

## Model Development Phase Template

Date	20 June 2024
Team ID	739807
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	<i>Provides insight into overall performance and revenue generation, correlated with acquisition costs.</i>
Unit sales	Sales in units	Yes	<i>Indicates volume of products sold, aiding in understanding demand and purchasing behaviour.</i>
Promotion name	Name of the promotion	Yes	<i>Identifies different promotions and their effectiveness in attracting customers.</i>
Total children	Total number of children	No	<i>Demographic data less directly relevant to acquisition cost estimation.</i>
Num_children_at_home	Number of children at home	No	<i>Demographic data less directly relevant to acquisition cost estimation.</i>
Average_cars_at_home	Average cars at home	No	<i>Socioeconomic indicator, but less directly impactful on acquisition costs.</i>
Gross_weight	<i>The total weight of a product, including its</i>	No	<i>Relevant for logistics but less directly tied to customer acquisition costs.</i>

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

Store_state	<i>The state where the store is located</i>	Yes	<i>Adds another layer of geographic data, helping analyse regional trends and regulations.</i>
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Store_sqft	<i>The total square footage of the store, indicating its size.</i>	Yes	<i>Larger stores may attract more customers and have different operational costs.</i>
Coffee_bar	<i>section within the store that serves coffee</i>	No	<i>Enhances customer experience but less directly related to acquisition costs.</i>
Video_store	<i>A retail establishment that rents or sells videos</i>	No	<i>Less common now, providing limited relevance to current acquisition cost estimation.</i>
Salad_bar	<i>A section in a store or restaurant where customers can create their own salads</i>	No	<i>Appeals to health-conscious customers, but less directly related to acquisition costs.</i>
Prepared_food	<i>Food that is ready to eat or heat and serve, often found in grocery</i>	No	<i>Convenience factor, attracting customers but less directly related to acquisition costs.</i>

	<i>stores</i>		
<i>florist</i>	<i>A shop or business that sells flowers and floral arrangements.</i>	<i>No</i>	<i>Adds variety to offerings but less impactful on acquisition costs.</i>
<i>Media_type</i>	<i>The category of content, such as video, audio, or written formats</i>	<i>No</i>	<i>Useful for understanding preferences but less directly impactful on acquisition costs.</i>

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