## **Project Planning Phase**

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

|              | <u> </u>                   |  |  |
|--------------|----------------------------|--|--|
| Date         | 22 October 2022            |  |  |
| Team ID      | PNT2022TMID05981           |  |  |
| Project Name | Crude Oil Price Prediction |  |  |

## **Product Backlog, Sprint Schedule, and Estimation**

| Sprint   | Functional<br>Requirement<br>(Epic) | User<br>Story<br>Number | User Story / Task                    | Story Points | Priority | Team Members   |
|----------|-------------------------------------|-------------------------|--------------------------------------|--------------|----------|--|
| Sprint-1 | Data Collection                     | USN-1                   | Download Crude Oil Price Dataset     | 2            | Medium   | Naveen Karthi p<br>Mahendra Prakash R<br>Muthu Rathis k<br>Rithick m |
| Sprint-1 | Data Preprocessing                  | USN-2                   | Importing The Dataset into Workspace | 1            | Low      | Naveen Karthi P<br>Mahendra Prakash R                                |
| Sprint-1 |                                     | USN-3                   | Handling Missing Data                | 3            | Medium   | Muthu rathis K<br>Rithick M  |
| Sprint-1 |                                     | USN-4                   | Feature Scaling                      | 3            | Low      | Naveen karthi P<br>Mahendra Prakash R                                |
| Sprint-1 |                                     | USN-5                   | Data Visualization                   | 3            | Medium   | Muthu rathis K<br>Rithick M  |

| Sprint-1 |                | USN-6  | Splitting Data into Train and Test        | 4 | High   | Naveen Karthi P<br>Mahendra Prakash R |  |
|----------|----------------|--------|---|---|--------|---------------------------------------|--|
| Sprint-1 |                | USN-7  | Creating A Dataset with Sliding Windows   | 4 | High   | Muthu rathis K<br>Rithick M           |  |
| Sprint-2 | Model Building | USN-8  | Importing The Model Building<br>Libraries | 1 | Medium | Naveen karthi P<br>Mahendra Prakash R |  |
| Sprint-2 |                | USN-9  | Initializing The Model                    | 1 | Medium | Muthu rathis K<br>Rithick M           |  |
| Sprint-2 |                | USN-10 | Adding LSTM Layers                        | 2 | High   | Muthu rathis K<br>Rithick M           |  |
| Sprint-2 |                | USN-11 | Adding Output Layers                      | 3 | Medium | Naveen karthi P<br>Mahendra Prakash r |  |
| Sprint-2 |                | USN-12 | Configure The Learning Process            | 4 | High   | Muthu rathis K<br>Rithick M           |  |
| Sprint-2 |                | USN-13 | Train The Model                           | 2 | Medium | Muthu rathis K<br>Rithick M           |  |
| Sprint-2 |                | USN-14 | Model Evaluation                          | 1 | Medium | Naveen karthi P<br>Mahendra Prakash R |  |
| Sprint-2 |                | USN-15 | Save The Model                            | 2 | Medium | Naveen Karthi P<br>Mahendra Prakash R |  |
| Sprint-2 |                | USN-16 | Test The Model                            | 3 | High   | Muthu rathis K<br>Rithick M           |  |

| Sprint-3 | Application<br>Building | USN-17 | Create An HTML File                       | 4 | Medium | Naveen Karthi p<br>Mahendra Prakash R |
|----------|-------------------------|--------|---|---|--------|---------------------------------------|
| Sprint-3 |                         | USN-18 | Build Python Code                         | 4 | High   | Muthu rathis K<br>Rithick M           |
| Sprint-3 |                         | USN-19 | Run The App in Local Browser              | 4 | Medium | Naveen karthi P<br>Mahendra Prakash R |
| Sprint-3 |                         | USN-20 | Showcasing Prediction On UI               | 4 | High   | Muthu rathis K<br>Rithick M           |
| Sprint-4 | Train The<br>ModelOnIBM | USN-21 | Register For IBM Cloud                    | 4 | Medium | Naveen karthi P<br>Mahendra Prakash M |
| Sprint-4 |                         | USN-22 | Train The ML Model On IBM                 | 8 | High   | Muthu rathis K<br>Rithick M           |
| Sprint-4 |                         | USN-23 | Integrate Flask with Scoring End<br>Point | 8 | High   | Naveen karthi P<br>Mahendra Prakash R |

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

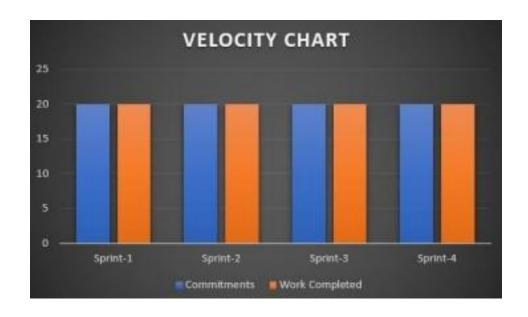
| Sprint   | Total Story<br>Points | Duration | Sprint Start<br>Date | Sprint End Date<br>(Planned) | Story Points<br>Completed (as on<br>Planned End<br>Date) | Sprint Release Date(Actual) |
|----------|-----------------------|----------|----------------------|------------------------------|--|-----------------------------|
| 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   | 03 Nov 2022                 |

| Sprint-3 | 20 | 6 Days | 07 Nov 2022 | 12 Nov 2022 | 20 | 10 Nov 2022 |
|----------|----|--------|-------------|-------------|----|-------------|
| Sprint-4 | 20 | 6 Days | 14 Nov 2022 | 19 Nov 2022 | 20 | 17 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) 
$$AV = \frac{sprint\ duration}{velocity} = \frac{20}{10} = 2$$



#### **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 suchas Scrum. However, burn down charts can be applied to any project containing measurable progress over time.

