Functional requirements

- System shall predict presence of heart disease with the given symptom values provided by user.
- System shall save feedback about disease prediction from user.
- System shall maintain heart disease prediction results history of every user.
- User must Signup/Login before using main functionality of the system.
- Admin shall be able to add/Delete/Update user.
- Admin shall be able to Import/Delete/Update dataset.
- Admin shall be able train the model with the imported dataset.

Non Functional requirements

Non-functional requirements include requirements for performance, security and portability.

Performance requirements:

Since this program is going to be web-based, it needs a large server machine with high-speed(100mbs) internet connectivity. The server machine must have a powerful CPU and high-speed internet connectivity so it can accommodate multiple users concurrently and the storage space is the other performance requirement. Higher storage means more users and greater space per device, higher the storage higher performance. The user-side reliability requirement is that the web application must be designed as a lightweight web application so that it can operate on almost any network even with slower internet connections. Expected number of concurrent devices, application must be able to deal concurrently with 100 users. The system server also handles atleast 1000 client   at   any   time.

Security requirements:

Because this program is hosting on a cloud sever, all user information must be stored on the cloud sever. The user's workspace shall be accessible exclusively by means of user credentials that no other user can access the user's private data. User privileges are also limited in order to prevent users from damaging the system by the programs they run or by the commands the run on the terminal. Since all data is transmitted through the network, the system shall implement a tool for encryption and decryption that only the intended user can decode the data and work on the data by using   HTTPS   (HTTPS   is   a   combination   of   HTTP   with   SSL/TLS).

Portability requirements:

The main purpose of web-based IDE architecture is to improve software development framework portability. Application can run on a variety of platforms and variety of connection speeds to boost portability. As described in the section on performance requirements, code must be lightweight so it can run slow internet connectivity on the computer. Simple libraries and tools are to be used during development to keep the program lightweight. Portability also means running without any additional effort on most different platforms. To achieve this, web applications will be built using technology and tools provided by all common web browsers and operating systems like HTML5, JQuery, etc.

Supervisor Signature_____