**Task-1**

# Download the Dataset:

## Churn\_Modelling.csv

**Task-2:**

# Load the Dataset:

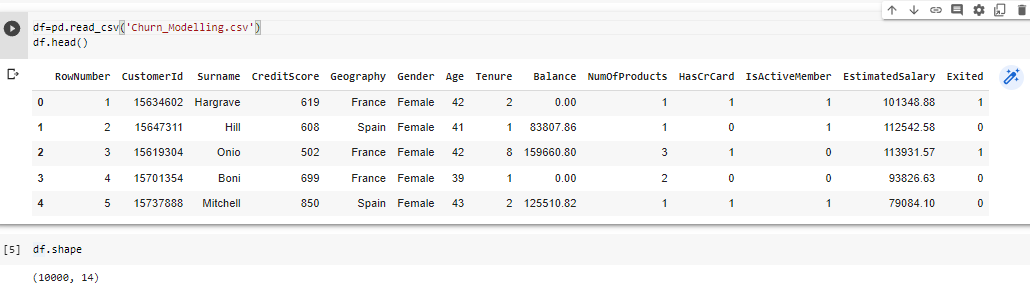
Solution:

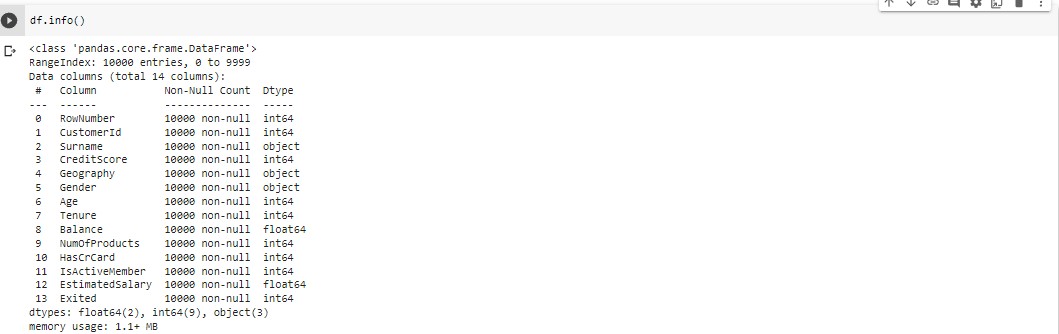
import numpy as np import pandas as pd

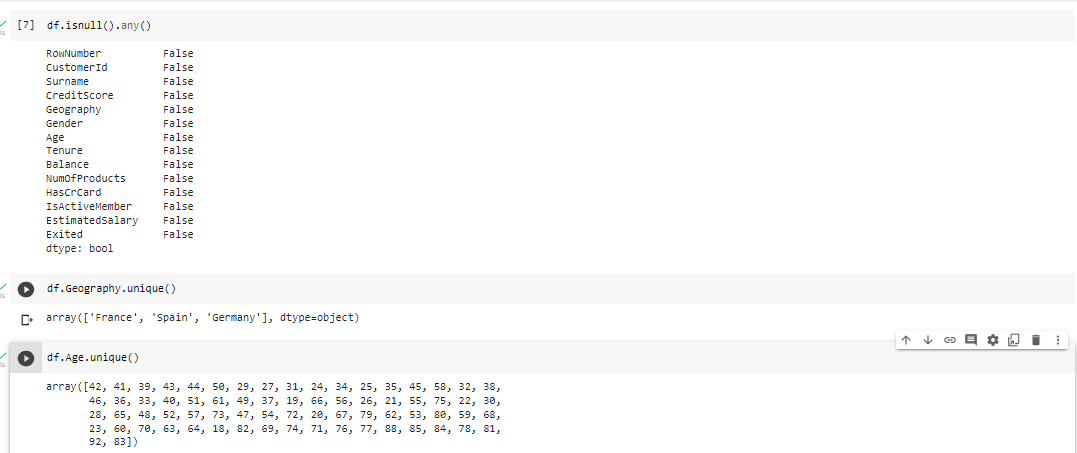
import matplotlib.pyplot as plt import seaborn as sns

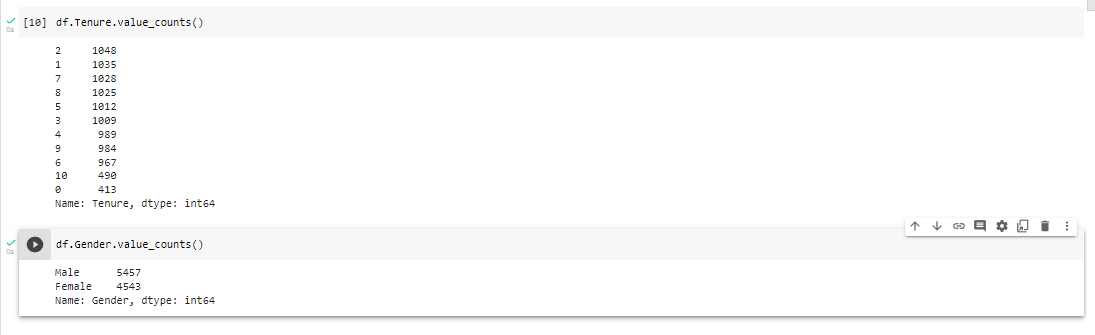
import matplotlib as rcParams

df=pd.read\_csv('Churn\_Modelling.csv') df.head()









