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Team & Contact Info

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Detailed Approach

1. Problem Statement

Breifly describe the business problem that needs to be addressed as part of the project

Business Context:

Marketers and Customer Relationship Management (CRM) specialists have access to rich data o
challenge is effective utilisation of these data in CRM processes and selection of appropriate dat

änd hidden patterns in data. It is a useful tool for sales managers to extract the data insights in CI
analytical tools and techciques that are available for sales managers for continuous improvement
CRM has gained momentum in recent times due to improvement of computing technologies. In th
globalised economies, and highly competitive markets, transformation from a product-centric foc
is, therefore, required. Customers expect personalised products and services because they know
them and the opportunity exists to provide customisation.

This can be achieved by using The data mining (DM) techniques can help sales and Marketing tea
unknown customer information from customer data and, thus, achieve effective CRM.

Demographic, socioeconomic or geographic characteristics of the customers are the traditionally
customer analysis. Customer intelligence data mining models may be the most powerful and sim
leads in most of the organizations. Data analytics, supported by CRM, can be used throughout the
customer behaviour and purchasing patterns to identifying trends in sales activities. Data analytic
responses to real time shifts in customer actions and behaviour. As usage matured, requirements
event-driven alerts, and operational decision support have become the norm.

Business Problem:

To be able to generate effective and successful lead, organizations must have ability to manage th
and information in a systematic way. Sales and accounts teams must be able to leverage various
data insights across gerographies and industry verticals within the organization.

It is, therefore, necessary to analyse the data around CRM process which will help business to opt
while maintaining a healthy sales pipeline.

2. Dataset

The CRM dataset is obtained from a public domain and is made available in Google drive shared f
to the dataset.

The dataset comprises of 5 .csv äles.

Each of the äles contains multiple different column features/data attributes.

Our task would be to carry out our Exploratory Data Analysis (EDA) and extact the useful business
marketing teams for sustained business development.

Features:

1. clicks.csv – Contains 3 columns as follows:

Created_On: Date when the sales order is created in CRM system

Source: Channel through which sale leads are generated

Industry: Industry vertical/sector

2. products_.csv – Contains 2 columns as follows:

Product: Name of products being offered

Sales_Price: Offer price of a product in a given currency

3. accounts.csv – Contains 3 columns as follows:

Account: Name of the account within the organization

Revenue: Total value of sales within an account in a given currency

Employees: Count of employees working in a given account

4. sales-pipeline.csv – Contains 8 columns as follows:

Account: Name of the account within the organization

Opportunity_ID: Identifier assigned against the sales opportunity

Sales_Agent: Name of the agent responsible for creating the opportunity

Deal_Stage: Current status of the deal

Product: Name of products being offered

Close_Date: Date by when the sales deal is closed

Close_Value: Value of sales when the deal is closed

Created_On: Date when the sales order is created in CRM system

5. sales-teams.csv – Contains 3 columns as follows:

Sales_Agent: Name of the agent responsible for creating the opportunity

Manager: Name of the Manager representing the Sales Agent

Regional_Office: Location of the regional office the Sales Agent operates from

3. Design Thinking

Brainstorm the resources and bring out your thought process here as to how we can address the l
mutiple differenent ideas and proposed solutions. Let's write down those in the form of workflows

Double-click (or enter) to edit

4. Literature Survey

Collect all relevant information resources and URLs addressing similar problems and their associ

- https://towardsdatascience.com/how-to-deploy-your-data-science-as-web-apps-easily-with-
- https://www.techedgegroup.com/blog/data-science-process-problem-statement-definition

- https://openviewpartners.com/blog/how-to-conduct-crm-data-analysis/#.Xs4dzTozbIU

5. Exploratory Data Analysis (EDA)

- Understand the types of data
- List down the business questions to be answered to derive data insights
- Perform descriptive data anaylysis (statistical)
- Data pre-processing / cleansing both for numerical and categorical variables
- Visualize the data (Try to use plotly for interactive visualizations)
- Describe the approach being applied and findings for the respective business questions

Add Colab link here:

6. Conclusions

Summarize your findings in terms of actionable insights (bulletted)

- List item
- List item

7. Creating files and documentation

- Create notebook files with appropriate nomenclature and version control. Later we will look either in heroku or in the Cloud.
- Add Colab link here:
    - Link

Project Plan

This would involve the following: List down all activities alongwith timeline eg.,

collection of reference resources, list of tasks to be performed for EDA, list of tasks to be perform etc.

Each of the activities will have start date and end date. Monitor and track the progress the tasks/a

Click here to access Project Plan Tracker and Gantt Chart.