**Initial Project Planning Template**

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| Date | 25/6/24 |
| Team ID | SWTID1720100721 |
| Project Name | Machine Learning Approach to Predict Price of Natural Gas |
| Maximum Marks | 4 Marks |

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

Use the below template to create a product backlog and sprint schedule

| **Sprint** | **Functional Requirement (Epic)** | **User Story Number** | **User Story / Task** | **Story Points** | **Priority** | **Team Members** | **Sprint Start Date** | **Sprint End Date (Planned)** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sprint-1 | Data Collection | USN-1 | As a user, I can access and download historical natural gas price data from reliable sources. | 3 | High | Pranjal | 25/6/24 | 26/6/24 |
| Sprint-1 | Data Cleaning | USN-2 | As a user, I can identify and remove inconsistencies, missing values, and outliers from the collected data. | 2 | High | Arshad | 27/6/24 | 28/6/24 |
| Sprint-2 | Feature Engineering | USN-3 | As a user, I can transform the raw data into relevant features by creating new variables, encoding categorical features, and applying dimensionality reduction techniques. | 5 | Low | Nishit | 1/7/24 | 2/7/24 |
| Sprint-1 | Model Selection | USN-4 | As a user, I can explore and compare different machine learning models like linear regression or neural networks for predicting natural gas prices. | 4 | Medium | Brinda | 3/7/24 | 4/7/24 |
| Sprint-1 | Model Training | USN-5 | As a user, I can train and optimize the selected model using the prepared dataset to minimize the prediction error and improve accuracy. | 5 | High | Arshad | 8/7/24 | 9/7/24 |