

Model Development Phase Template

Date	10 JULY 2024
Team ID	SWTID1720151584
Project Title	E-Commerce Shipping Prediction Using Machine Learning
Maximum Marks	5 Marks

Feature Selection Report Template

Feature	Description	Selected (Yes/No)	Reasoning
Mode_of_Shipment	Shipping method (Ship, Flight, Road)	No	Customers usually don't know it, so we focused on more important factors.
Warehouse_block	Warehouse location	No	The customer wouldn't be aware of the location and it may not significantly affect delivery time compared to other factors.
Gender	Male/Female	No	There is likely no correlation between a customer's gender and the speed of delivery.
Customer_care_calls	Number of customer service calls	Yes	High customer service calls can flag potential delays, aiding on-time delivery predictions.
Customer_rating	Customer experience rating	Yes	High customer ratings suggest smooth deliveries, aiding on-time predictions.
ID	Customer ID	No	Including customer IDs could raise privacy concerns, especially if the model is trained on sensitive data.
Cost_of_the_Product	Product cost	Yes	Higher product cost can flag potential complexities, aiding on-time delivery predictions.

Prior_purchases	Number of past purchases	Yes	Potentially indicates customer location or order frequency.
Product_importance	Product importance category	Yes	Higher product importance prioritizes handling, ensuring timely delivery.
Discount_offered	Discount applied	Yes	Discounts may signal fulfillment challenges, but aid in predicting on-time deliveries.
Weight_in_gms	Product weight	Yes	Knowing package weight helps us optimize routes and predict on-time deliveries for you.
Reached.on.Time_Y.N	Target variable (Yes/No)	Yes	Yes/No on timely arrival helps predict delivery success.