

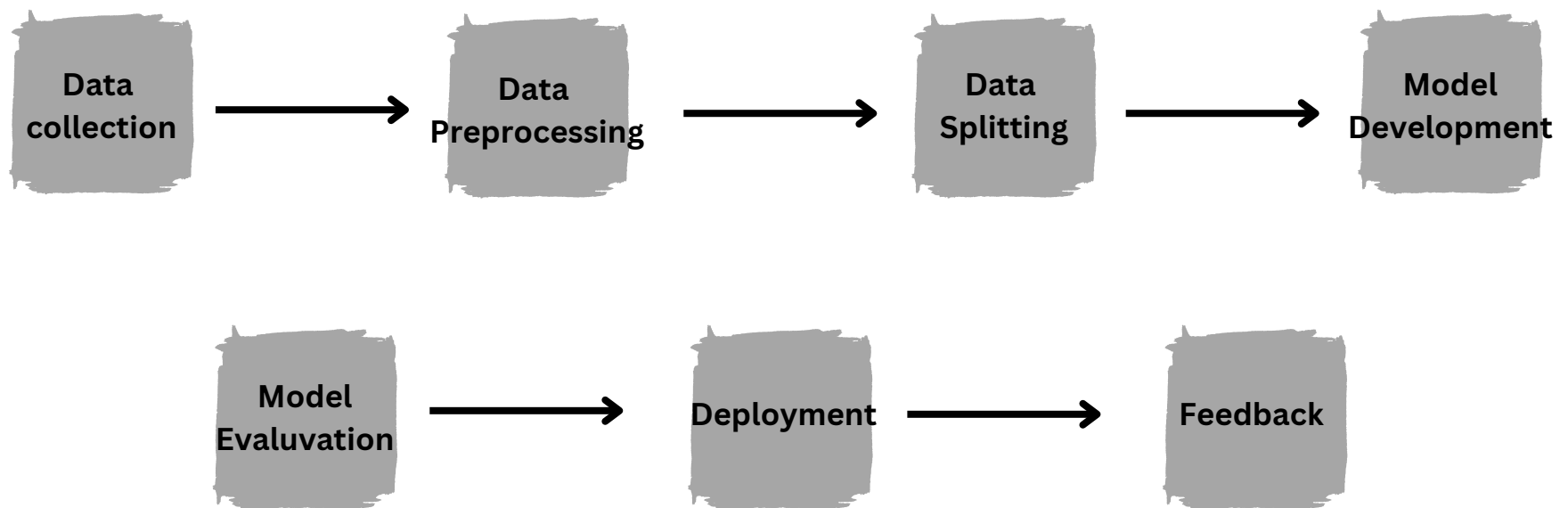
Project Design Phase-II
Data Flow Diagram & User Stories

Date	27 October 2023
Team ID	Team-593136
Project Name	Project - Car Purchase Prediction Using ML
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.

- □ DFDs consist of processes, data stores, data flows, and external entities.
- □ Processes represent actions or transformations.
- □ Data stores are repositories for data.
- □ Data flows illustrate the movement of data.
- □ External entities interact with the system.
- □ Data flows depict the movement of data between stages in the system.
- □ They are labeled to describe the type of data being transmitted.



User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Data Scientist	Data Collection Epic	USN-1	As a data scientist, I want to collect diverse data to train the model effectively	- Data collected from at least 1000 individuals. - Data includes age, gender, annual income, and car purchase information.	high	1
Data Engineer	Data Preprocessing Epic	USN-2	As a data engineer, I want to preprocess the raw data for better model performance.	- Missing values handled appropriately. - Categorical variables (like gender) encoded numerically. - Numerical feature scaling applied.	high	3
ML Developer	Data Splitting Epic	USN-3	As a machine learning developer, I want to split the data into training and testing sets.	- Data split into 80% training and 20% testing sets.	medium	2
ML Developer	Model Development Epic	USN-4	As a machine learning developer, I want to choose and train a suitable classification algorithm.	- Select a classification algorithm (e.g., Logistic Regression, Decision Trees). - Train the model on the training set.	high	1
ML Developer	Model Evaluation Epic	USN-5	As a machine learning developer, I want to evaluate the model's performance.	- Calculate accuracy, precision, recall, and F1 score. - Ensure model meets predefined performance thresholds.	low	1
DevOps Engineer	Deployment Epic	USN-6	As a DevOps engineer, I want to deploy the trained model for predictions on new data.	- Model deployed to a production environment. - Able to make predictions on new data.	high	3
Business Analyst	Feedback Loop Epic	USN-7	As a business analyst, I want a feedback loop to continuously improve the model.	- Collect feedback on model predictions. - Implement updates based on feedback.	medium	2