

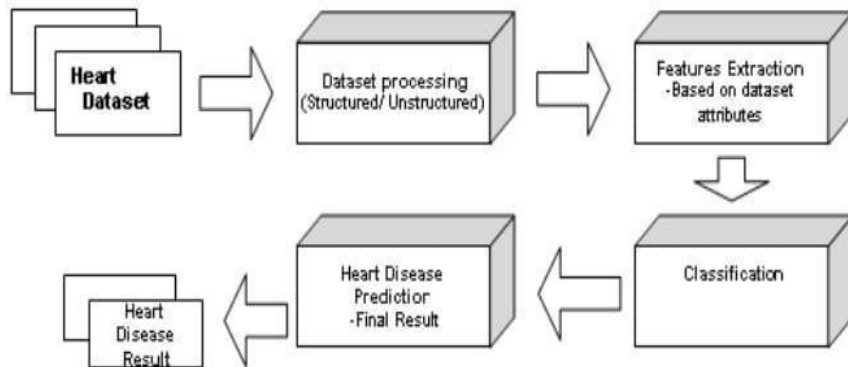
## Project Design Phase-II Technology Stack (Architecture & Stack)

|               |                                                                                    |
|---------------|------------------------------------------------------------------------------------|
| Date          | 14 Oct 2022                                                                        |
| Team ID       | PNT2022TMID08883                                                                   |
| Project Name  | Project - 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

### Example: Order processing during pandemics for offline mode



#### Guidelines:

1. Include all the processes (As an application logic / Technology Block)
2. Provide infrastructural demarcation (Local / Cloud)
3. Indicate external interfaces (third party API's etc.)
4. Indicate Data Storage components / services
5. Indicate interface to machine learning models (if applicable)

**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                                                                        | Java / Python                                                  |
| 3.   | Application Logic-2             | Logic for a process in the application                                                                        | IBM Watson STT service                                         |
| 4.   | Application Logic-3             | Logic for a process in the application                                                                        | IBM Watson Assistant                                           |
| 5.   | Database                        | Data Type, Configurations etc.                                                                                | MySQL, NoSQL, etc.                                             |
| 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 Weather API, etc.                                          |
| 9.   | External API-2                  | Purpose of External API used in the application                                                               | Aadhar API, etc.                                               |
| 10.  | Machine Learning Model          | Purpose of Machine Learning Model                                                                             | Object Recognition Model, etc.                                 |
| 11.  | 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:**

| <b>S.No</b> | <b>Characteristics</b>   | <b>Description</b>                                                                                                        | <b>Technology</b>                                   |
|-------------|--------------------------|---------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| 1.          | Open-Source Frameworks   | List the open-source frameworks used                                                                                      | Technology of Opensource framework                  |
| 2.          | Security Implementations | List all the security / access controls implemented, use of firewalls etc.                                                | e.g. SHA-256, Encryptions, IAM Controls, OWASP etc. |
| 3.          | Scalable Architecture    | Justify the scalability of architecture (3 – tier, Micro-services)                                                        | Technology used                                     |
| 4.          | Availability             | Justify the availability of application (e.g. use of load balancers, distributed servers etc.)                            | Technology used                                     |
| 5.          | Performance              | Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc. | Technology used                                     |