Project Initialization and Planning Phase

Date	5 July 2024
Team ID	SWTID1720082658
Project Title	Ecommerce Shipping Prediction Using Machine Learning
Maximum Marks	3 Marks

Project Proposal (Proposed Solution) report

The project report outlines a solution to address the challenge of inaccurate shipping delivery predictions faced by e-commerce platforms. Key features includes accurate delivery predictions, real-time updates, seamless integration with e-commerce platforms, scalability, and continuous optimization of machine learning models.

Project Overview	
Objective	Develop a machine learning model to accurately predict shipping delivery times, enhancing delivery accuracy, customer satisfaction, and platform reputation.
Scope	Collect historical and real-time shipping data, develop and train models, integrate with e-commerce platforms, provide real-time delivery updates, and ensure scalability for high order volumes.
Problem Statement	
Description	E-commerce platforms struggle with accurately predicting shipping delivery times, failing to account for real-time factors like traffic, weather, and carrier delays, leading to unreliable delivery estimates and customer frustration.
Impact	Solving this problem will enhance delivery accuracy, improve customer satisfaction, boost trust and loyalty, and strengthen the platform's reputation, ultimately driving higher sales and reducing customer churn.
Proposed Solution	
Approach	We will develop machine learning models trained on historical and real-time data to predict shipping delivery times accurately. These

	models will be integrated with e-commerce platforms to provide seamless and up-to-date delivery information.
Key Features	• Accurate Predictions: Models that factor in distance, traffic, weather, and other variables. • Real-Time Updates: Immediate notifications on delivery status and delays. • Seamless Integration: Easy connection with e-commerce platforms. • Scalability: Efficient handling of large order volumes.

Resource Requirements

Resource Type	Description	Specification/Allocation
Hardware		
Computing Resources	CPU/GPU specifications, number of cores	Intel Core i5 10th Gen
Memory	RAM specifications	8 GB
Storage	Disk space for data, models, and logs	1 TB SSD
Software		
Frameworks	Python frameworks	Flask
Libraries	Additional libraries	scikit-learn, pandas, numpy, sklearn, matplotlib
Development Environment	IDE, version control	Jupyter Notebook, Git
Data		
Data	Source, size, format	Kaggle dataset