

- 1) Write a flask program which should display Name , Email, phone and it should display the same details once we hit submit.
- 2) Write a flask program which should cover cookies, sessions
- 3) Write a flask program which should display resume details and also have upload resume option by using file uploading.

```
from google.colab import drive
```

```
drive.mount('/content/drive')
```

```
import pandas as pd
```

```
import numpy as np
```

```
import sklearn as sk
```

```
import seaborn as sns
```

```
data=pd.read_csv("/content/Churn_Modelling Dataset2.csv")
```

```
df=data.head(10)
```

Univariate Analysis

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

```
plt.bar (df['Age'],4)
```

Bivariate Analysis

```
plt.scatter(df['Age'],df['CreditScore'])
```

Multivariate analysis

```
plt.scatter(df['Age'],df['CreditScore'],df['Tenure'])
```

Descriptive statistics on the dataset

```
data.describe()
```

Handling Missing values

```
data.isnull().sum()
```

Find the outliers and replace the outliers

Finding Outliers

```
sns.boxplot(data['Age'])
```

Replacing outliers

```
q=data.quantile(q=[0.75,0.5])
```

```
iqr=q.iloc[0]-q.iloc[1]
```

```
iqr
```

```
l=q.iloc[1]-(1.5*iqr)
```

```
l['Age']
```

```
u=q.iloc[1]+(1.5*iqr)
```

```
u['Age']
```

```
data['Age']=np.where(data['Age']>u['Age'],u['Age'],np.where(data['Age']<l['Age'],l['Age'],data['Age']))
```

```
sns.boxplot(data['Age'])
```

Check for Categorical columns and perform encoding.

```
df.info()
```

```
from sklearn.preprocessing import LabelEncoder
```

```
from collections import Counter as count
```

```
le=LabelEncoder()
```

```
data['Surname']=le.fit_transform(data['Surname'])
```

```
data
```

```
data['Geography']=le.fit_transform(data['Geography'])
```

```
data['Gender']=data['Gender'].replace(['Male','Female'],[0,1])
```

```
data
```

Split the data into dependent and independent variables.

Independent Variables

```
x=data.iloc[:,0:13]
```

```
x
```

Dependent Variables

```
y=data['Exited']
```

```
y
```

Scale the independent variables

```
from sklearn.preprocessing import scale
```

```
scale(x)
```

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=0.2)
```

```
x_train
```

```
x_train.shape
```

```
y_train
```

y_train.shape

x_test

x_test.shape

y_test

y_test.shape