Model Development Phase Template

Date	15 March 2024
Team ID	SWTID1720116037
Project Title	Ecommerce Shipping Prediction Using Machine Learning
Maximum Marks	5 Marks

Feature Selection Report Template

In the forthcoming update, each feature will be accompanied by a brief description. Users will indicate whether it's selected or not, providing reasoning for their decision. This process will streamline decision-making and enhance transparency in feature selection.

Feature	Description	Selected (Yes/No)	Reasoning
ID	Unique identifier for each shipment or order	No	Because there is no relation between 'order ID' and ' Reached on Time'.
Warehouse_block	Name of the ware house	No	On performing chi-square test the P>0.05 therefore they are not related to the response variable.
Mode_of_Shipment	By which means product is transported	No	On performing chi-square test the P>0.05 therefore they are not related to the response variable.
Customer_Care_ Calls	Calls made by customer or staff	Yes	There is a slight positive correlation between 'cost of products' and 'customer care

			calls'.
Customer_Rating	Rating given by customer	Yes	Customer ratings are crucial. Higher ratings(closer to 5) are linked to timely product delivery.
Cost_of_the_Product	The price of the product being shipped	Yes	Product cost can indirectly affect delivery time, with higher-cost items often receiving more careful handling and shipping.
Prior_Purchases	Number of items customer had already purchased	Yes	From the histogram it is observed to be positively skewed
Product_importance	The number of previous the purchases made by the customer	Yes	It indicates if important products are delivered on time.
Gender	The gender of the customer	No	On performing chi-square test the $P>0.05$ therefore they are not related to the response variable.
Discount_offered	Indicated discounts percentage	Yes	From the histogram it is observed to be as positively skewed.
Weight_in_gms	Indicates Weight of product	Yes	Heavier products need more handling and specialized shipping. Light weight parcels are prioritized, causing longer transit times for heavy items.
Reached_on_Time_Y\N	States whether the product is reached on time or not.	Yes	This is our target column.