**Task-3:**

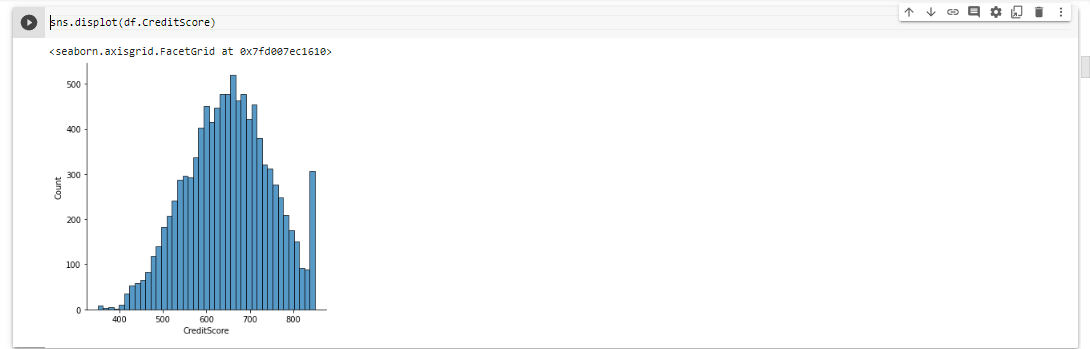
# Perform Below Visualizations.

* + Univariate Analysis
  + Bi - Variate Analysis
  + Multi - Variate Analysis

## Univaíiate Analysis:

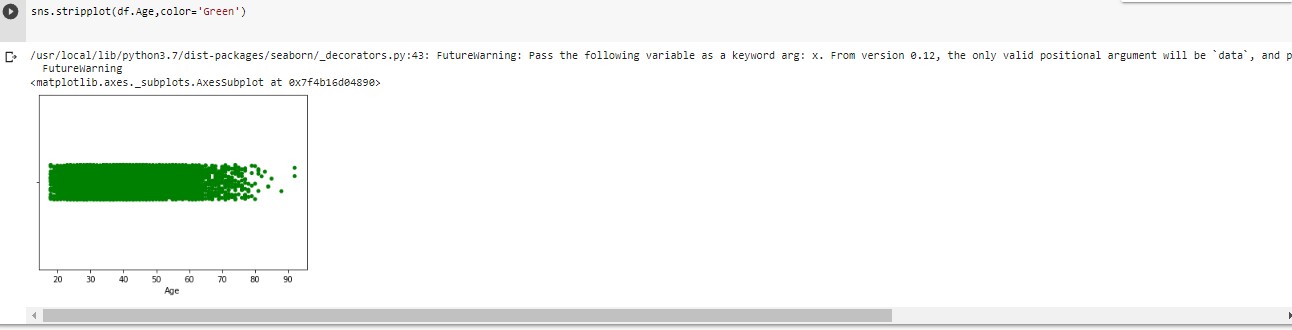
SOLUTION:

sns.displot(df.CreditScore)

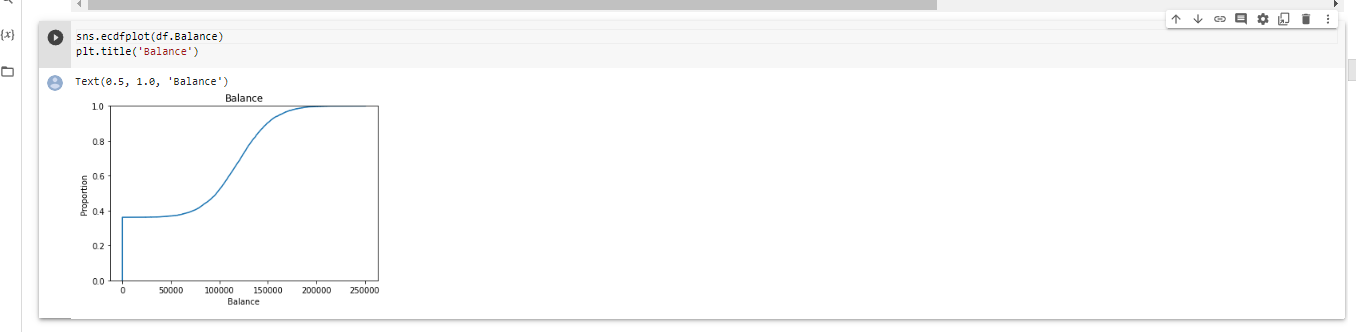


plt.pie(df.Geography.value\_counts(),[0,0.2,0],shadow='True',autopct="1%.1f%%") #categ orial column

sns.stripplot(df.Age,color='Green')



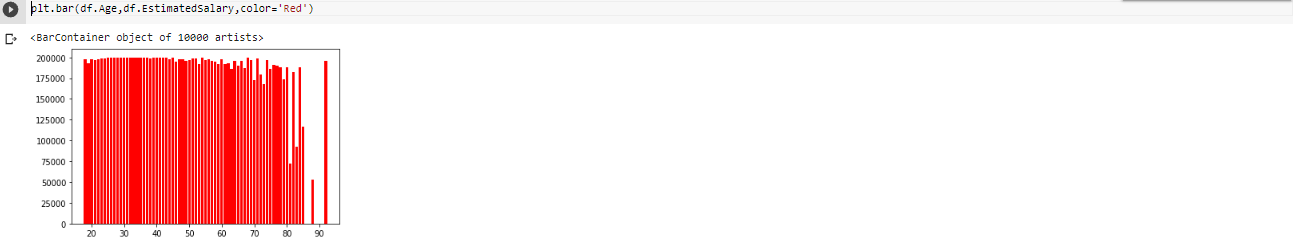
sns.ecdfplot(df.Balance)

