Project Design Phase
Data Flow Diagram & User Stories

Date	09 November 2023
Team ID	Team-592143
Project Name	Walmart Sales Analysis For Retail Industry With Machine Learning
Maximum Marks	4 Marks

Data Flow Diagrams:

The data flow initiates with data collection from 45 Walmart stores. The data is then preprocessed to clean, transform, and aggregate it. Subsequently, machine learning models (including Random Forest, Decision Tree, XGBoost, and ARIMA) are applied for sales forecasting.Results of the analysis are integrated into a Flask web application hosted on Local server, facilitating user-friendly data visualization and insights. Endusers, encompassing data analysts, business strategists, and store managers, access the application through web browsers, allowing them to make data-driven decisions for improved sales optimization.
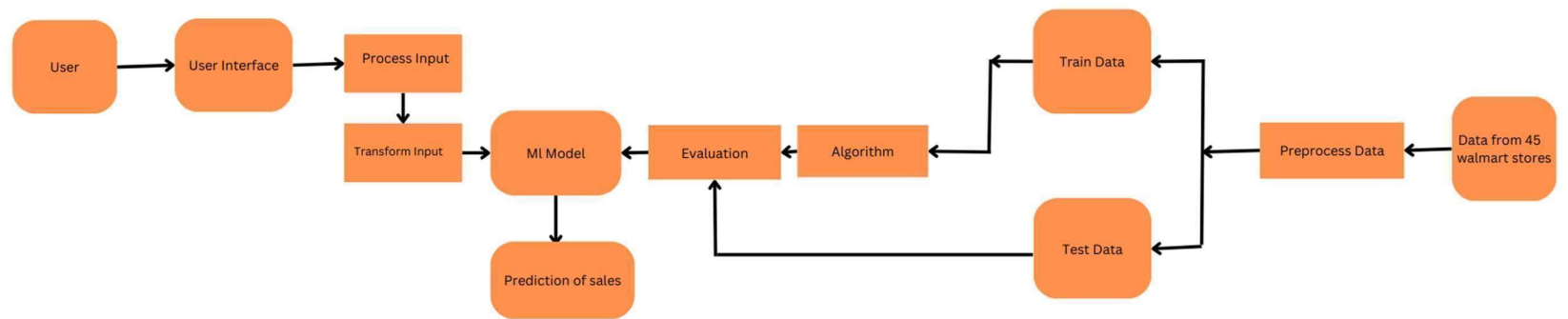
User Stories:

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Store Manager	User Interface	USN-1	As a Store Manager, I want user friendly interface	I can navigate easily	High	Sprint-1
		USN-2	As a Store Manager, I want expected number of fields to give input	Expected number of fields to give input	High	Sprint-1
Regional Manager	Comparative Analysis	USN-3	As a Regional Manager, I view and compare sales across multiple stores	I can view and compare sales across multiple stores through dashboard	High	Sprint-2
	Holiday Impact Analysis	USN-4	As a Store manager, I want to access the insights to understand the impact of holidays on sales.	I can access sales analysis and forecasting insights for holidays through dashboard	High	Sprint-2
Business Strategist	Trend Analysis	USN-5	As a Strategist, I want to identify patterns and trends in historical sales data for strategic decision making	I can identify trends for decision making	High	Sprint-2
Store Manager	Recommendations	USN-6	As a store manager, I want recommendations for improved decision making.	I can access recommendations for sales optimization through dashboard	High	Sprint-2

Data Analyst	Prediction	USN-7	As a Data Analyst, I want to forecast future sales trends accurately	Deploy accurate model for forecasting future sales	High	Sprint-3
		USN-8	As a Data Analyst, I want clear display of prediction	I can see prediction clearly	High	Sprint-3