Project Planning Phase

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

Date	18 October 2022
Team ID	PNT2022TMID12576
Project Name	Deep Learning Fundus Image Analysis for Early Detection of Diabetic Retinopathy

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

Use the below template to create product backlog and sprint schedule

Release	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Data collection	Task-1	To build a Deep learning Model which begins with the process of splitting data into training and testing set	7	High	Tharun, Suriya Prasad
Sprint-1	Data preprocessing	Task-2	We import the required libraries for preprocessing. We instantiate the ImageDataGenerator class to configure and augment different types of image data	4	High	Vishwakjith, Raswanth
Sprint-1	Data preprocessing	Task-3	Application of the ImgaeDataGenerator to the Train and Test Set.	6	Medium	Tharun
Sprint-1	Building Homepage	USN-1	As a user, she will be given a brief description in the homepage.	3	High	Suriya Prasad, Raswanth
Sprint-2	Feature Extraction	Task-4	Build a CNN Model and only use it as a feature extraction by freezing the convolution blocks.	8	High	Tharun, Raswanth
Sprint-2	Building the layers	Task-5	Adding of dense layers with the aid of Keras. Addition of Optimizer, choosing loss function and the Metrics.	6	High	Vishwakjith, Tharun
Sprint-2	Train, Save, Test	Task-6	To train the model with the configured neural network and save the model. Test the built model against the testing dataset.	5	High	Suriya Prasad, Vishwakjith

Release	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-2	Building Registration Page	USN-2	As a user, she will be able to register for the application	7	High	Suriya Prasad
Sprint-3	Create Service Instance	Task-7	Configure the location of resources, such as web server, and Cloud Storage for an application.	4	Medium	Tharun, Vishwakjith
Sprint-3	Configuring credentials and creating DB	Task-8	Define the credentials that are required to access the services offered by IBM Cloudant and add users to access the DB.	4	High	Vishwakjith, Raswanth
Sprint-3	Create tables in DB	Task-9	structure the required tables with necessary attributes in Cloudant DB.	5	Medium	Tharun
Sprint-3	Building Login Page	USN-3	As a user, she will be able to login using her credentials	6	High	Suriya Prasad, Raswanth
Sprint-4	Building Prediction Page	USN-4	As a user, she will be able to receive the diagnosis on her diabetic retinopathy.	4	High	Tharun, Raswanth
Sprint-4	Building Logout Page	USN-5	As a user, she will be able to logout of her account in this page.	5	High	Vishwakjith, Tharun
Sprint-4	Build Python Code	Task-9	Import the libraries and Initialise the necessary modules	7	High	Suriya Prasad, Vishwakjith
Sprint-4		Task-10	Use the database using initiated client and rendering HTML pages	8	Medium	Suriya Prasad, Vishwakjith
Sprint-4		Task-11	Configuring the registration, login pages and validating the credentials	5	High	Tharun, Suriya Prasad
Sprint-4		Task-12	Showcasing the model’s prediction on UI.	4	High	Vishwakjith, Raswanth
Sprint-4	Run the application	Task-13	Run the application in the anaconda prompt to check the application	5	Medium	Tharun
Sprint-4		Task-14	In the homepage, after logging on using credentials, upload the image to predict the diagnosis on diabetic retinopathy.	4	High	Suriya Prasad, Raswanth
Sprint-4	Train Moden on IBM	Task-15	train the model on IBM and integrate it with the flask Application.	3	High	Suriya Prasad, Vishwakjith

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)

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