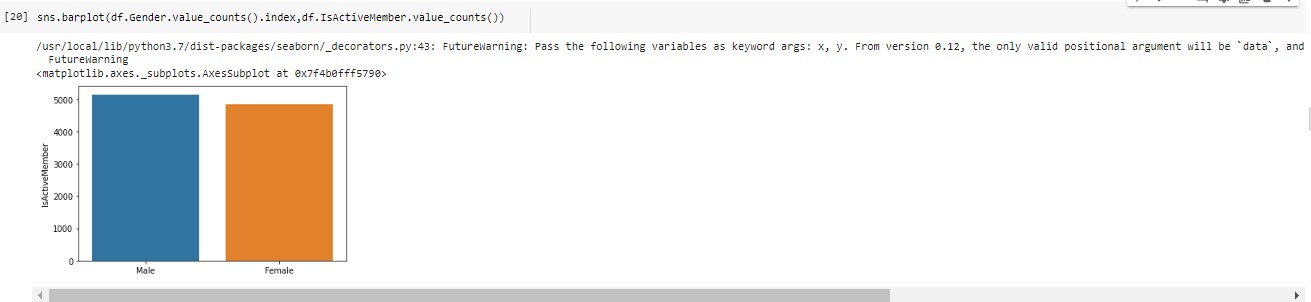


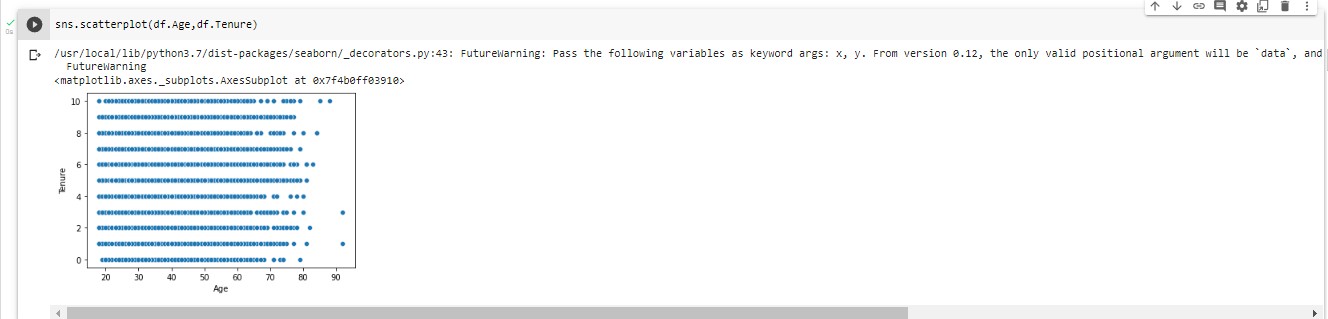
## Bi-vaíiate Analysis:

SOLUTION**:**

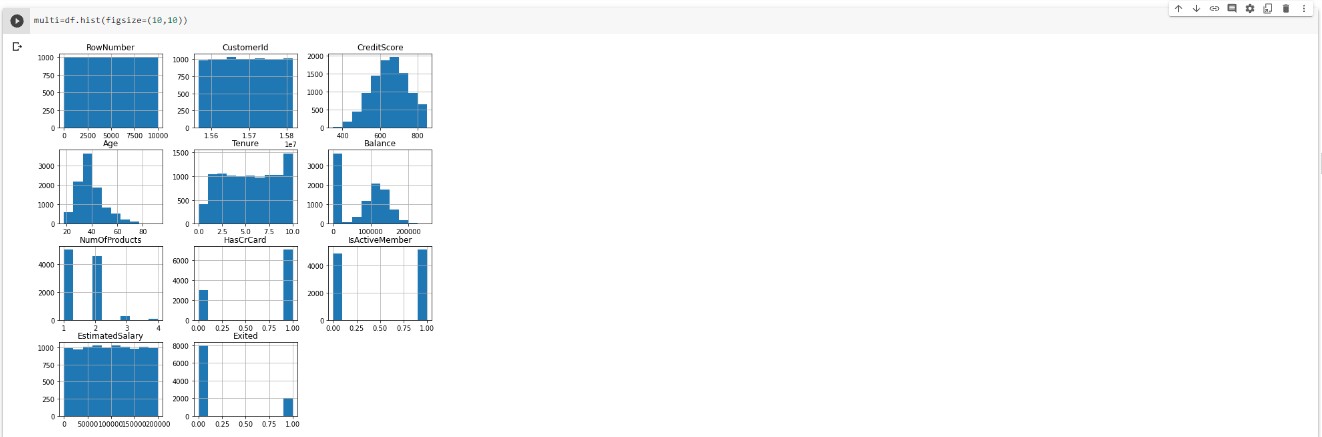
plt.bar(df.Age,df.EstimatedSalary,color='Red')



