

Model Development Phase Template

| | |
|---------------|--|
| Date | 5 July 2024 |
| Team ID | SWTID1720082658 |
| 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 | Customer IDs. | No | It doesn't help predict delivery time and could make the model less accurate by adding unnecessary information. |
| Warehouse_block | The Company's Warehouse is segmented into blocks labeled A, B, C, D, and E. | Yes | The warehouse location can affect processing speed and dispatching, which in turn impacts delivery times. |
| Mode_of_Shipment | The Company uses different transportation methods for shipping products (ship, flight, etc). | Yes | Different transit durations and dependability of shipping methods (air, sea, land) make them essential for forecasting timely deliveries. |
| Customer_care_calls | The number of calls made to the service center. | Yes | The likelihood of on-time delivery can be influenced by the number of calls, which may reveal potential issues or delays. |

| | | | |
|------------------------|--|-----|---|
| Customer_rating | The customers rate their experiences. | Yes | Customer feedback can indirectly influence the effectiveness of handling and shipping operations by indicating previous experiences and levels of satisfaction. |
| Cost_of_the_Product | The cost of the product. | Yes | Expensive items might get faster processing and shipping, which can impact how quickly they are delivered. |
| Prior_purchases | The number of prior purchases. | Yes | A customer's buying record can affect the dependability and speed of shipping, since regular customers might be given preferential treatment. |
| Product_importance | The products are categorised into 3 parameters that are low, medium, and high. | Yes | The priority level of a product will tell us how quickly it needs to be shipped and the method used, affecting how fast it arrives. |
| Gender | Male or female. | Yes | A customer's gender could be linked to particular delivery preferences, which might affect delivery times. |
| Discount_offered | Discount offered on a product. | Yes | Products with larger discounts might be sent through slower shipping methods to reduce expenses, thus impacting delivery times. |
| Weight_in_gms | Weight of the product in grams. | Yes | This can influence the choice of shipping methods and transit times, which can affect delivery accuracy. |
| Reached on Time Y.N | It is the target variable (1 - product has not reached on time, 0 – product has reached on time. | Yes | This can affect the selection of shipping methods and transit times, thereby impacting delivery accuracy.. |