

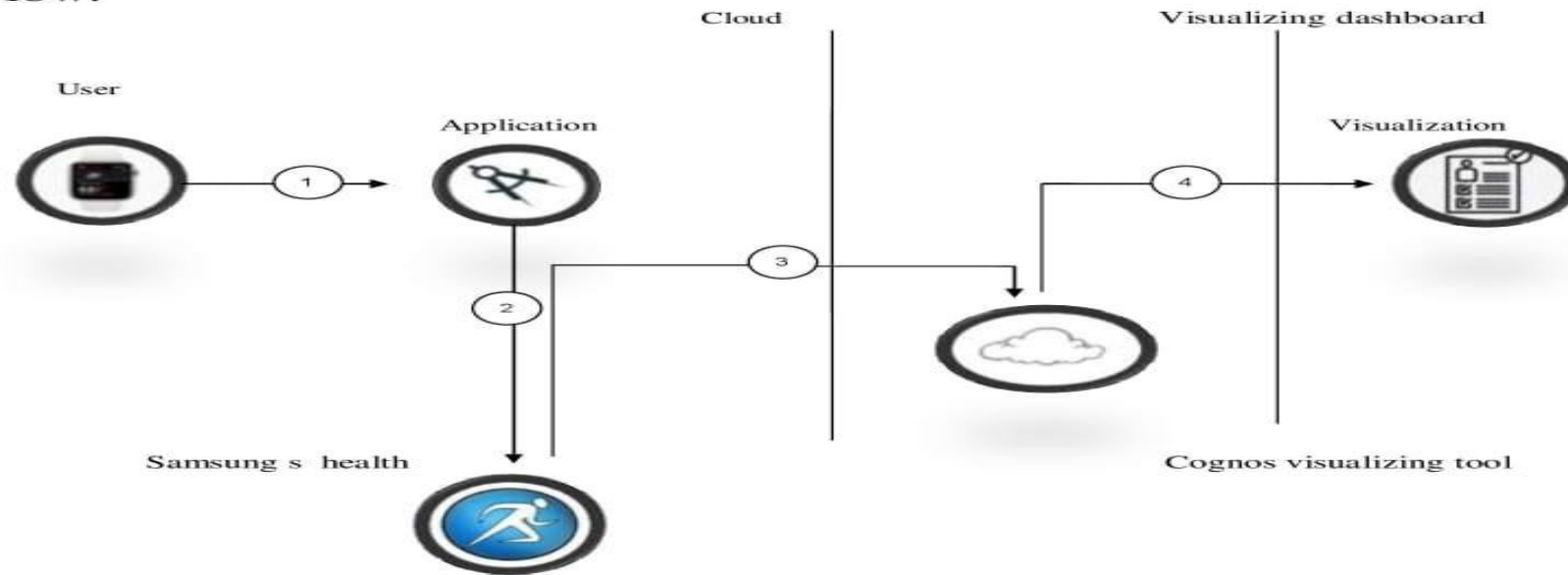
## Project Design Phase-II Technology Stack (Architecture & Stack)

|               |  |
|---------------|--|
| Date          | 21 October 2022  |
| Team ID       | PNT2022TMID50017   |
| Project Name  | Visualizing And Predicting Heart Diseases With An Interactive Dash Board |
| Maximum Marks | 4 Marks  |

### Technical Architecture:

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

### Flow:



**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 / Angular Js / React Js 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 Watson, IBM Cognos Analytics  |
| 4.   | Application Logic-3             | Logic for a process in the application  | IBM Cognos Analytics  |
| 5.   | Database                        | Data Type, Configurations etc.  | MySQL, NoSQL, Cloudant DB ,OLAP   |
| 6.   | Cloud Database                  | Database Service on Cloud   | IBM DB2, IBM Cloudant etc.  |
| 7.   | File Storage                    | File storage requirements   | IBM Block Storage or Other Storage Service or Local Filesystem                            |
| 8.   | External API-1                  | Purpose of External API used in the application   | IBM Watson API  |
| 9.   | Machine Learning Model          | Purpose of Machine Learning Model   | Regression Model, Classification Model, Clustering Model, Object Recognition Model, etc., |
| 10.  | Infrastructure (Server / Cloud) | Application Deployment on Local System / Cloud<br>Local Server Configuration:<br>Cloud Server Configuration : | Local, Cloud Foundry, Kubernetes, etc.  |

**Table-2: Application Characteristics:**

| S.No | Characteristics          | Description   | Technology                               |
|------|--------------------------|---|--|
| 1.   | Open-Source Frameworks   | Power BI is truly an interactive tool that gets connected with online platforms to fetch the data for you. With the connectors and pre-installed dashboards, Power BI can analyze the data and present visually creative reports by connecting with Google Analytics, Salesforce, and other important software. | Microsoft Power BI, IBM Cognos           |
| 2.   | Security Implementations | Authenticated users<br>Hosted on Cloud-based servers, it offers strong, multilayer security to all data exchanged, also remains protected from Cyber attacks  | IBM Cloud                                |
| 3.   | Scalable Architecture    | Support feature increase in throughput and able to handle data of any patient at any given point of time without affecting the stability.   | Cognos BI                                |
| 4.   | Availability             | Ensure that data is available to the end users, Reliable access to data.  | AWS, Cloud platforms, Microsoft Power BI |
| 5.   | Performance              | The process of quickly examining extremely large data sets to find insights. This is done by using the parallel processing of high performance computing to run powerful analytic software.   | IBM Cognos Analytics                     |