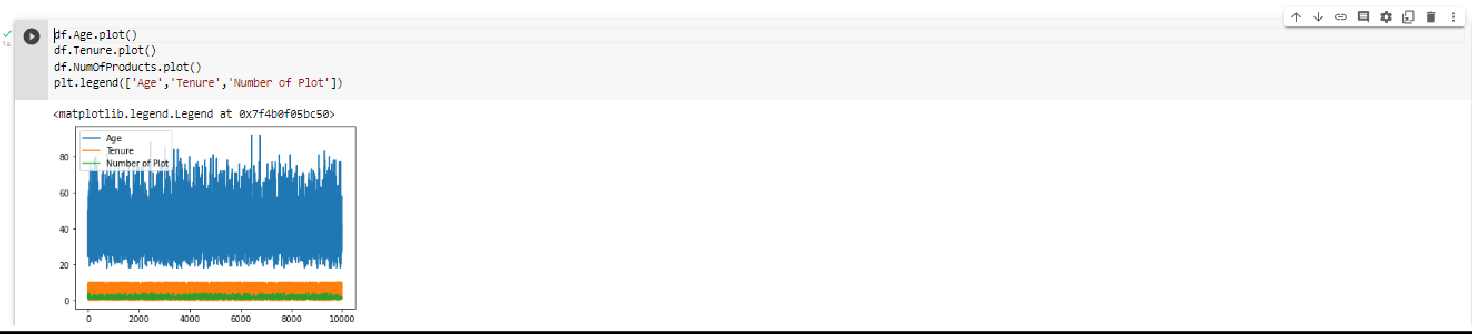


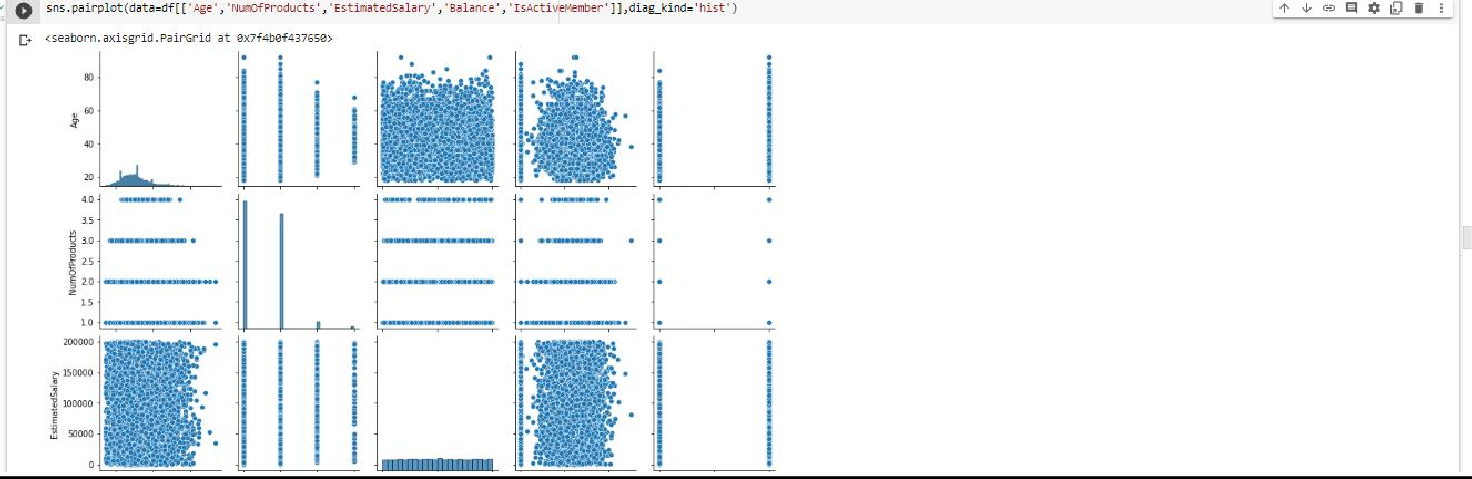


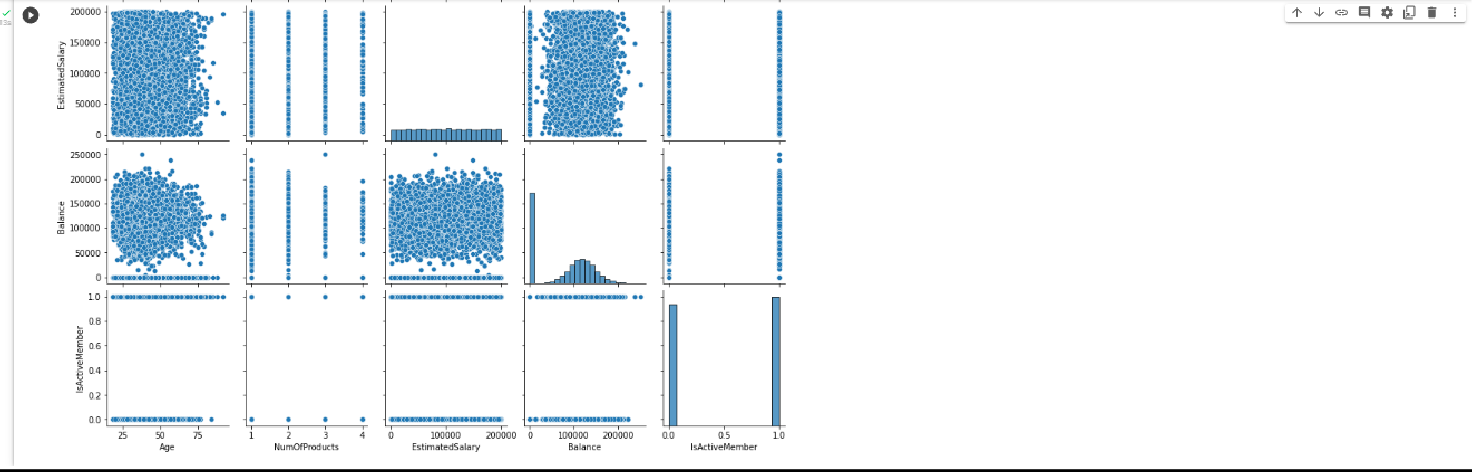
**Multi-Variate Analysis:**





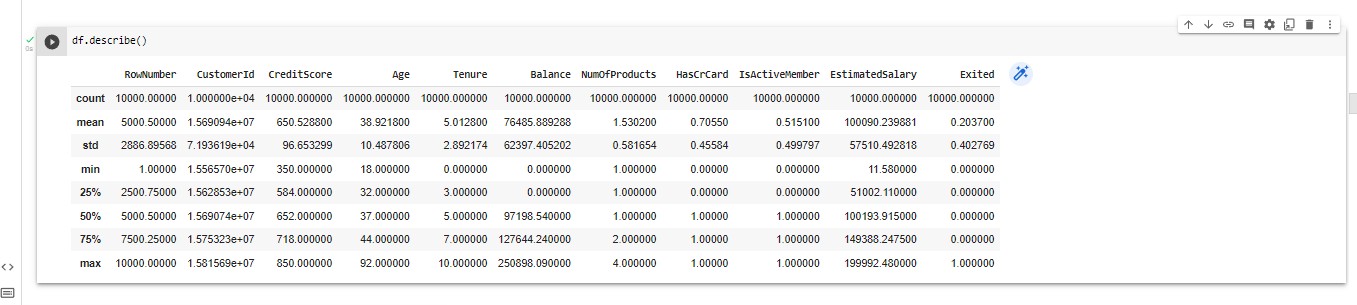




