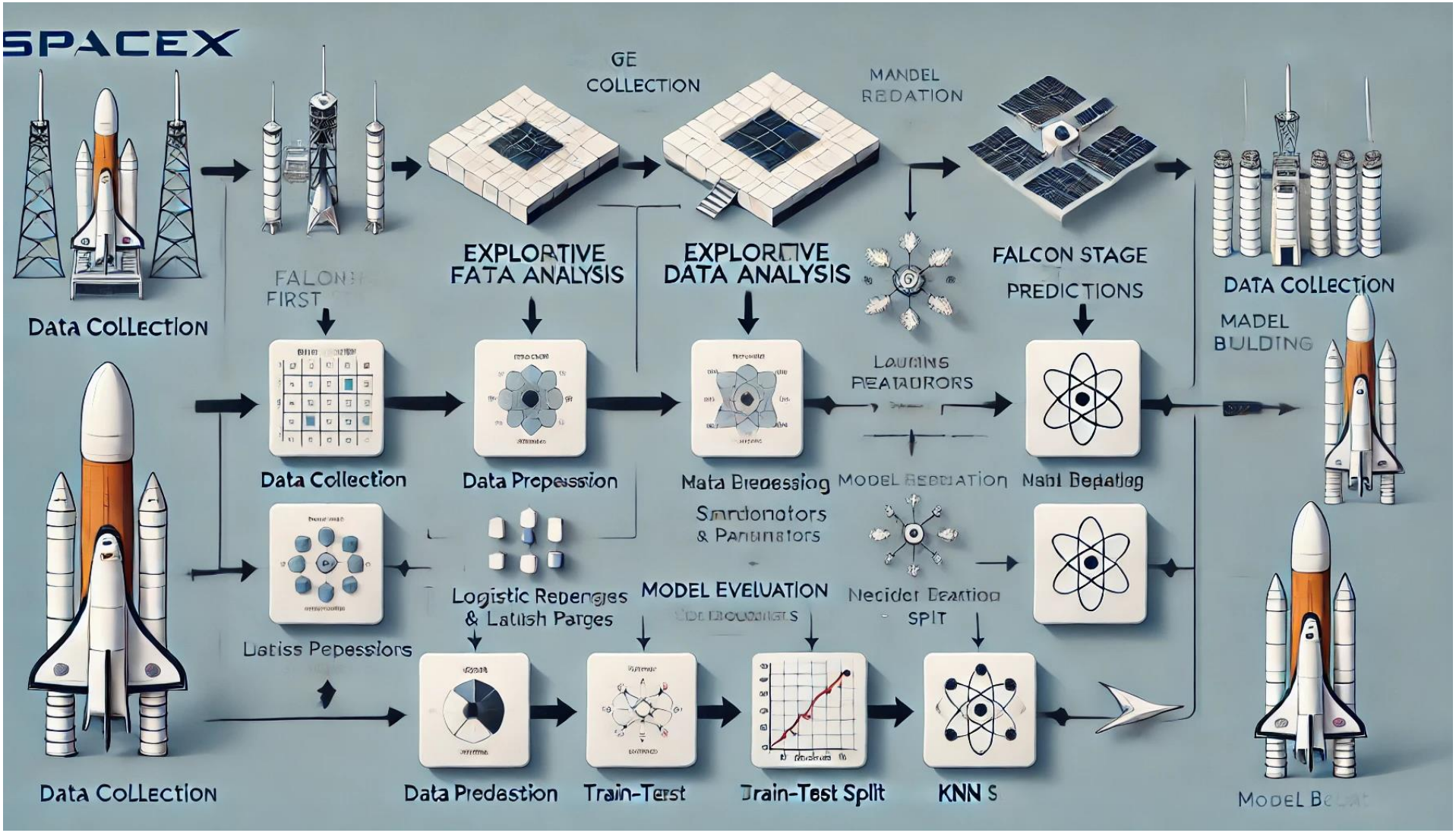
Project Design Phase-II
Data Flow Diagram & User Stories

Date	03 October 2022
Team ID	PNT2022TMIDxxxxxx
Project Name	Project - Falcon
Maximum Marks	4 Marks

Data Flow Diagrams:

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.



User Stories

Use the below template to list all the user stories for the product.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile user)	Data Collection	USN-1	As a data scientist, I can collect historical launch and weather data from reliable sources to ensure data accuracy for analysis.	Historical data is successfully retrieved and stored in a repository.	High	Sprint-1
Data Scientist	Exploratory Data Analysis (EDA)	USN-2	As a data scientist, I can visualize launch parameters to identify trends in successful and failed landings.	Relevant visualizations are generated to reveal data patterns	High	Sprint-1
Data Engineer	Data Preprocessing	USN-3	As a data engineer, I can clean, standardize, and preprocess data to ensure consistency and readiness for model training.	Data is validated and free from null values and outliers.	high	Sprint-2
ML Engineer	Model Building	USN-4	As an ML engineer, I can train various models (e.g., Logistic Regression, SVM) to predict the success of Falcon 9 landings.	Trained models achieve baseline accuracy on the test dataset..	Medium	Sprint-1
ML Engineer	Model Evaluation	USN-5	As an ML engineer, I can evaluate models to select the best one based on accuracy, precision, and recall.	The best model is identified and documented with performance metrics.	High	Sprint-1
Product Owner	Reporting	USN-6	As a product owner, I can view a summary of the model's accuracy and conclusions to assess the product’s effectiveness.	A report is generated summarizing key findings, including model performance.	high	
End User (Analyst)	Prediction Access	USN-7	As an analyst, I can access the prediction dashboard to view real-time landing success predictions for upcoming Falcon 9 launches.	Real-time predictions are displayed on the dashboard with high availability.	high	
System Administrator	Model Deployment	USN-8		The model is deployed and accessible, with uptime of at least 99.9%.	high	

			As a system administrator, I can deploy the best-performing model to a cloud environment to ensure scalability and uptime.			