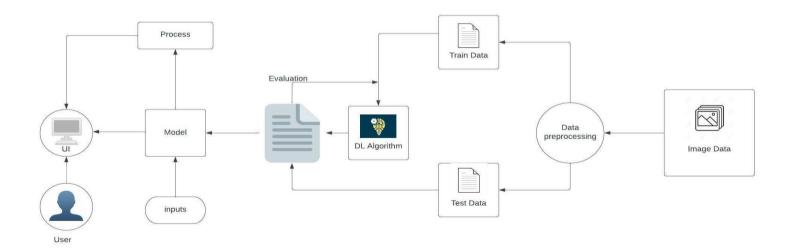
## Project Design Phase-II Technology Stack (Architecture & Stack)

## **Technical Architecture:**

The Deliverable shall include the architectural diagram as below and the information as per the table 1 & table 2



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

| S.No | Component              | Description  | Technology                            |  |
|------|------------------------|--|---------------------------------------|--|
| 1.   | User Interface         | How user interacts with application - Web UI   | HTML, CSS, JavaScript / React Js etc. |  |
| 2.   | Application Logic      | The ECG signal was transformed into a 2-D representation, a 2-D CNN algorithm was used for classification. | Python                                |  |
| 3.   | Database               | Data Type, Configurations etc.   | MySQL, MS SQL or oracle               |  |
| 4.   | Cloud Database         | Database Service on Cloud  | IBM DB2, IBM Cloudant etc.            |  |
| 5.   | File Storage           | File storage requirements  | Local Filesystem                      |  |
| 6.   | External API           | Defines communication between each requests and responses.   | Flask(python), Keras, Tensorflow      |  |
| 7.   | Machine Learning Model | Training and testing.  | CNN                                   |  |

**Table-2: Application Characteristics:** 

| S.No | Characteristics          | Description   | Technology                                  |
|------|--------------------------|---|---|
| 1.   | Open-Source Frameworks   | Open source software is that by which the source code or the base code is usually available for modification or enhancement.  | Flask(python)                               |
| 2.   | Security Implementations | By placing a filtration barrier between the targeted server and the attacker, the WAF is able to protect against attacks like cross site forgery, cross site scripting and SQL injection. | e.g.Encryptions, IAM Controls, SHA-256 etc. |
| 3.   | Scalable Architecture    | Does not affect the performance even though used by many users at the same time.  | Django or Flask                             |
| 4.   | Availability             | Anyone who is authorised.   | Django or Flask                             |
| 5.   | Performance              | Design consideration for the performance of<br>the application (number of requests per sec,<br>use of<br>Cache, use of CDN's) etc.  | NeoLoad                                     |