Project Planning Phase

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

Date	27-10-2023
Team ID	PNT2022TMID592627
Project Name	Diabetes prediction using ML
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	Project Initialization & Infrastructure Setup	USN-1	As a healthcare professional, I want Set up the development environment with the required tools and frameworks to start the diabetes prediction project.	1	High	Tasneem
Sprint-1	Data collection	USN-2	As a health care institutions, I want to collect and Gather a comprehensive dataset of health records and relevant parameters for training the diabetes prediction model.	2	High	Prasuna
Sprint-2	data preprocessing	USN-3	Preprocess the collected dataset by cleaning, normalizing, and splitting it into training and validation sets.	3	High	Prasuna
Sprint-3	Model Development & Training	USN-4	select the most suitable model for predicting diabetes onset and Train the selected machine learning model using the preprocessed dataset.	5	High	Shreya
Sprint-4	model deployment & Integration	USN-5	As a system Administrator, I want to Deploy the trained machine learning model as a service or API and integrate it into a user-friendly interface.	6	High	Harini
Sprint-5	Personalized Risk Assessment	USN-6	As an individual, I want to input my health data into the system to receive a personalized risk assessment for diabetes onset.	1	medium	Tasneem
Sprint-5	Model Evaluation and Enhancement	USN-7	As a researcher, I want tools to evaluate the effectiveness of the diabetes prediction model and continuously enhance its performance.	2	High	Tasneem

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	3	1 Day	28 oct 2023	28 oct 2023	3	28 oct 2023
Sprint-2	3	1 Day	29 oct 2023	29 oct 2023	3	29 oct 2023
Sprint-3	5	3 Days	30 oct 2023	1 nov 2023	5	1 nov 2023
Sprint-4	6	3 Days	2 nov 2023	4 nov 2023	6	4 nov 2023
Sprint-5	3	2 Days	5 nov 2023	6 nov 2023	3	6 nov 2023

Velocity:
Imagine we have a 11-days sprint duration, and the velocity of the team is 4 (points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day)

Velocity = (3+3+5+6+3) / 5 = 20 / 5 = 4

$$AV = \frac{sprint\ duration}{velocity}$$

AV = 11/4 = 2.75

Burndown Chart: