Project Planning Phase

Project Planning Template (Product Backlog, Sprint Planning, Stories, Story points)

Date	22 October 2022
Team ID	PNT2022TMID27741
Project Name	Classification Of Arrhythmia by Using Deep Learning With 2-D ECG Spectral Image Representation
Maximum Marks	8 Marks

Product Backlog, Sprint Schedule, and Estimation (4 Marks)

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Download The Dataset	USN-1	We can download the Dataset contains Six classes	1	Low	Shruthi.I Chelsia Stella.P
Sprint-1	Import The ImageDataGenerator Library	USN-2	We can import ImageDataGenerator	1	Low	Shruthi.I Chelsia Stella.P
Sprint-1	Configure ImageDataGenerator class	USN-3	We can configure the ImageDataGenerator class	1	Low	Shakthi.S Lavanya.G Chelsia Stella.P

Sprint-2	Apply the ImageDataGenerator	USN-4	We can apply ImageDataGenerator to train dataset	2	Medium	Lavanya.G Shruthi.I

Sprint	**Functional Requirement (Epic)**	**User Story Number**	**User Story / Task**	**Story Points**	**Priority**	**Team Members**
	functionality to Trainset and Dataset					Chelsia Stella.P
Sprint-1	Import Libraries	USN-5	We can import required Libraries	1	Low	Chelsia Stella.P
Sprint-1	Initialize the Model	USN-6	Initializing the Image recognition model	2	Medium	Shakthi.S Shruthi.I
Sprint-4	Adding CNN layer	USN-7	We can add Convolutional Neural Network (CNN) used for image/object recognition and classification	4	High	Shakthi.S Chelsia Stella.P
Sprint-4	Adding Dense Layer	USN-8	We can add Dense Layer in which each neuron receives input from all the neurons of previous layer	4	High	Shakthi.S Lavanya.G Chelsia Stella.P
Sprint-4	Configure The Learning Process	USN-9	We can configure The Learning process which is a method, mathematical logic or algorithm that improves the network's performance and/or training time.	4	High	Shakthi.S Lavanya.G Shruthi.I Chelsia Stella.P

Sprint-3	Train the Model	USN-10	We can train our model with our image dataset. Fit generator functions used to train a deep learning neural network	3	High	Shakthi.S Chelsia Stella.P
Sprint-1	Save the Model	USN-11	We can save The model with .h5 extension	2	Medium	Shruthi.I Chelsia Stella.P
Sprint-2	Test the model	USN-12	We can Test the model through Loaded necessary libraries, the saved model	2	Medium	Shakthi.S Shruthi.I
Sprint	**Functional Requirement (Epic)**	**User Story Number**	**User Story / Task**	**Story Points**	**Priority**	**Team Members**
Sprint-3	Create Html files	USN-13	We use HTML to create the front-end part of the web page.	3	High	Shakthi.S Lavanya
Sprint-4	Build Python code	USN-14	We build the flask file ‘app.py’ which is a web framework written in python for server-side scripting.	4	High	Shruthi.I Chelsia Stella.P
Sprint-1	Run the App	USN-15	We can run the App	2	Medium	Shakthi.S Chelsia Stella.P
Sprint-2	Register IBM Cloud	USN-16	We can register IBM Cloud	2	Medium	Shakthi.S Chelsia Stella.P
Sprint-3	Train the model on IBM	USN-17	We can Train Out model on IBM	3	High	Shakthi.S Chelsia Stella.P

Project Tracker, Velocity & Burndown Chart: (4 Marks)

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	20	5 Days	24 Oct 2022	28 Oct 2022	20	28 Oct 2022
Sprint-2	20	5 Days	30 Oct 2022	04 Nov 2022	20	04 Nov 2022
Sprint-3	20	5 Days	06 Nov 2022	11 Nov 2022	20	11 Nov 2022
Sprint-4	20	5 Days	13 Nov 2022	18 Nov 2022	20	18 Nov 2022

Velocity:

To calculate the team's **average velocity (AV)** per iteration unit

$$Av = \frac{Sprint\ Velocity}{duration}$$

Where,

Average Velocity - Story points per day

Sprint duration - Number of days (Duration) for Sprints

Velocity - Points per Sprint

$$Av = \frac{20}{5} = 4$$

Average Velocity is **4** points per Sprint

Burndown Chart:

A burndown chart is a graphical representation of work left to do versus time. It is often used in agile software development methodologies such as Scrum . However, burn down charts can be applied to any project containing measurable progress over time.

Burndown Chart