Project Design Phase-II
Data Flow Diagram & User Stories
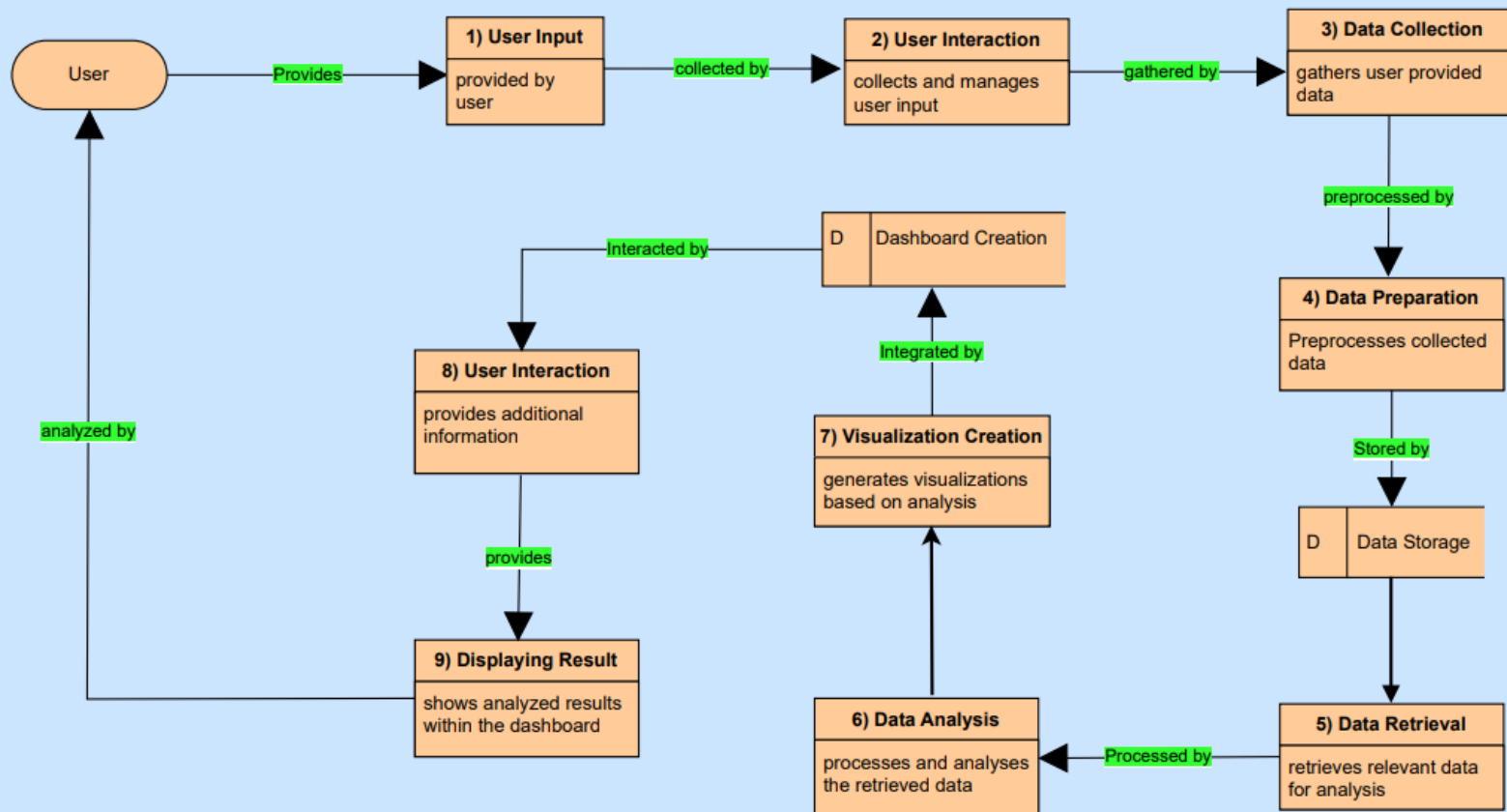
Date	23 October 2023
Team ID	PNT2023TMID 591217
Project Name	Project - Visualizing and Predicting Heart Diseases With An Interactive Dash Board
Maximum Marks	4 Marks

