

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

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| Date | 22 October 2022 |
| Team ID | PNT2022TMID27073 |
| Project Name | Project – Data Analytics for Hospital Health Care |
| Maximum Marks | 4 Marks |

TEAM LEAD : MADHUMITHA.P

MEMBERS : NITHYA.R

RISHNAKANTH.B

KISHORE.A

TECHNICAL ARCHITECTURE

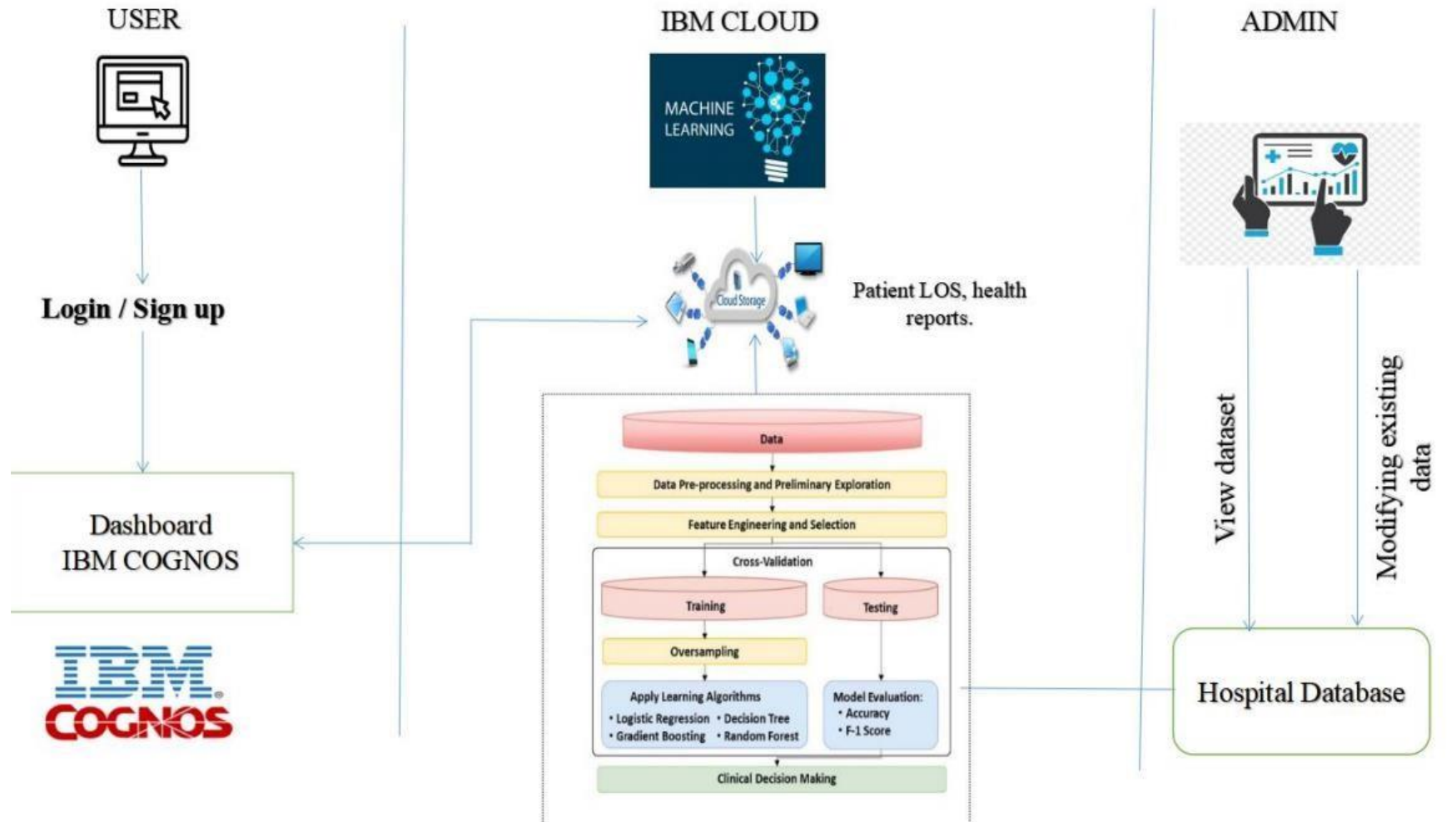


Table-1 : Components & Technologies:

| S.No | Component | Description | Technology |
|------|-------------------------------|--|--|
| 1. | User Interface | How user interacts with application e.g. Web UI, Mobile App, Chatbot etc. | HTML, CSS, JavaScript |
| 2. | Application Logic-1 | Logic for a process in the application | Python |
| 3. | Application Logic-2 | Logic for a process in the application | IBM Watson Assistance |
| 4. | Database | Data Type, Configurations etc | MySQL |
| 5. | Cloud Database | Database Service on Cloud | IBM Cloud etc. |
| 6. | File Storage | File storage requirements | IBM Block Storage or Other Storage Service or Local Filesystems. |
| 7. | External API-1 | Purpose of External API used in the application | Aadhar API, etc. |
| 8. | Machine Learning Model | Purpose of Machine Learning Model | Regression Model, etc. |
| 9. | Infrastructure (Server/Cloud) | Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration: | Local, Cloud Foundry, etc. |

Table-2: Application Characteristics:

| S.No | Characteristics | Description | Technology |
|-------------|--------------------------|---|--|
| 1. | Open-Source Frameworks | List the open-source frameworks used | Python |
| 2. | Security Implementations | List all the security / access controls implemented, use of firewalls etc. | Encryption, Firewall, Antivirus. |
| 3. | Scalable Architecture | Justify the scalability of architecture (3 – tier, Micro-services) | Support higher workloads. |
| 4. | Availability | Justify the availability of application (e.g. use of load balancers, distributed servers etc.) | High availability enables your IT infrastructure to continue functioning even when some of its components fail. |
| 5. | Performance | Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc. | A field of practice that uses various tools, process, and ideas in a scientific manner to improve the desired outcomes of individuals and organizations. |