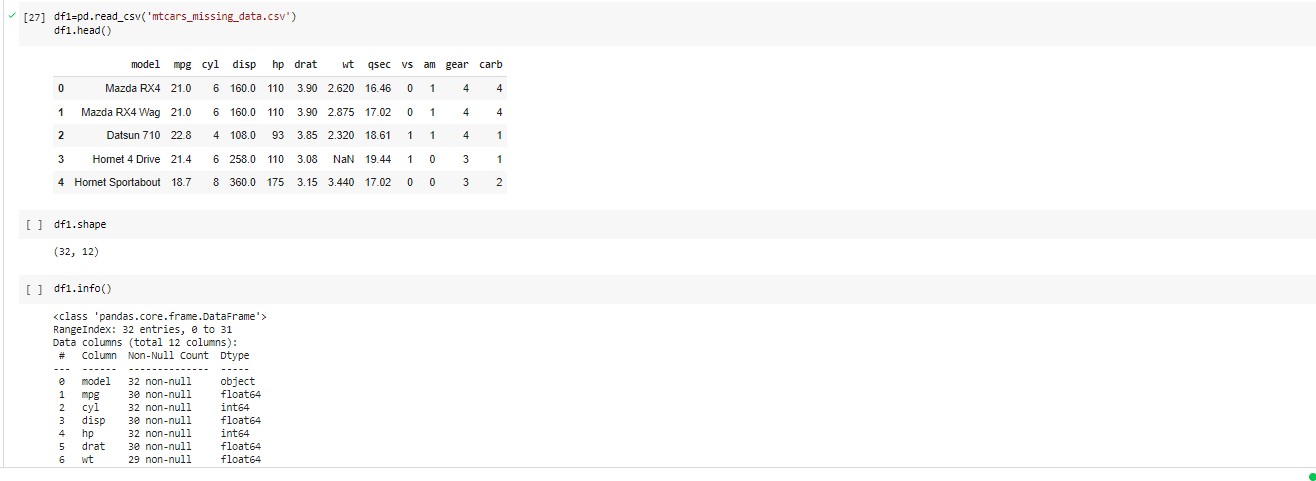


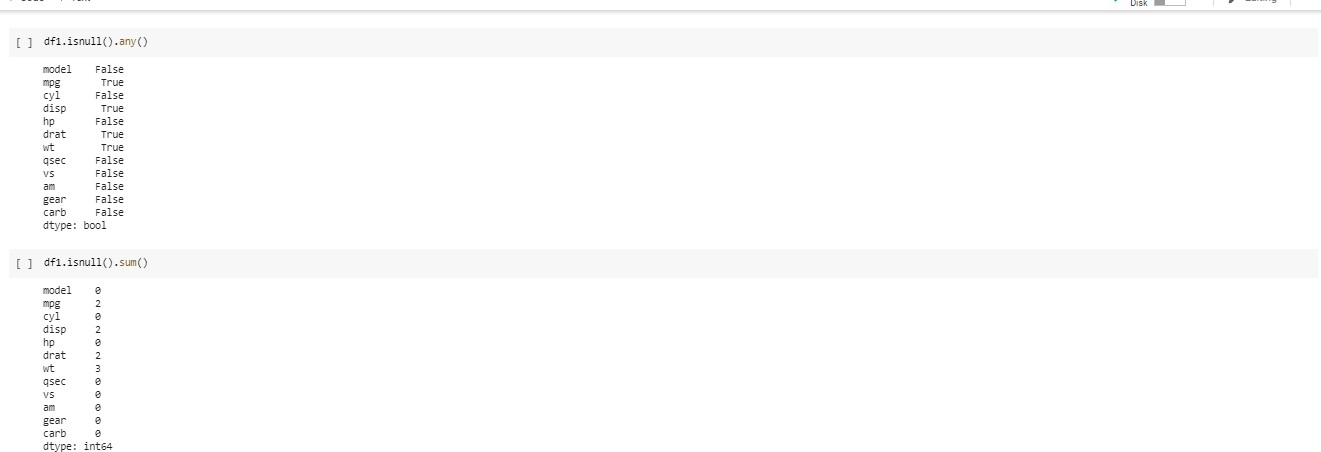
**Task-4:**

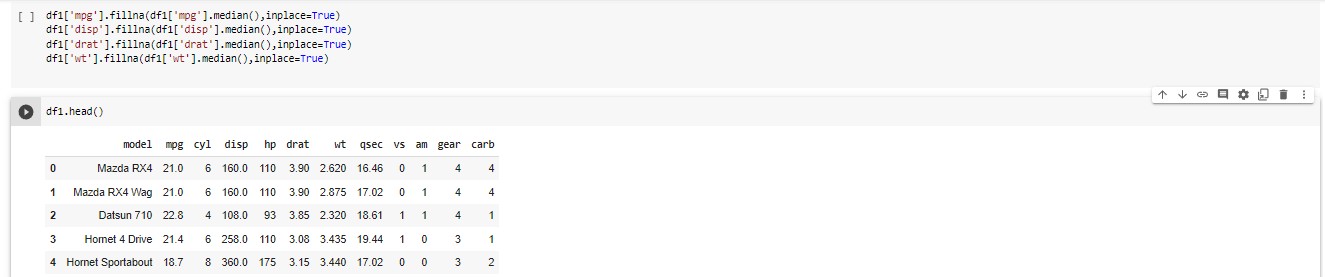
