

```
#!/usr/bin/env python
```

```
# coding: utf-8
```

```
# In[37]:
```

```
#IMPORTING THE libraries
```

```
import pandas as pd
```

```
import numpy as np
```

```
import seaborn as sns
```

```
import matplotlib.pyplot as plt
```

```
from sklearn.preprocessing import StandardScaler
```

```
# In[2]:
```

```
#importing the dataset
```

```
df=pd.read_csv(r"E:\assignment2\Churn_Modelling.csv")
```

```
# In[29]:
```

```
#PERFORM VISUALIZATION
```

```
#univariate analysis
```

```
df.nunique()
```

```
# In[30]:
```

```
#univariate analysis
```

```
df.head()
```

```
# In[27]:
```

```
#Bi-variate analysis
```

```
sns.FacetGrid(df,hue="IsActiveMember",size=5)
```

```
plt.show()
```

```
# In[21]:
```

```
#multi-variate analysis
```

```
sns.pairplot(df, hue="IsActiveMember", height=2)
```

```
# In[6]:
```

```
#DESCRIPTION STATICS ON THE DATASET
```

```
df.describe()
```

```
# In[12]:
```

```
#HANDLE THE MISSING VALUES
```

```
df.isnull().sum
```

```
# In[13]:
```

```
#HANDLE THE MISSING VALUES
```

```
df.isnull().sum().sum()
```

```
# In[18]:
```

```
#CHECKS FOR THE CATEGORICAL COLUMNS AND PERFORM ENCODING
```

```
df.columns
```

```
# In[33]:
```

```
#SPLIT THE DATA INTO DEPENDENT AND INDEPENDENT VARIABLES
```

```
X = df.iloc[:, :2].values
```

```
print(X)
```

```
# In[36]:
```

```
#Extracting the Dataset to Get the Dependent variable
```

```
Y = df.iloc[:, :2].values
```

```
print(Y)
```

```
# In[42]:
```

```
#SCALE THE INDEPENDENT VARIABLES
```

```
# Initialise the Scaler
```

```
scaler = StandardScaler()
```

```
# In[51]:
```

```
#SPLIT THE DATA INTO TRAINING AND TESTING
```

```
from sklearn.model_selection import train_test_split
```

```
x_train,x_test,y_train,y_test=train_test_split(x,y,test_size=2,random_state=0.2)
```

```
# In[ ]:
```