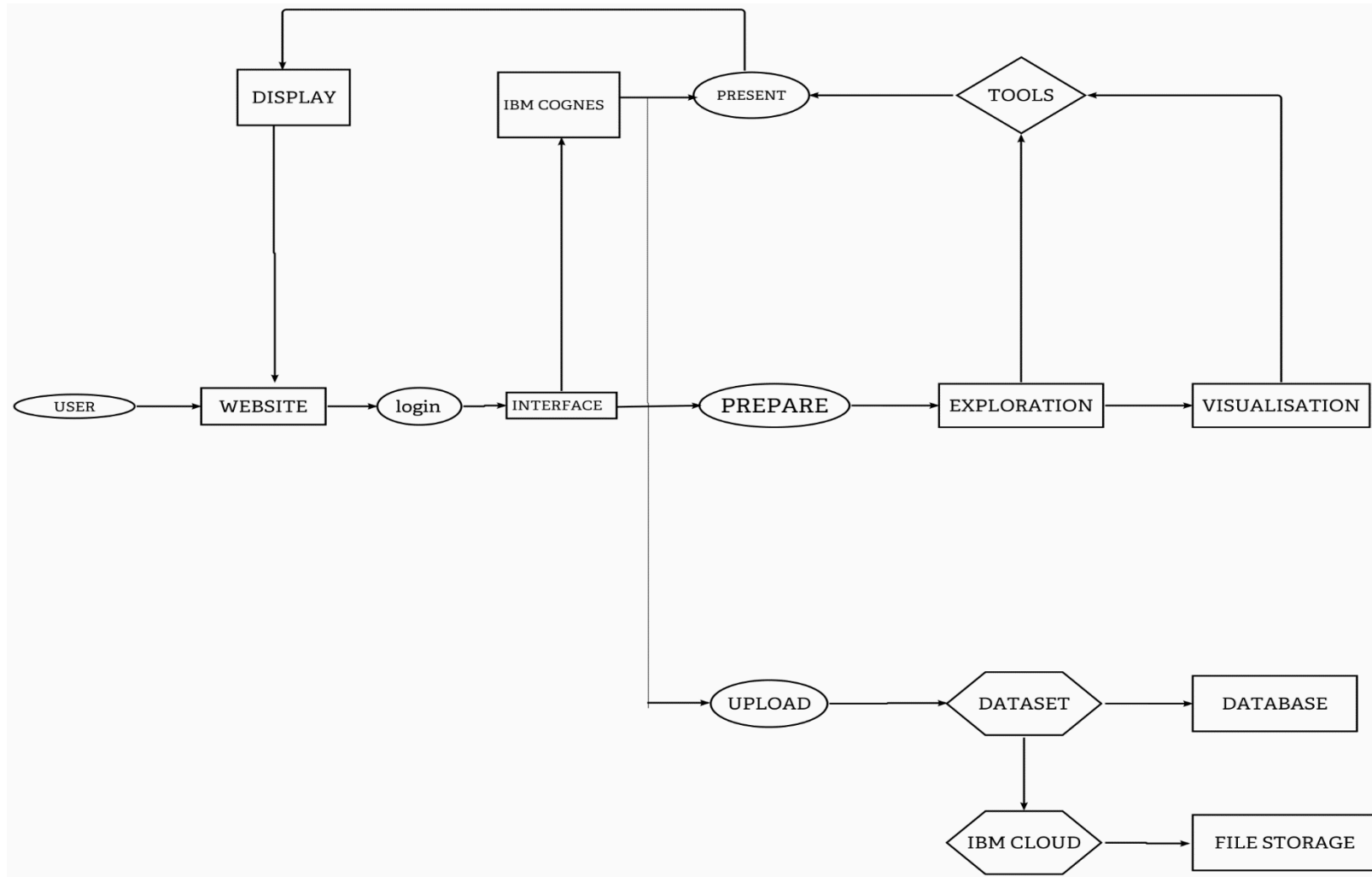


**Project Design Phase-II**  
**Technology Architecture**

|               |   |
|---------------|---|
| Date          | 03 October 2022                           |
| Team ID       | PNT2022TMID17917                          |
| Project Name  | Analytics for Hospitals' Health-Care Data |
| Maximum Marks | 4 Marks                                   |

## 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, Java, PHP   |
| 2.   | Application Logic-1        | Logging in as a user or patient in the application.  | Python   |
| 3.   | Application Logic-2        | Logging in as an admin in the application.   | IBM Watson STT service   |
| 4.   | Database                   | All the data about the patient like disease, address, Details and etc.,                            | MySQL  |
| 5.   | Cloud Database             | Database Service on Cloud  | IBM Cloud  |
| 6.   | File Storage               | IBM Watson cloud is used for storage, Cloud  | IBM Block Storage or Other Storage Service or Local Filesystem |
| 7.   | Machine Learning Model     | Machine Learning Models are used to predict the length of the stay of patient using available data | Logistic Regression, Decision Tree, SVM,                       |
| 8.   | Uploading and Presentation | Using Exploration and Visualization  | IBM Cognos Analytics   |

**Table-2: Application Characteristics:**

| S.No | Characteristics          | Description  | Technology                       |
|------|--------------------------|--|----------------------------------|
| 1.   | Open-Source Frameworks   | Numpy,Pandas,Scikit,Matplotlib.  | Python, IBM Cloud                |
| 2.   | Security Implementations | security / access controls implemented, use of firewalls etc.  | Authentication and Authorization |
| 3.   | Scalable Architecture    | 3-tier Architecture can be implemented so that the project can be worked by splitting up into 3 tiers namely presentation tier, application tier, data tier. | 3 tier                           |
| 4.   | Availability             | The application will be for 24/7. It can be used anywhere using smart devices.   | HTML, CSS, Java and IBM Cloud    |