Project Design Phase-II
Data Flow Diagram & User Stories

Date	15 November 2022
Team ID	PNT2022TMID34634
Project Name	Classification of Arrhythmia by Using Deep Learning with 2-D ECG Spectral Image
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.
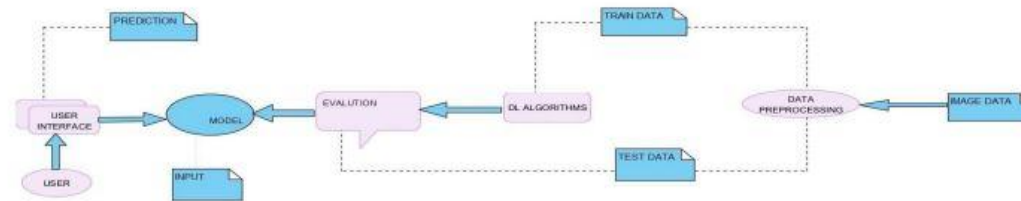
User Stories

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile/ Web)	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	I can access the site.	Medium	Sprint-4
Customer (Mobile/ Web)		USN-2	As a user, I will receive confirmation email once I have registered for the application	I can receive confirmation email & click confirm	Medium	Sprint-4
Customer (Mobile/ Web)	Model Training	USN-3	As a user, I want the ML model to be as accurate as possible.	High accuracy on the training set	High	Sprint-2
Customer (Mobile/ Web)		USN-4	As a user, I want quality data to be collected for the purposes of training the model. Also, image processing methods must be employed to pre-process the dataset.	Ensure no class imbalance exists and the dataset properly quantifies pattern amongst the different classes of images.	High	Sprint-2
Customer (Mobile/ Web)	Login	USN-5	As a user, I can log into the application by entering email & password.	Successful login upon entering the correct credentials.	Medium	Sprint-4
Customer (Mobile/ Web)	Homepage	USN-6	As a user, the homepage must properly define the Arrhythmia, its causes and effects and understand how the application helps in solving the problem.	Thorough understanding of Arrhythmia, its types, and its side effects	High	Sprint-1
Customer (Mobile/ Web)	More Information Page	USN-7	As a user, I must be able to comprehend all medical jargon related to Arrhythmia such as ECG, Coronary Heart Disease, Cardiomyopathy and its types.	In depth knowledge of medical terms and being capable of explaining to a layman	High	Sprint-1
Customer (Mobile/ Web)	Prediction Page	USN-8	As a user, I must be able to upload the ECG image for prediction.	Extremely high accuracy on the samples for the test set.	High	Sprint-3
Customer (Mobile/ Web)	Results Page	USN-9	As a user, I must be able to view the results of the classification. Also, I must also receive additional information about the type of arrhythmia.	Precise information about the types of diseases.	High	Sprint-3
Customer (Mobile/ Web)	Contact Information circulation	USN-10	As a user, I must be directed to further sources of help which would help in the treatment process via my e-mail.	Verified sources such as specialist doctors, hospitals, grants etc. provided	Medium	Sprint-3

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile/ Web)	Hosting	USN-11	As a user, it must be accessible on a single website for both mobile, PC users.	Clear UI and good UX for all supported devices.	Medium	Sprint-4