Data Flow Diagrams:

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

Data Flow Diagram

Visualizing and predicting heart diseases
with an interactive dashboard

User — Provides → **1) User Input** (provided by user) — collected by → **2) User Interaction** (collects and manages user input) — gathered by → **3) Data Collection** (gathers user provided data)

3) Data Collection — preprocessed by → **4) Data Preparation** (Preprocesses collected data) — Stored by → **D | Data Storage**

D | Data Storage → **5) Data Retrieval** (retrieves relevant data for analysis) — Processed by → **6) Data Analysis** (processes and analyses the retrieved data) → **7) Visualization Creation** (generates visualizations based on analysis) — Integrated by → **D | Dashboard Creation**

D | Dashboard Creation — Interacted by → **8) User Interaction** (provides additional information) — provides → **9) Displaying Result** (shows analyzed results within the dashboard) — analyzed by → User

User Stories

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Patient (Mobile user)	Mobile App Version	USN-1	As a patient, I want a user-friendly mobile app version of the dashboard, so I can monitor my health and receive alerts on the go.	The mobile app is available for both iOS and Android, provides login, a simplified mobile user interface, and access to real-time alerts and health data.	Medium	Future release
Data Scientist	Access to Anonymized Patient Data for Research	USN-2	As a data scientist, I need access to anonymized patient data for research purposes, so I can contribute to advancements in heart disease prediction and management.	Data scientists can access anonymized patient data securely, complying with privacy regulations and utilizing clear documentation.	Medium	Ongoing
Healthcare Provider (Cardiologist)	View Comprehensive Patient Data	USN-3	As a cardiologist, I need to access a comprehensive view of my patients' medical history, lab results, and EKG data in one place, so I can diagnose and treat heart diseases more effectively.	I can easily switch between patients within the dashboard without losing my current view.	High	Initial release
Healthcare Provider (Nurse)	Real-Time Alerts for Patient Monitoring	USN-4	As a nurse, I want to receive real-time alerts when a patient's health metrics indicate a sudden change, so I can provide immediate care and intervention.	Nurses receive real-time alerts when patient health metrics deviate significantly, with alerts	High	Initial release

				containing necessary patient information.		
Healthcare Administrator	System Performance Monitoring	USN-5	As a healthcare administrator, I want to monitor the dashboard's performance, usage, and compliance with data protection regulations, so I can ensure the system operates efficiently and securely.	Healthcare administrators can monitor system performance, usage, and data protection compliance through a dedicated admin interface.	Medium	Initial release
Patient	Secure Data Sharing	USN-6	As a patient, I want to securely share my data with my healthcare provider through the dashboard, so they can monitor my health and provide guidance even if I'm not physically in their office.	Patients can securely share their health data with authorized healthcare providers, ensuring security, privacy, and patient control.	High	Initial release
Patient	Discussion Forums and Community	USN-7	As a patient, I'd like to join discussion forums or communities within the dashboard where I can connect with others managing heart diseases, share my experiences, and gather valuable support and advice.	Users can join and participate in discussion forums and communities on heart disease topics within the dashboard.	Low	Future release
Hospital Administrator	Monitoring	USN-8	As a hospital administrator, I want to monitor the overall patient load and bed availability, so I can allocate resources effectively.	Hospital Administrator can see the room availabilities for patients	Medium	Initial release

| Patient | Personal Health care appointments | USN-9 | As a patient, I want to schedule appointments with my healthcare provider through the dashboard, making it convenient and easy to manage my healthcare. | Patient can get essential tips from my health care mentor. | Medium | Ongoing |