Visualizing and Predicting Heart Diseases with an Interactive Dash Board

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Technical Architecture

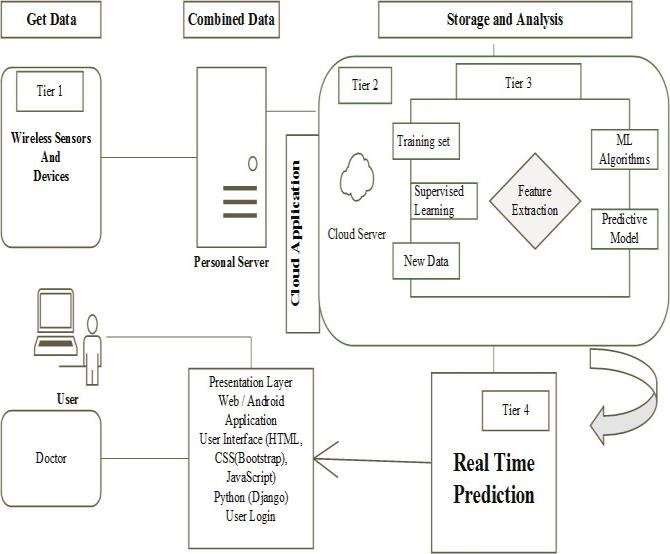


Table-1 : Components & Technologies:

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **Component** | **Description** | **Technology** |
| 1. | User Interface | How user interacts with application e.g. Web UI, Mobile App, etc. | HTML, CSS, Python etc. |
| 2. | Application Logic-1 | Logic for a process in the application | Python |
| 3. | Application Logic-2 | Logic for a process in the application | IBM Cognos Analytics |
| 4. | Application Logic-3 | Logic for a process in the application | IBM Watson Assistant |
| 5. | Database | Data Type, Configurations etc. | MySQL, etc. |
| 6. | Cloud Database | Database Service on Cloud | IBM DB2, IBM Pak etc. |
| 7. | File Storage | File storage requirements | Use Professional Records Storage, IBM Block Storage or Other Storage  Services. |
| 8. | External API | Purpose of External API used in the application | IBM SPSS, etc. |
| 9. | Infrastructure (Server / Cloud) | Application Deployment on Local System / Cloud  Local Server Configuration: Cloud Server Configuration : | Personal Server, IBM Cloud Server etc. |

Table-2: Application Characteristics:

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **Characteristics** | **Description** | **Technology** |
| 1. | Open-Source Frameworks | Open-source frameworks used | Technology of Opensource framework – Django or Flask in Python. |
| 2. | Security Implementations | Security / access controls implemented, use of firewalls etc. | e.g. Privacy - Encryptions, IBM Security Manager etc. |
| 3. | Scalable Architecture | Scalability of architecture (3 – tier, Micro- services) | Technology used - IaaS, PaaS, SaaS (IBM Cloud). |
| 4. | Availability | Availability of application | Technology used - The Availability of getting used to this software or product  design is through by accessing IBM cognos Analytics and  IBM cloud. |
| 5. | Performance | Performance of the application | Technology used - The performance should be fast relaying. This prediction  system should be made available in cloud to ensure better  accessibility and setting a milestone in providing good  quality affordable healthcare. |

References : https://[www.ibm.com/products/cognos-analytics](http://www.ibm.com/products/cognos-analytics)

https://cloud.ibm.com/catalog/services/watson-assistant https://[www.ibm.com/in-en/cloud-paks](http://www.ibm.com/in-en/cloud-paks) https://[www.ibm.com/cloud](http://www.ibm.com/cloud)