**Project Initialization and Planning Phase**

|  |  |
| --- | --- |
| Date | 4th July 2024 |
| Team ID | 739983 |
| Project Title | Cost Prediction of Acquiring a Customer |
| Maximum Marks | 3 Marks |

**Project Proposal (Proposed Solution) template**

In using machine learning to predict customer acquisition costs (CAC), advanced algorithms study past data to estimate how much it will cost to get new customers. By looking at patterns in past marketing, sales, and operational data, these models can predict CAC more accurately than older ways of doing it. This helps businesses use their resources better, improve how they market, and make more money from getting new customers.

|  |  |
| --- | --- |
| **Project Overview** | |
| Objective | To Predict the Cost required to acquire a customer for a convenience store or a supermarket. |
| Scope | Cost determines if the customer is or could have the potential to become a Regular customer. |
| **Problem Statement** | |
| Description | To predict the cost that will determine the permanent acquisition of a customer. |
| Impact | Increase in number of customers on a daily basis which leads to increase in sales and profits quarterly. |
| **Proposed Solution** | |
| Approach | Using the data of sales and customers through the dataset and run Machine Learning(ML) model to predict the cost of acquiring a new customer. |
| Key Features | The ML model uses particular parameters, eg; store city, food category etc.. to determine new customer’s cost. |

**Resource Requirements**

|  |  |  |
| --- | --- | --- |
| **Resource Type** | **Description** | **Specification/Allocation** |
| **Hardware** | | |
| Computing Resources | CPU/GPU specifications, number of cores | e.g., 11thGen Intel(R) Core i3, 2 |
| Memory | RAM specifications | e.g., 8 GB |
| Storage | Disk space for data, models, and logs | e.g., 1 TB SSD |
| **Software** | | |
| Frameworks | Python frameworks | e.g., Flask |
| Libraries | Additional libraries | e.g., numpy,pandas,sklearn.. |
| Development Environment | IDE, version control | e.g., Google Colab,Spyder |
| **Data** | | |
| Data | Source, size, format | e.g., Kaggle dataset, excel sheet |