**Descriptive Statistic**



**Task-5:**

**Handle the Missing Data:**





**Task-6:**

**Outliers Replacement:**



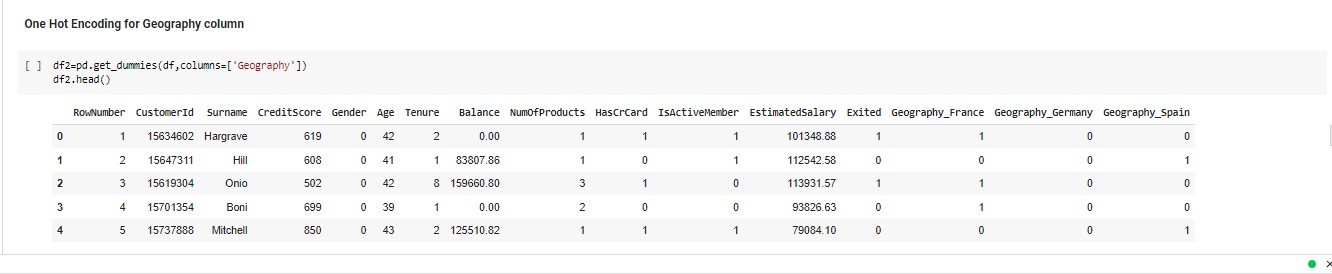
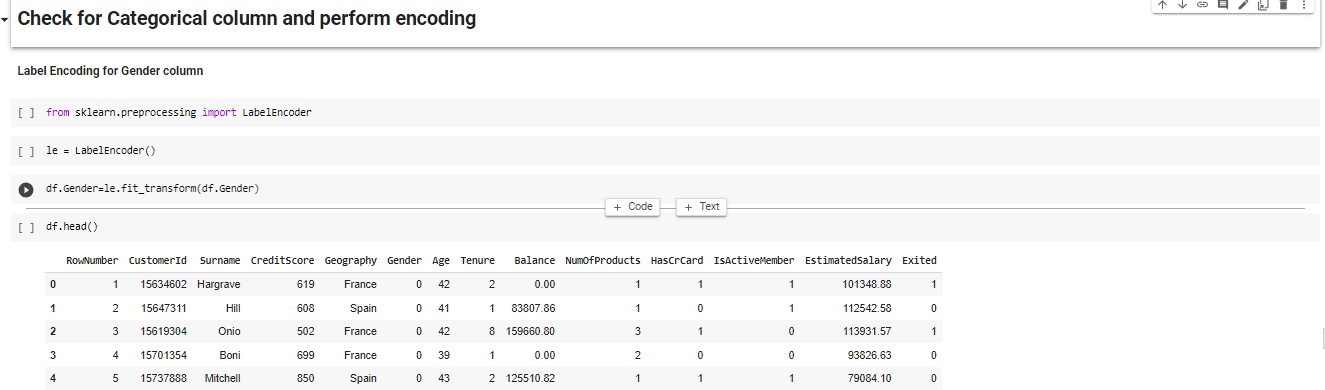
IQR = q3-q1

