## **Initial Project Planning Report**

Date	25-06-2024
Team ID	NONE
Project Name	Employee Performance Prediction using Machine Learning

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

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Priority	Team Member	Sprint Start Date	Sprint End Date (Planned)
Sprint- 1	Data Collection and Preprocessing	SL-1	Understand and load dataset	High	Vansh	23-06- 2025	30-06-2025
Sprint- 1	Data Collection and Preprocessing	SL-2	Handle missing values (e.g., wip column)	High	Vansh	23-06- 2025	30-06-2025
Sprint- 1	Data Collection and Preprocessing	SL-3	Encode categorical variables (Quarter, Department)	Medium	Vansh	23-06- 2025	30-06-2025
Sprint- 1	Exploratory Data Analysis (EDA)	SL-4	Perform EDA: correlation analysis, histograms, box plots	High	Vansh	23-06- 2025	30-06-2025
Sprint- 1	Exploratory Data Analysis (EDA)	SL-5	Generate visualizations (correlation matrix, feature distributions)	Medium	Vansh	23-06- 2025	30-06-2025
Sprint-	Model Building and	SL-6	Train Linear Regression	Medium	Vansh	30-06- 2025	07-07-2025

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Priority	Team Member	Sprint Start Date	Sprint End Date (Planned)
	Evaluation		model				
Sprint- 2	Model Building and Evaluation	SL-7	Train Random Forest model	High	Vansh	30-06- 2025	07-07-2025
Sprint- 2	Model Building and Evaluation	SL-8	Train XGBoost model	Medium	Vansh	30-06- 2025	07-07-2025
Sprint- 2	Model Building and Evaluation	SL-9	Evaluate models using R² score and compare performance	High	Vansh	30-06- 2025	07-07-2025
Sprint- 3	Model Tuning and Testing	SL-10	Fine-tune Random Forest (best model) using hyperparameter tuning	High	Vansh	07-07- 2025	14-07-2025
Sprint-	Model Tuning and Testing	SL-11	Test final model on validation set	Medium	Vansh	07-07- 2025	14-07-2025
Sprint- 3	Model Tuning and Testing	SL-12	Save trained model and feature columns for deployment	High	Vansh	07-07- 2025	14-07-2025
Sprint- 3	Web Integration and Deployment	SL-13	Design Flask web interface for input form	Medium	Vansh	07-07- 2025	14-07-2025
Sprint- 4	Web Integration and Deployment	SL-14	Integrate trained model with Flask backend	High	Vansh	14-07- 2025	21-07-2025
Sprint- 4	Web Integration and	SL-15	Test end-to-end prediction flow (input → output)	Medium	Vansh	14-07- 2025	21-07-2025

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Priority	Team Member	Sprint Start Date	Sprint End Date (Planned)
	Deployment						
Sprint-4	Project Report	SL-16	Prepare final project report (documentation, screenshots)	Medium	Vansh	21-07- 2025	05-08-2025

## Screenshot:





