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

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|---|---|
| Date | 15 October 2022 |
| Team ID | PNT2022TMID23382 |
| Project Name | Project – Visualizing and predicting heart disease with an interactive dashboard |
| Maximum Marks | 4 Marks |

**Technical Architecture:**

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

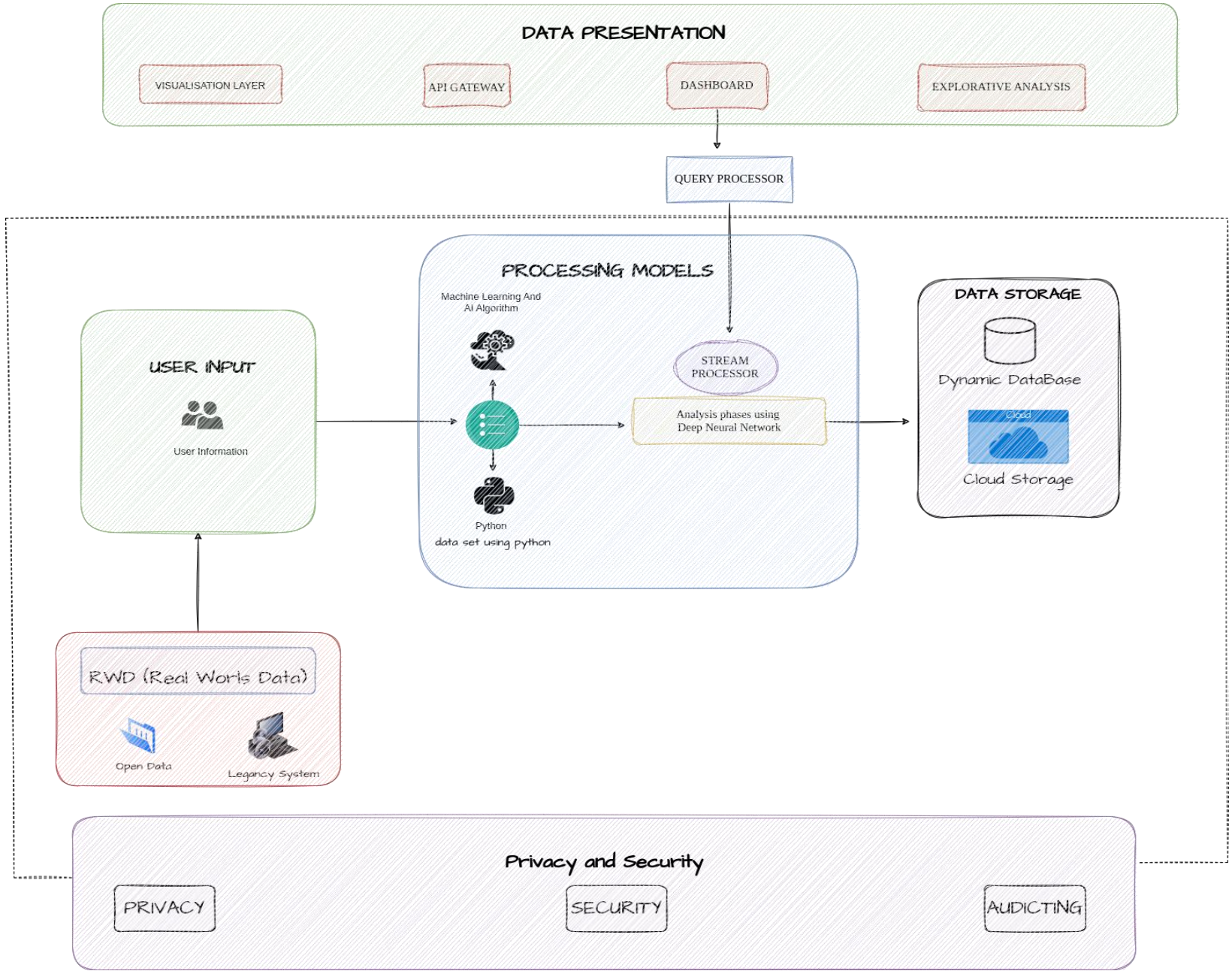
DATA PRESENTATION
VISUALISATION LAYER
API GATEWAY
DASHBOARD
EXPLORATIVE ANALYSIS
QUERY PROCESSOR
PROCESSING MODELS
Machine Learning And
AI Algorithm
STREAM
PROCESSOR
Analysis phases using
Deep Neural Network
Python
data set using python
USER INPUT
User Information
DATA STORAGE
Dynamic DataBase
Cloud
Cloud Storage
RWD (Real Worls Data)
Open Data
Legancy System
Privacy and Security
PRIVACY
SECURITY
AUDICTING

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

| S. No | Component | Description | Technology |
|---|---|---|---|
| 1. | User Interface | Most important and critical aspect for a user to enter the clinical data analyze the result in the form of visualizations. | IBM Dashboard |
| 2. | Application Logic-1 | The raw data is collected from the user in this format | Excel/CSV |
| 3. | Application Logic-2 | Build conversational interfaces into any application, device, or channel. | IBM Watson Assistant |
| 4. | File Storage | The data is saved in files and folders, and presented to both the system storing it and the system retrieving it in the same format. | Local Filesystem, Cloud |
| 5. | Deep Neural Network | This algorithm is used prediction | Python |
| 6. | Machine Learning Model | Machine learning technique is used to forecast target value based solely on a known history of target values. This is used for predicting the future needs. | Deep Neural Network (Python) |

**Table-2: Application Characteristics:**

| S. No | Characteristics | Description | Technology |
|---|---|---|---|
| 1. | Security Implementations | Every user can access the website only if they possess the password. The database is secured with encryption techniques which provides high levels of security | IAM Controls, IBM Cognos |
| 2. | Scalable Architecture | The project allows multiple users to handle the data at the same time. It is highly scalable since adding features and making advancements in the website is uncomplicated | IBM Cognos |
| 3. | Availability | The project is platform independent. It runs perfectly on almost every platform. | IBM Cognos |
| 4. | Performance | The project must respond quickly to the user's actions or even if the user has to wait the waiting period must be short. | IBM Cognos |