upper\_limit=q3 + 1.5 \* IQR

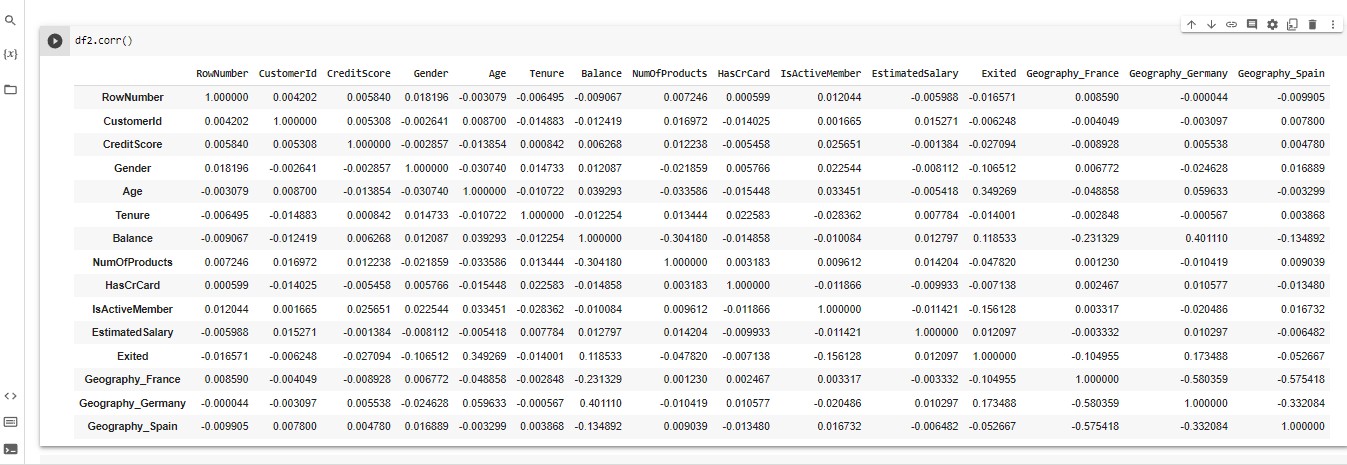


**Task-7:**

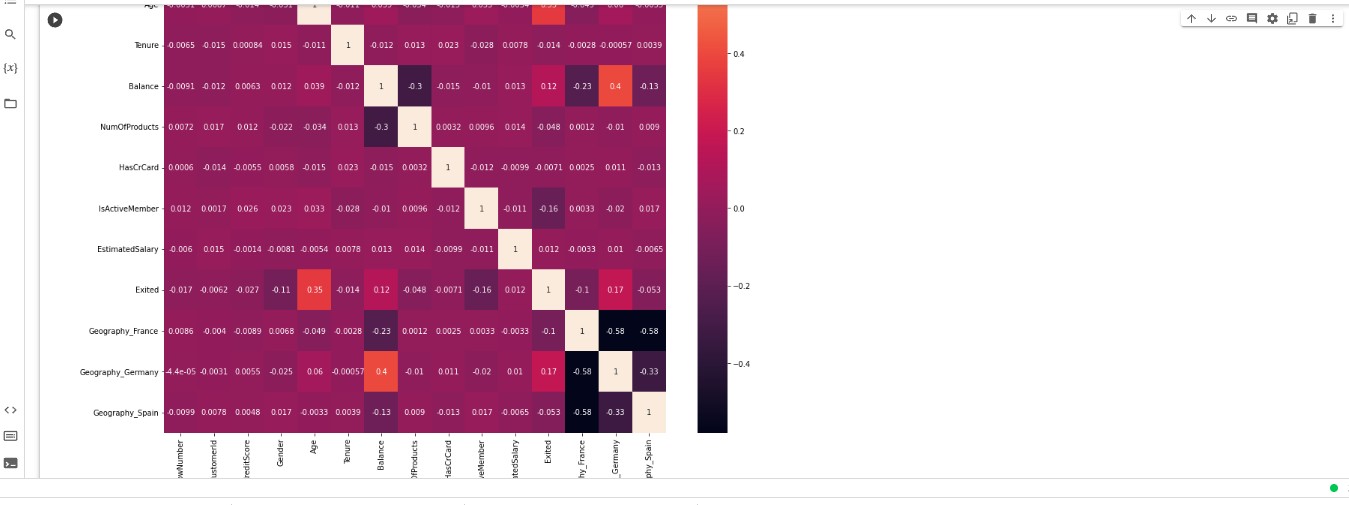
**Check for Categorical column and perform encoding:**



