# Model Development Phase Template

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| Date | 20 June 2024 |
| Team ID | 740038 |
| Project Title | Customer Acquisition Cost estimation 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 |
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| Store sales | Sales of the store | Yes | Provides insight into overall performance and revenue generation, correlated with acquisition costs. |
| Unit sales | Sales in units | Yes | Indicates volume of products sold, aiding in understanding demand and purchasing behaviour. |
| Promotion name | Name of the promotion | Yes | Identifies different promotions and their effectiveness in attracting customers. |
| Total children | Total number of children | No | Demographic data less directly relevant to acquisition cost estimation. |
| Num_children_at_home | Number of children at home | No | Demographic data less directly relevant to acquisition cost estimation. |
| Average_cars_at_home | Average cars at home | No | Socioeconomic indicator, but less directly impactful on acquisition costs. |
| Gross_weight | The total weight of a product, including its packaging. | No | Relevant for logistics but less directly tied to customer acquisition costs. |

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| Recyclable_packages | Packaging that can be processed and reused in recycling programs | No | Appeals to environmentally conscious consumers but less impactful on acquisition cost. |
| Low_fats | food products that contain a reduced amount of fat compared to standard versions | No | Targets health-conscious customers, but less directly related to acquisition costs. |
| Units_per_case | number of individual items or units contained within a single case | No | Useful for inventory management but less impactful on acquisition costs. |
| Store_type | The classification or category of the store | Yes | Differentiates store formats which can have varying customer acquisition costs. |
| Store_city | The city where the store is located. | Yes | Geographic location impacts market demographics and local competition. |
| Store_state | The state where the store is located | Yes | Adds another layer of geographic data, helping analyse regional trends and regulations. |

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| Store_sqft | The total square footage of the store, indicating its size. | Yes | Larger stores may attract more customers and have different operational costs. |
| Coffee_bar | section within the store that serves coffee | No | Enhances customer experience but less directly related to acquisition costs. |
| Video_store | A retail establishment that rents or sells videos | No | Less common now, providing limited relevance to current acquisition cost estimation. |
| Salad_bar | A section in a store or restaurant where customers can create their own salads | No | Appeals to health-conscious customers, but less directly related to acquisition costs. |
| Prepared_food | Food that is ready to eat or heat and serve, often found in grocery stores | No | Convenience factor, attracting customers but less directly related to acquisition costs. |
| florist | A shop or business that sells flowers and floral arrangements. | No | Adds variety to offerings but less impactful on acquisition costs. |
| Media_type | The category of content, such as video, audio, or written formats | No | Useful for understanding preferences but less directly impactful on acquisition costs. |

| cost | The price or expense associated with a product or service. | Yes | Fundamental to calculating profitability and customer acquisition costs. |
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