Model Development Phase Template

Date	10 July 2024
Team ID	SWTID1720163281
Project Title	Ecommerce Shipping Prediction Using Machine Learning
Maximum Marks	5 Marks

Feature Selection Report Template

The feature selection process for predicting ecommerce delivery times involved analyzing historical shipping data encompassing order details, customer locations, product characteristics, and shipping methods. Through correlation analysis and machine learning techniques like Random Forest and Gradient Boosting, key features were identified based on their impact on delivery time predictions. Features such as distance between shipping and delivery locations, shipping method, and product dimensions emerged as crucial factors influencing accurate predictions. These selected features were deemed essential for enhancing the model's ability to provide reliable estimates of delivery times, thereby improving overall customer satisfaction and operational efficiency in ecommerce logistics.

Feature	Description	Selected (Yes/No)	Reasoning
Distance between Shipping and Delivery Locations	The geographic distance between the warehouse or shipping point and the delivery destination.	Yes	Distance is a significant factor influencing shipping duration, affecting transit times and logistics planning.
Shipping Method	The chosen method of shipment, such as standard ground shipping, expedited shipping, or air freight.	Yes	Different shipping methods have varying delivery timeframes, impacting the overall speed and reliability of order fulfillment.