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

Date	03 October 2022
Team ID	PNT2022TMID21560
Project Name	Visualizing and Predicting Heart Diseases with an Interactive Dashboard Technology
Maximum Marks	4 Marks

Technical Architecture:

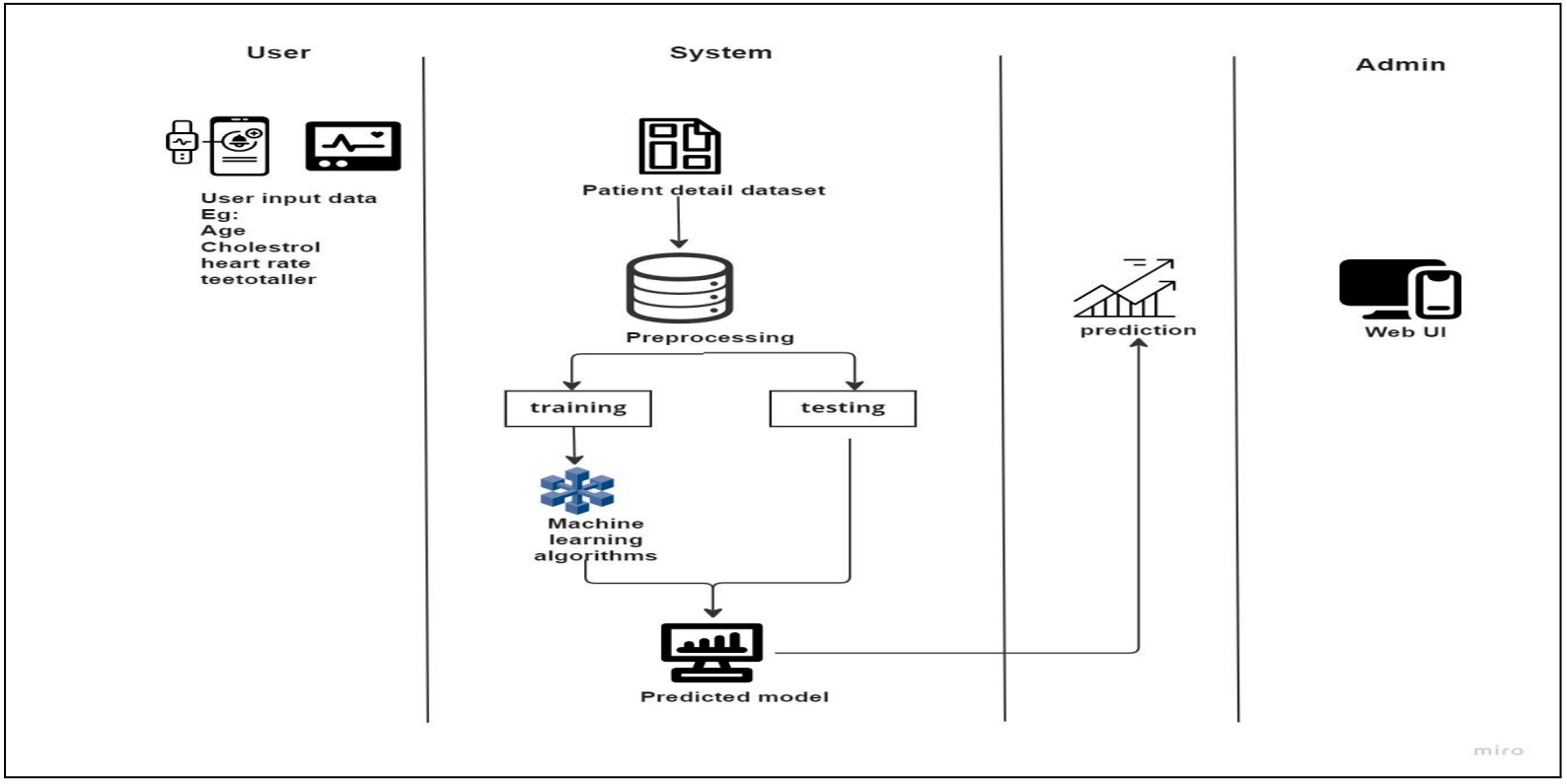

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The user interacts with the application through web UI.	HTML, CSS, python
2.	Application Logic-1	Logic for login in the application	Python
3.	Application Logic-2	Logic for registration in the application	Python
4.	Application Logic-3	Logic for a process in the application	IBM Watson Assistant
5.	Cloud Database	Database Service on Cloud	IBM DB2
6.	File Storage	To store files such as prediction report	Local Filesystem
7.	Data Analytics Model	Predictive modeling solutions are a form of data-mining technology that works by analyzing historical and current data and generating a model to help predict future outcomes.	Predictive modeling

8.	Infrastructure (Server / Cloud)	Application Deployment on Local System Local Server Configuration: built-in flask web server	Local web server

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Flask	Micro web framework written in Python
2.	Security Implementations	Basic HTTP authentication, Session based authentication, User Registration, Login Tracking	Flask Security
3.	Scalable Architecture	Size is everything, and Flask's status as a microframework means that you can use it to grow a tech project such as a web app incredibly quickly. Its simplicity of use and few dependencies enable it to run smoothly even as it scales up and up.	Flask

4.	Availability	Higher compatibility with latest technologies and allows customization	Flask
5.	Performance	➔ Integrated support for unit testing. ➔ RESTful request dispatching. ➔ Uses Jinja templating. ➔ Support for secure cookies (client side sessions) 100% WSGI 1.0 compliant.	Flask

References:

https://c4model.com/

https://developer.ibm.com/patterns/online-order-processing-system-during-pandemic/

https://www.ibm.com/cloud/architecture

https://aws.amazon.com/architecture

https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d