

## Project Planning Phase

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

Date	2 November , 2023
Team ID	Team - 592087
Project Name	Project - Time Series Analysis for Bitcoin Price Prediction
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	Registration	USN-1	As a user, I want to register through email and password to access personalized features.	8	High	Sravani
Sprint-1	Registration	USN-2	As a user, I want to register through mobile number to enhance account security.	5	Medium	Vismaya
Sprint-2	Registration	USN-3	As a user, I want the option to register	5	Medium	Vismaya

			through my Gmail account for a seamless sign-up process.			
Sprint-1	Login	USN-4	As a registered user, I want to log in securely using my chosen credentials.	3	High	Sravani
Sprint-1	Dashboard	USN-5	As a user, I want a personalized dashboard to view Bitcoin price predictions and historical data	13	High	Sravani
Sprint -1	Data Scientist	USN -6	As a data scientist, I want to collect historical Bitcoin price data from external sources via APIs.	5	High	Vismaya
Sprint-1	Developer	USN -7	As a developer, I want to clean and preprocess the collected data to handle missing values and outliers.	8	High	Sravani
Sprint-2	Machine Learning Engineer	USN -8	As a machine learning engineer, I want to train and evaluate various time series models for Bitcoin price prediction.	13	High	Vismaya
Sprint-2	Researcher	USN- 9	As a researcher, I want to explore statistical properties and patterns in the Bitcoin price data for initial insights.	3	Medium	Vismaya

**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	15	13 Days	5 Oct 2023	18 Oct 2023	15	18 Oct 2023
Sprint-2	05	12 Days	19 Oct 2023	01 Nov 2023	05	01 Nov 2023
Sprint-3	10	13 Days	02 Nov 2023	15 Nov 2023	10	15 Nov 2023
Sprint-4	15	13 Days	16 Nov 2023	29 Nov 2023	15	29 Nov 2023
Sprint - 5	10	1 Day	30 Nov 2023	30 Nov 2023	10	30 Nov 2023

**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)

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

Reference:

<https://www.atlassian.com/agile/project-management>

<https://www.atlassian.com/agile/tutorials/how-to-do-scrum-with-jira-software>

<https://www.atlassian.com/agile/tutorials/epics>

<https://www.atlassian.com/agile/tutorials/sprints>

<https://www.atlassian.com/agile/project-management/estimation>

<https://www.atlassian.com/agile/tutorials/burndown-charts>