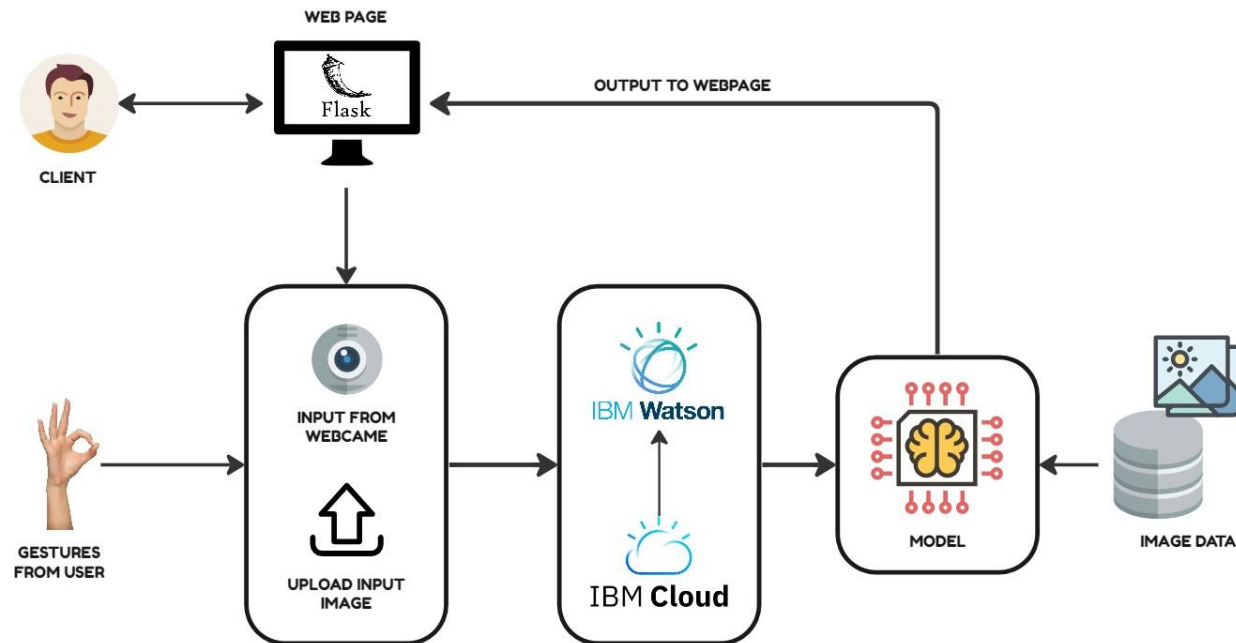


Table-1 : Components & Technologies:

| S.No | Component | Description | Technology |
|-------------|---------------------------------|--|--|
| 1. | User Interface | User interacts good and easy with application | HTML, CSS |
| 2. | Application Logic-1 | User Input feed | Java / Python |
| 3. | Application Logic-2 | Creating Model | IBM Watson STT service |
| 4. | Application Logic-3 | Getting Correct Hand Gestures | 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 and storage in clouds | IBM Block Storage or Other Storage Service or Local Filesystem |
| 8. | Machine Learning Model | Purpose of Machine Learning Model | Object Recognition Model using CNN, etc. |
| 9. | Infrastructure (Server / Cloud) | Application Deployment on Local System / Cloud Local Server Configuration: Using Flask Cloud Server Configuration : Using IBM Waston | Python Flash, IBM cloud |

Table-2: Application Characteristics:

| S.No | Characteristics | Description | Technology |
|------|--------------------------|--|-----------------------------|
| 1. | Open-Source Frameworks | Open-source frameworks used is IBM Watson | IBM Watson |
| 2. | Security Implementations | Certified Watson assistant for Encrypted file systems & Key management system | IBM Watson |
| 3. | Scalable Architecture | 1. Web application Dynamic Updating 2. Correct Gesture detection 3. Feedback corrections 4. Integration of new features for gesture recognition | Python, IBM Watson |
| 4. | Availability | Application is available is user all time | IBM Watson Cloud assistance |
| 5. | Performance | Good Performance automation process with IBM Watson | IBM Watson Assistance |