**Project Planning Phase**

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

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|---|---|
| Date | 23 October 2022 |
| Team ID | PNT2022TMID22682 |
| Project Name | Crude Oil 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 | Data Collection | USN-1 | Download Crude Oil Price Dataset | 2 | Medium | Kishore H |
| Sprint-1 | Data Preprocessing | USN-2 | Importing The Dataset into Workspace | 1 | Low | Arun Pandian MR |
| Sprint-1 | | USN-3 | Handling Missing Data | 3 | Medium | DhilipKumar KK |
| Sprint-1 | | USN-4 | Feature Scaling | 3 | Low | Katheravan S |
| Sprint-1 | | USN-5 | Data Visualization | 3 | Medium | Divakar M S |
| Sprint-1 | | USN-6 | Splitting Data into Train and Test | 4 | High | Kishore H |
| Sprint-1 | | USN-7 | Creating A Dataset with Sliding Windows | 4 | High | DhilipKumar KK |
| Sprint-2 | Model Building | USN-8 | Importing The Model Building Libraries | 1 | Medium | Arun Pandian MR |
| Sprint-2 | | USN-9 | Initializing The Model | 1 | Medium | Katheravan S |
| Sprint-2 | | USN-10 | Adding LSTM Layers | 2 | High | Kishore H |
| Sprint-2 | | USN-11 | Adding Output Layers | 3 | Medium | DhilipKumar KK |
| Sprint-2 | | USN-12 | Configure The Learning Process | 4 | High | Arun Pandian MR |

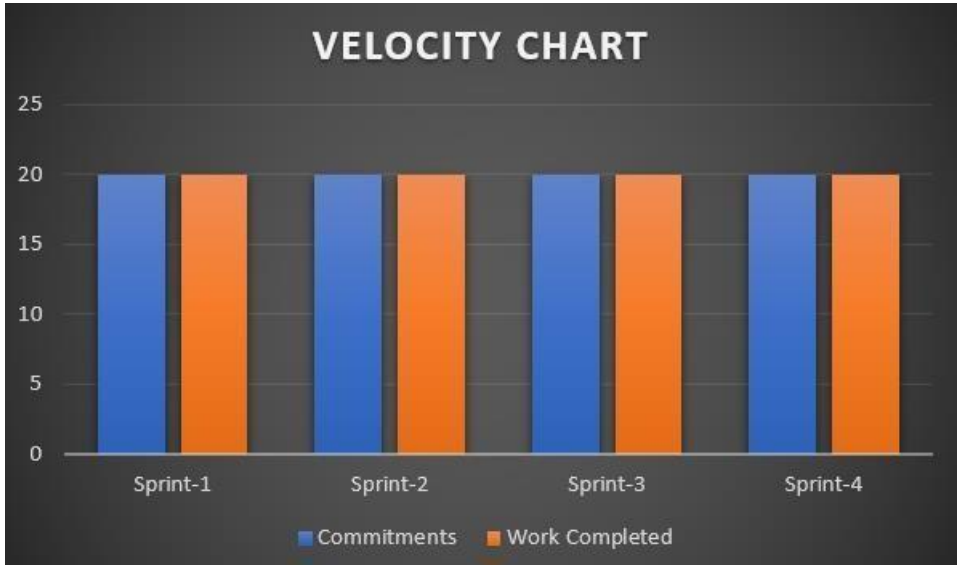
| Sprint | Functional Requirement (Epic) | User Story Number | User Story / Task | Story Points | Priority | Team Members |
|---|---|---|---|---|---|---|
| Sprint-2 | | USN-13 | Train The Model | 2 | Medium | Divakar M S |
| Sprint-2 | | USN-14 | Model Evaluation | 1 | Medium | Arun Pandian MR |
| Sprint-2 | | USN-15 | Save The Model | 2 | Medium | DhilipKumar KK |
| Sprint-2 | | USN-16 | Test The Model | 3 | High | Kishore H |
| Sprint-3 | Application Building | USN-17 | Create An HTML File | 4 | Medium | Katheravan S |
| Sprint-3 | | USN-18 | Build Python Code | 4 | High | Arun Pandian MR |
| Sprint-3 | | USN-19 | Run The App in Local Browser | 4 | Medium | Divakar M S |
| Sprint-3 | | USN-20 | Showcasing Prediction On UI | 4 | High | DhilipKumar KK |
| Sprint-4 | Train The Model On IBM | USN-21 | Register For IBM Cloud | 4 | Medium | Kishore H |
| Sprint-4 | | USN-22 | Train The ML Model On IBM | 8 | High | Arun Pandian MR |
| Sprint-4 | | USN-23 | Integrate Flask with Scoring End Point | 8 | High | Kishore H |

**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 | 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 burn down 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.