Project Planning Phase

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

Date	18 October 2022
Team ID	PNT2022TMID09848
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)

Use the below template to create product backlog and sprint schedule

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	4	Low	Satyajit Samanta, Joydeep Panja, md.Irfan, Nitesh Kumar
Sprint-1	Import The ImageDataGenerator Library	USN-2	We can import ImageDataGenerator	4	Low	Satyajit Samanta, Joydeep Panja, md.Irfan, Nitesh Kumar
Sprint-1	Configure ImageDataGenerator class	USN-3	We can configure the ImageDataGenerator class	6	Medium	Satyajit Samanta, Joydeep Panja, md.Irfan, Nitesh Kumar

Sprint-1	Apply the ImageDataGenerator functionality to Train Set and Dataset	USN-4	We can apply ImageDataGenerator to train dataset	6	Medium	Satyajit Samanta, Joydeep Panja, md.Irfan, Nitesh Kumar
Sprint-2	Import Libraries	USN-5	We can import required Libraries	1	Low	Satyajit Samanta, Joydeep Panja, md.Irfan, Nitesh Kumar

Sprint	**Functional Requirement (Epic)**	**User Story Number**	**User Story / Task**	**Story Points**	**Priority**	**Team Members**
Sprint-2	Initialize the Model	USN-6	Initializing the Image recognition model	2	Medium	Satyajit Samanta, Joydeep Panja, md.Irfan, Nitesh Kumar
Sprint-2	Adding CNN layer	USN-7	We can add Convolutional Neural Network(CNN) used for image/object recognition and classification	3	High	Satyajit Samanta, Joydeep Panja, md.Irfan, Nitesh Kumar
Sprint-2	Adding Dense Layer	USN-8	We can add Dense Layer in which each neuron receives input from all the neurons of previous layer	2	High	Satyajit Samanta, Joydeep Panja, md.Irfan, Nitesh Kumar
Sprint-2	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	Satyajit Samanta, Joydeep Panja, md.Irfan, Nitesh Kumar

Sprint-2	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	4	High	Satyajit Samanta, Joydeep Panja, md.Irfan, Nitesh Kumar
Sprint-2	Save the Model	USN-11	We can save The model with .h5 extension	2	Medium	Satyajit Samanta, Joydeep Panja, md.Irfan, Nitesh Kumar
Sprint-2	Test the model	USN-12	We can Test the model through Loaded necessary libraries, the saved model	2	Medium	Satyajit Samanta, Joydeep Panja, md.Irfan, Nitesh Kumar
Sprint-3	Create Html files	USN-13	We use HTML to create the front end part of the web page.	8	High	Satyajit Samanta, Joydeep Panja, md.Irfan, Nitesh Kumar
Sprint-3	Build Python code	USN-14	We build the flask file ‘app.py’ which is a web framework written in python for server-side scripting.	8	High	Satyajit Samanta, Joydeep Panja, md.Irfan, Nitesh Kumar
Sprint	**Functional Requirement (Epic)**	**User Story Number**	**User Story / Task**	**Story Points**	**Priority**	**Team Members**
Sprint-3	Run the App	USN-15	We can run the App	4	Medium	Satyajit Samanta, Joydeep Panja, md.Irfan, Nitesh Kumar

Sprint-4	Register in IBM Cloud	USN-16	We can register in the cloud	8	Medium	Satyajit Samanta, Joydeep Panja, md.Irfan, Nitesh Kumar
Sprint-4	Train the model on IBM	USN-17	We can train the model on IBM	12	High	Satyajit Samanta, Joydeep Panja, md.Irfan, Nitesh Kumar

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	6 Days	24 Oct 2022	29 Oct 2022	20	29 Oct 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	20	05 Nov 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	20	12 Nov 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	20	19 Nov 2022

Velocity:

Imagine we have a 10-day sprint duration, and the velocity of the team is 20 (points per sprint). Let’s calculate the team’s average velocity (AV) per iteration unit (story points per day)

$$AV = \frac{sprint\ duration}{velocity} = \frac{20}{10} = 2$$

Average Velocity = Story Points per Day

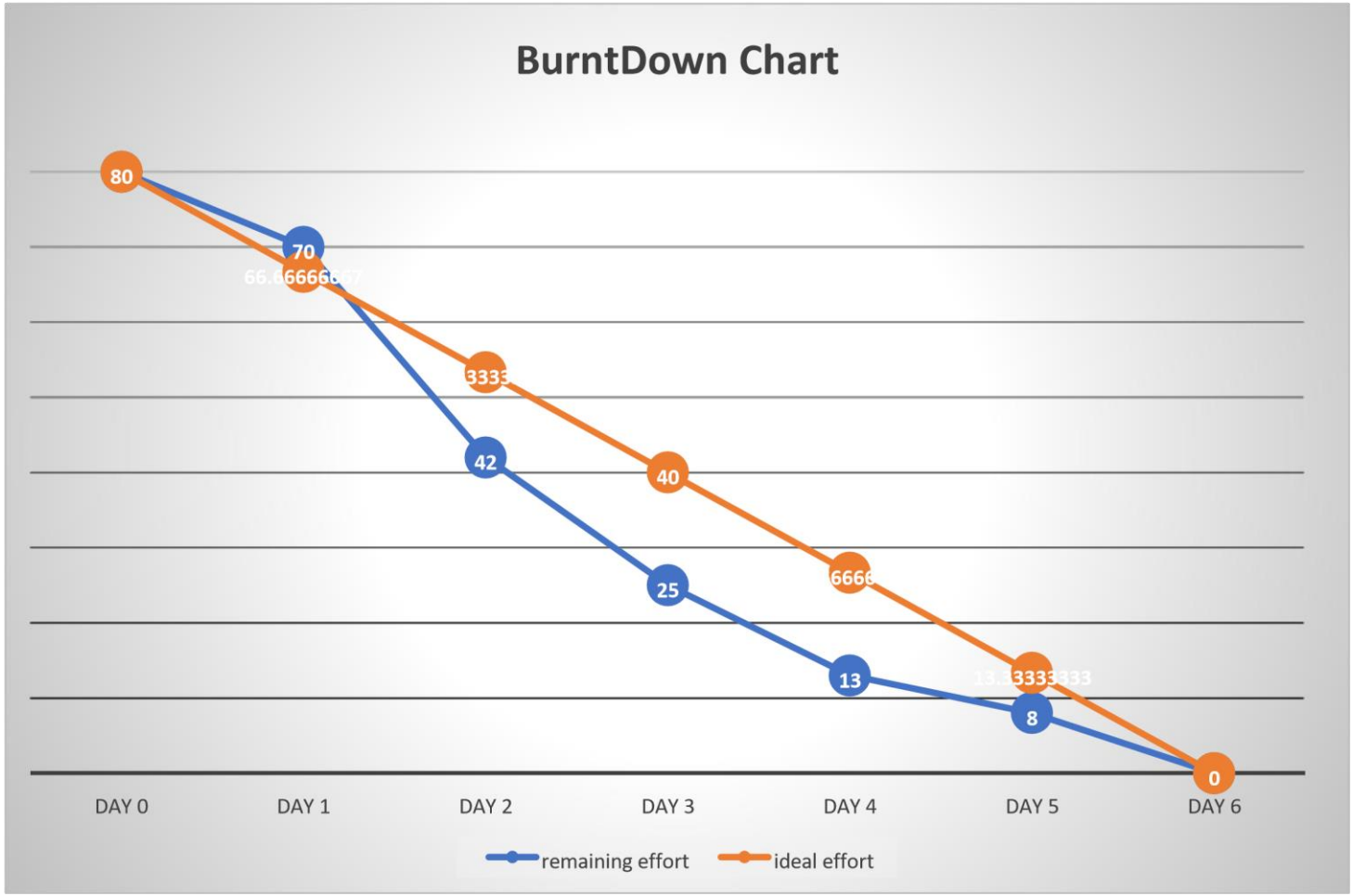
Sprint Duration = Number of (Duration) days per Sprint Velocity

= Points per Sprint

AV = $\frac{20}{6} \approx 4$

Therefore, the **AVERAGE VELOCITY IS 4 POINTS PER SPRINT**

Burndown Chart:


BurntDown Chart
80
70
66.66666667
3333
42
40
6666
25
13
13.33333333
8
0
DAY 0
DAY 1
DAY 2
DAY 3
DAY 4
DAY 5
DAY 6
remaining effort
ideal effort