**Model Development Phase Template**

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| --- | --- |
| Date | 07-07-2024 |
| Team ID | 739747 |
| Project Title | Customer Shopping Segmentation by 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.

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| **Feature** | **Description** | **Selected (Yes/No)** | **Reasoning** |
| Customer\_ID | Unique identifier for each customer | No | For segmentation, the customer ID itself is not needed, but it can be used to map back to individual customers after clustering |
| Invoice No | Unique identifier for each transaction | No | Unique identifiers are not useful for clustering as they don't provide behavioral insights. |
| Age | Age of the customer | Yes | Age can influence shopping behavior and preferences. |
| Gender | Customers gender | Yes | Gender may impact purchasing habits and product preferences. |

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| --- | --- | --- | --- |
| category | Product category | Yes | Helps in understanding product preferences and buying patterns. |
| price | Total price of the purchase | Yes | Provides insight into spending behavior and can differentiate between high and low spenders. |
| Quantity | Number of items purchased | Yes | Indicates purchase volume, which can be linked to customer value. |
| Payment\_Method | Method used for payment | Yes | Can indicate preferences for payment types and financial behavior. |
| Shopping\_Mall | Can indicate preferences for payment types and financial behavior. | Yes | Different locations may have different customer bases and shopping behaviors. |

