

## Model Development Phase Template

Date	20 June 2024
Team ID	740114
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.

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.

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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