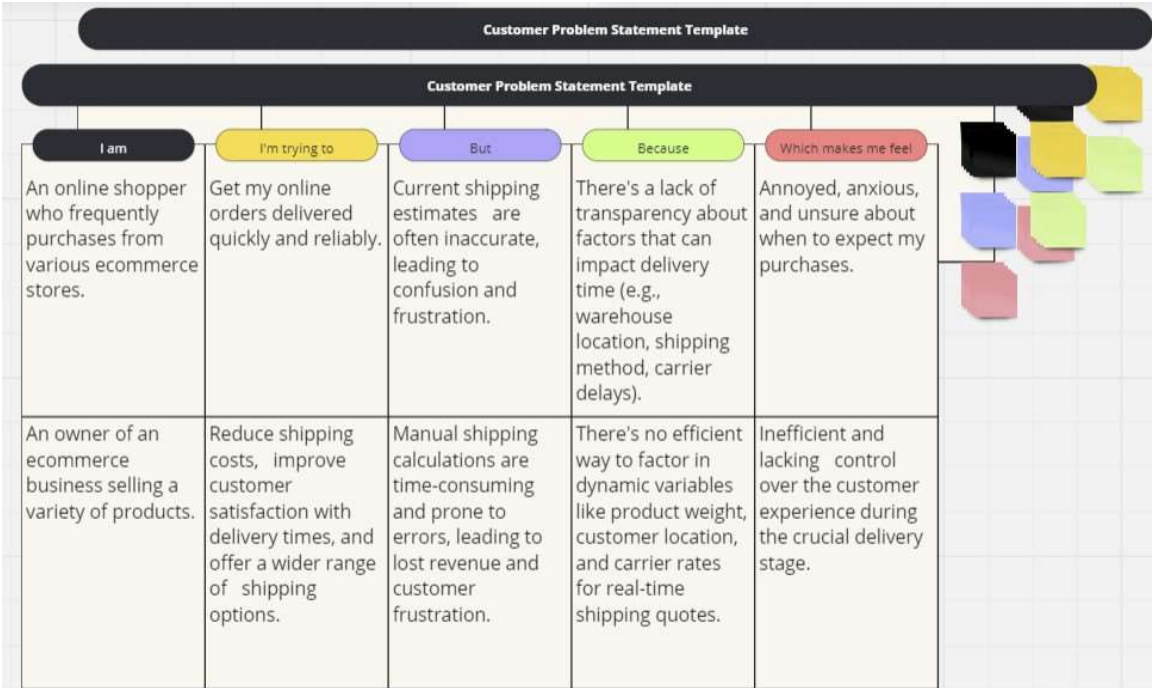
Project Initialization and Planning Phase

Date	05 JULY 2024
Team ID	SWTID1720151584
Project Name	E-Commerce Shipping Prediction Using Machine Learning
Maximum Marks	3 Marks

Problem Statements (Customer Problem Statement Template):

E-commerce businesses face significant challenges in providing accurate shipping time predictions to their customers. Inaccuracies in these predictions often result in customer dissatisfaction, increased service inquiries, and lost sales. Current systems rely on static data and simple rule-based models, failing to account for dynamic factors such as weather conditions, traffic patterns, and unexpected delays. These limitations lead to over-promising and under-delivering, which erodes customer trust and damages brand reputation.

To address this issue, there is a need for a machine learning-based solution that can analyze historical data, real-time logistics information, and external factors to offer precise shipping time predictions. Such a solution would enhance customer satisfaction by providing reliable shipping estimates, thus improving the overall customer experience. Moreover, it would optimize operational efficiency by enabling better management of logistics and resource allocation, ultimately reducing costs associated with customer service and compensations for delays.



Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
I am frustrated by the uncertainty of when my online orders will arrive.	An online shopper who frequently purchases from various ecommerce stores.	Get my online orders delivered quickly and reliably.	Current shipping estimates are often inaccurate, leading to confusion and frustration.	There's a lack of transparency about factors that can impact delivery time (e.g., warehouse location, shipping method, carrier delays).	Annoyed, anxious, and unsure about when to expect my purchases.
I struggle to offer competitive and accurate shipping options to my customers.	An owner of an ecommerce business selling a variety of products.	Reduce shipping costs, improve customer satisfaction with delivery times, and offer a wider range of shipping options.	Manual shipping calculations are time-consuming and prone to errors, leading to lost revenue and customer frustration.	There's no efficient way to factor in dynamic variables like product weight, customer location, and carrier rates for real-time shipping quotes.	Inefficient and lacking control over the customer experience during the crucial delivery stage.