# Initial Project Planning Template

| Date | 18 July 2024 |
|---|---|
| Team ID | SWTID1721319573 |
| Project Name | Blueberry Yield Prediction |
| Maximum Marks | 4 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 Start Date | Sprint End Date (Planned) |
|---|---|---|---|---|---|---|---|---|
| Sprint-1 | Data Collection & Preparation | USN-1 | Identify and collect primary data sources for blueberry yield prediction | 3 | High | Angelica T | 18th July 2024 | 19th July 2024 |
| Sprint-1 | | USN-2 | Identify and collect secondary data sources for blueberry yield prediction | 2 | High | Angelica T | 18th July 2024 | 19th July 2024 |
| Sprint-1 | Data Preparation | USN-3 | Clean and preprocess the collected data, handle missing value | 3 | High | Angelica T | 18th July 2024 | 19th July 2024 |
| Sprint-2 | Exploratory Data Analysis (EDA) | USN-4 | Perform descriptive statistical analysis on the dataset | 2 | High | Angelica T | 19th July 2024 | 20th July 2024 |
| Sprint-2 | | USN-5 | Conduct visual analysis using histograms, scatter plots, and heatmaps | 3 | High | Angelica T | 19th July 2024 | 20th July 2024 |
| Sprint-3 | Model Building | USN-6 | Train the data using Linear Regression model | 2 | High | Angelica T | 20th July 2024 | 21st July 2024 |
| Sprint-3 | | USN-7 | Train the data using Random Forest Regressor model | 2 | Medium | Angelica T | 20th July 2024 | 21st July 2024 |

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|--------|-------------------------------|-------------------|-------------------|--------------|----------|--------------|-------------------|---------------------------|
| Sprint-3 | | USN-8 | Train the data using Decision Tree Regressor model | 2 | Medium | Angelica T | 20th July 2024 | 21st July 2024 |
| Sprint-3 | | USN-9 | Train the data using XGBoost Regressor model | 2 | Medium | Angelica T | 20th July 2024 | 21st July 2024 |
| Sprint-4 | Model Evaluation & Tuning | USN-10 | Test the models with evaluation metrics (MAE, RMSE, R2) | 2 | High | Angelica T | 21st July 2024 | 22nd July 2024 |
| Sprint-4 | | USN-11 | Perform hyperparameter tuning on the models | 2 | Medium | Angelica T | 21st July 2024 | 22nd July 2024 |
| Sprint-5 | Model Deployment | USN-12 | Save the best model and prepare it for deployment | 1 | High | Angelica T | 22nd July 2024 | 22nd July 2024 |
| Sprint-5 | Build server-side script using Flask to integrate the model | USN-13 | Develop HTML pages for user input and result display | 2 | High | Angelica T | 22nd July 2024 | 22nd July 2024 |
| Sprint-5 | | USN-14 | Build server-side script using Flask to integrate the model | 2 | High | Angelica T | 22nd July 2024 | 22nd July 2024 |
| Sprint-6 | Project Demonstration & Documentation | USN-15 | Record an explanation video of the project | 1 | Medium | Angelica T | 22nd July 2024 | 23nd July 2024 |
| Sprint-6 | | USN-16 | Document the project development process step-by-step | 2 | High | Angelica T | 22nd July 2024 | 23nd July 2024 |