# Project title : Customer Segmentation for targeted marketing

**Introduction**

Customer segmentation is like a master key to unlock the doors of successful targeted marketing. Imagine having the ability to peer into the diverse tapestry of your customer base, identifying distinct groups with unique preferences, behaviours, and needs. It's like painting a vivid picture of your audience, each stroke of the brush revealing a new shade of opportunity. In this age of data-driven strategies, customer segmentation is the compass that guides businesses toward precision, helping them tailor their marketing efforts with surgical precision, ensuring that the right message reaches the right audience at the right time

**Problem Statement**

Quickpoint Inc. , a retail company, is gearing up to launch a cutting-edge product into the market. To ensure the success of this launch,effective customer segmentation needs to be performed on related data to identify and understand their target audience so that they can tailor their marketing efforts to reach the right people with the right message.

The segmentation should answer the following questions:

- Who are the potential customers for the new product?
- What are their characteristics, preferences, and behaviours?
- How can they effectively reach and engage with them?

By addressing these questions through customer segmentation, their aim is to optimise their marketing strategy, allocate resources efficiently, and increase the likelihood of a successful product launch.

**Proposed Method**

- Data sourcing or collection : The data would be gotten from cloud data storage platforms such as kaggle and open ML
- Data Cleaning (including Data preprocessing , Data scaling/normalisation,Feature engineering ,Data splitting , e.t.c.)
- Exploratory Data Analysis and data visualisation
- Model Selection (model training , model evaluation, model validation,hyperparameter tuning and model testing)
- Model Deployment
- Documentation

**Proposed Task Delegation**

- Data Sourcing , Cleaning and EDA would be done by **Temitope Ajibade and Oluwabukola Ogunbunmi**
- Model Selection(including training,evaluation,validation and testing ) would be done by **Eniola Adetunji and Obi Kelvin**
- Documentation is delegated to **Muhammad Gimba**

**Proposed Timeline**

Data sourcing - October 16th to October 30th
Data cleaning , EDA and data visualisation - October 31st to November 14th
Model selection, training, evaluation and validation - November 15th to November 28th
Model Deployment - November 29th to December 8th
Documentation and submission - December 8th to December 14th

**List of active members of the team**

- Eniola Adetunji
- Temitope Ajibade
- Obi Kelvin
- Oluwabukola Ogunbunmi
- Muhammad Gimba
- **Femi Ogunbode (Mentor)**

**Conclusion**

A sample of the project was found in this github repository https://github.com/rrizwan98/ML-Projects-Customer-Segmentation/blob/main/mall_customer_segmentation.ipynb and it had some limitations . In the highlighted sample project, there was no instance of data cleaning(garbage in, garbage out) . Our project would involve thorough data cleaning to avoid building a bad or an inconsistent model . Our model would also utilise the best machine learning algorithm to achieve our goal. Our model would be evaluated to make sure it is solving the problem at hand efficiently

References :


- https://www.javatpoint.com/customer-segmentation-using-machine-learning
- https://chat.openai.com/
  https://github.com/rrizwan98/ML-Projects-Customer-Segmentation/blob/main/mall_customer_segmentation.ipynb
- OpenML
- kaggle.com