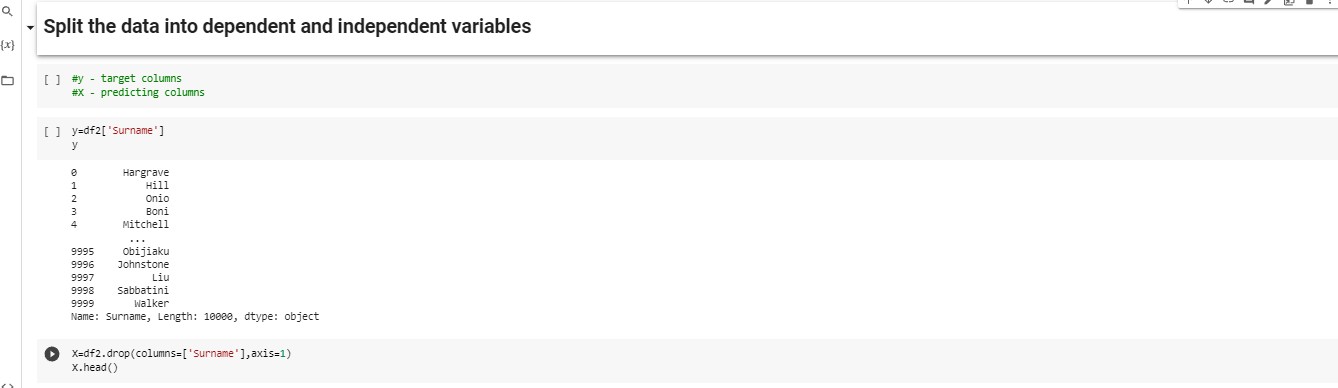
**Task-7: Correlation:**

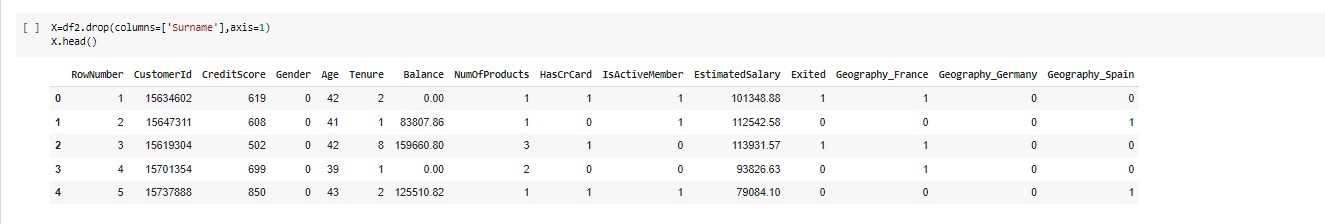




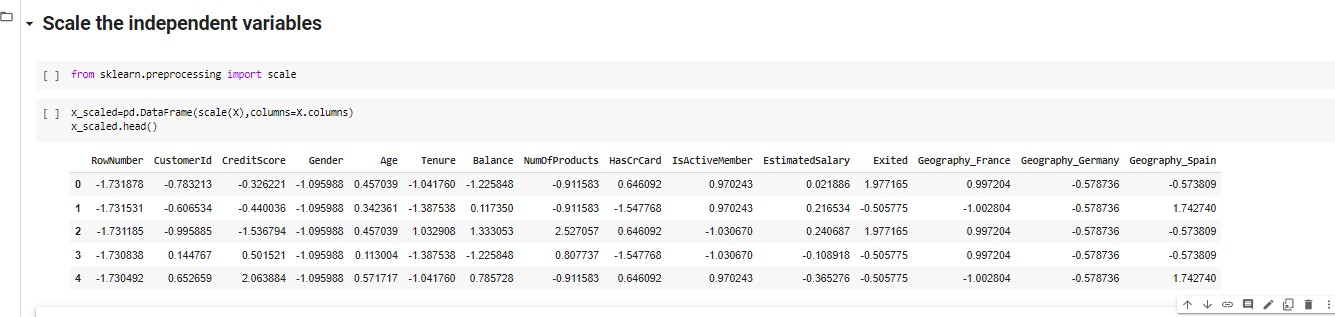


**Task-8**

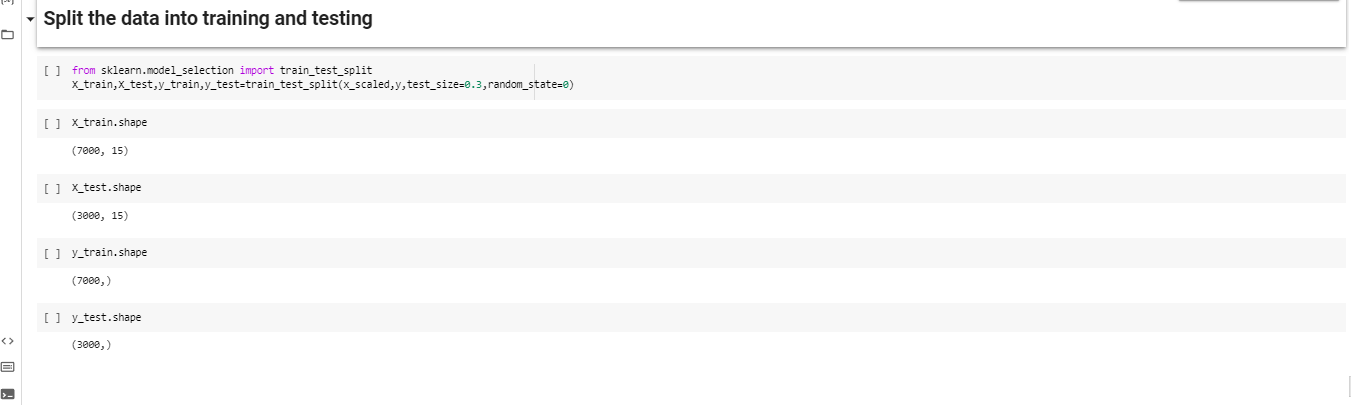
**Split the data into dependent and independent variables:**



**Task-9:**

**Scale the independent variables:**

**Task-10:**

**Split the data into training and testing:**