

**TABLEAU PROJECT**

**ON**

**CUSTOMER CHURN ANALYSIS**

DONE

BY

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**Description:**

A certain bank in North America wants to perform customer churn analysis, as the credit card business of the bank is not performing very well. Churn analysis will help the bank evaluate the customers who have stopped purchasing the credit card of the bank and figure out measures to reduce the banks customer loss rate.

**Data Dictionary**

1. CLIENTNUM: Client number. Unique identifier for the customer holding the

account.

2. Attrition\_Flag: Internal event (customer activity) variable. If the account is

closed, then it is 1, otherwise it is 0.

3. Customer\_Age: Demographic variable - Customer's age in years

4. Gender: Demographic variable - M=Male, F=Female

5. Dependent\_count: Demographic variable - Number of dependents

6. Education\_Level: Demographic variable - Educational qualification of the

account holder (example: high school, college graduate, etc.)

7. Marital\_Status: Demographic variable - Married, Single, Divorced, Unknown

8. Income\_Category: Demographic variable - Annual income category of the

account holder (< $40K, $40K - 60K, $60K - $80K, $80K-$120K, > $120K,

Unknown)

9. Card\_Category: Product Variable - Type of card (Blue, Silver, Gold, Platinum)

10. Region: The region to which the account holder belongs

11. Months\_on\_book: The period since the loan is purchased

12. Total\_Relationship\_count: Years of relationship with the bank

13. Months\_Inactive\_12\_mon: Months of inactivity in the last 12 months

14. Contacts\_Count\_12\_mon: Contact made by bank in the last 12 months

15. Credit\_Limit: Credit limit offered by the bank on the card

16. Total\_Revolving\_Bal: Balance that carries over month to month

17. Avg\_Open\_to\_Buy: Difference between the credit limit assigned to a card

holder and the present balance on the account

18. Total\_Trans\_Amt: The total amount transacted by the customer

19. Total\_Trans\_Ct: The total number of transactions by the card holder(Last 12

months).

20. Average\_Utilzation\_Ratio: Utilization of card and calculated average

* First need to do Data pre-processing in python for that import .csv file into the python jupyter notebook.
* After importing the file display all the columns of the data and separate the categorical and numerical columns.
* To find the outliers in the dataset used the boxplot to identify the outliers of all the continuous columns on the dataset.
* Replaced the outliers using IQR method for columns which are having outliers.
* Identified the nulls in the dataset using isnull().sum() function.
* Replaced the nulls values with mode by data imputation technique.
* After data pre-processing fetch the dataframe to a .csv file so that we can make charts and graphs analysis in the tableau.
* Now connect the file to tableau using Text file.
* **Task 1:** For displaying the percentage of attrited and existing customers used the piechart.
* **Task 2:** For displaying gender wise percentage of attrited customers used piechart.
* **Task 3:** For displaying the region wise percentage of attrited and existing customers used stacked bar chart.
* **Task 4:** For displaying the card category wise attrited and existing customers I have used stacked bar chart.
* **Task 5:** For displaying the income category wise attrited and existing customers I have used stacked bar chart.