```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
```

```
import warnings
warnings.filterwarnings('ignore')
```

```
df=pd.read_csv('/content/Churn_Modelling.csv')
```

```
df.head()
```

	RowNumber	CustomerId	Surname	CreditScore	Geography	Gender	Age	Tenure
0	1	15634602	Hargrave	619	France	Female	42	2
1	2	15647311	Hill	608	Spain	Female	41	1
2	3	15619304	Onio	502	France	Female	42	8
3	4	15701354	Boni	699	France	Female	39	1
4	5	15737888	Mitchell	850	Spain	Female	43	2

```
df.describe()
```

	RowNumber	CustomerId	CreditScore	Age	Tenure	Balar
count	10000.00000	1.000000e+04	10000.000000	10000.000000	10000.000000	10000.000(
mean	5000.50000	1.569094e+07	650.528800	38.921800	5.012800	76485.889
std	2886.89568	7.193619e+04	96.653299	10.487806	2.892174	62397.405
min	1.00000	1.556570e+07	350.000000	18.000000	0.000000	0.000(
25%	2500.75000	1.562853e+07	584.000000	32.000000	3.000000	0.000(
50%	5000.50000	1.569074e+07	652.000000	37.000000	5.000000	97198.540(
75%	7500.25000	1.575323e+07	718.000000	44.000000	7.000000	127644.240(
max	10000.00000	1.581569e+07	850.000000	92.000000	10.000000	250898.090(

```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 10000 entries, 0 to 9999
```

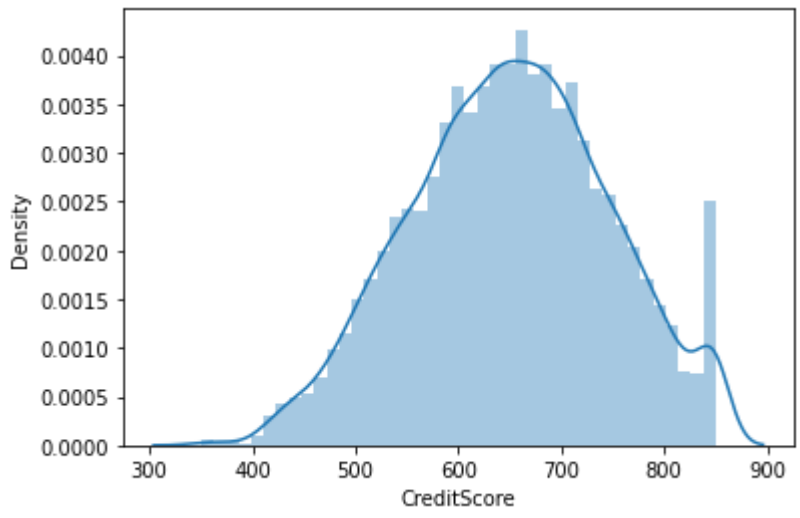
```
Data columns (total 14 columns):
 #   Column           Non-Null Count  Dtype  
---  ------           --------------  -----  
 0   RowNumber        10000 non-null  int64  
 1   CustomerId       10000 non-null  int64  
 2   Surname          10000 non-null  object 
 3   CreditScore      10000 non-null  int64  
 4   Geography        10000 non-null  object 
 5   Gender           10000 non-null  object 
 6   Age              10000 non-null  int64  
 7   Tenure           10000 non-null  int64  
 8   Balance          10000 non-null  float64
 9   NumOfProducts    10000 non-null  int64  
 10  HasCrCard        10000 non-null  int64  
 11  IsActiveMember   10000 non-null  int64  
 12  EstimatedSalary  10000 non-null  float64
 13  Exited           10000 non-null  int64  
dtypes: float64(2), int64(9), object(3)
memory usage: 1.1+ MB
```

```
df.head(2)
```

	RowNumber	CustomerId	Surname	CreditScore	Geography	Gender	Age	Tenu
0	1	15634602	Hargrave	619	France	Female	42	
1	2	15647311	Hill	608	Spain	Female	41	

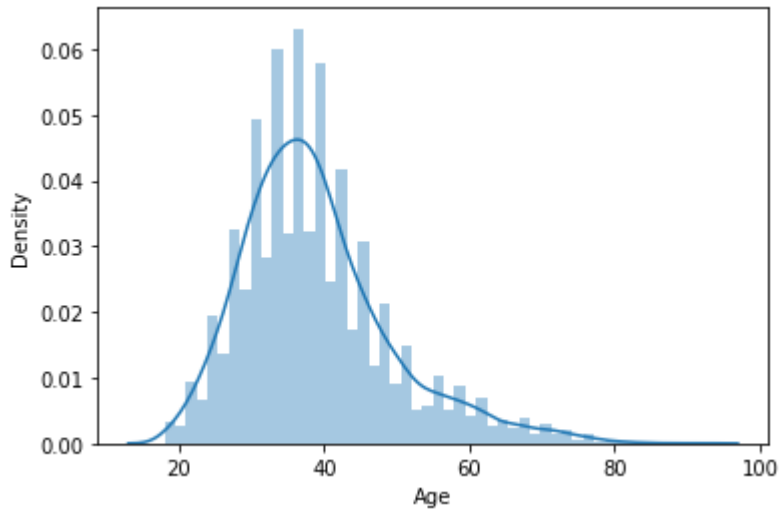
```
sns.distplot(df.CreditScore)
```

```
<matplotlib.axes._subplots.AxesSubplot at 0x7f0fe7b3e310>
```



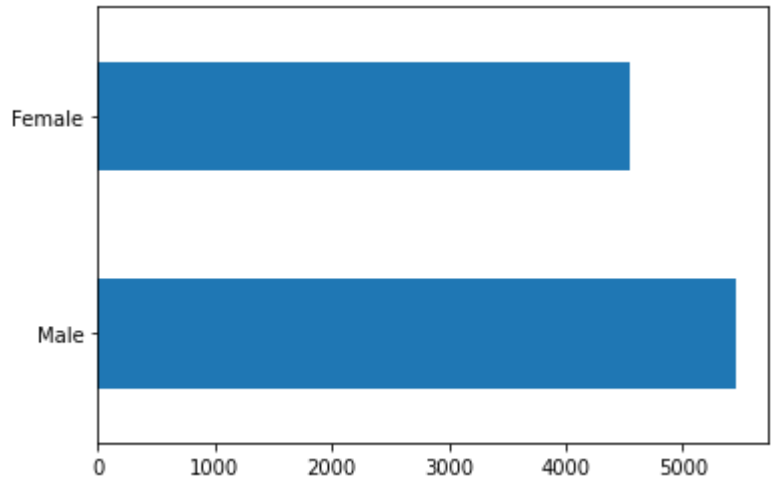

```
sns.distplot(df.Age)
```

```
<matplotlib.axes._subplots.AxesSubplot at 0x7f0fe7a29c90>
```



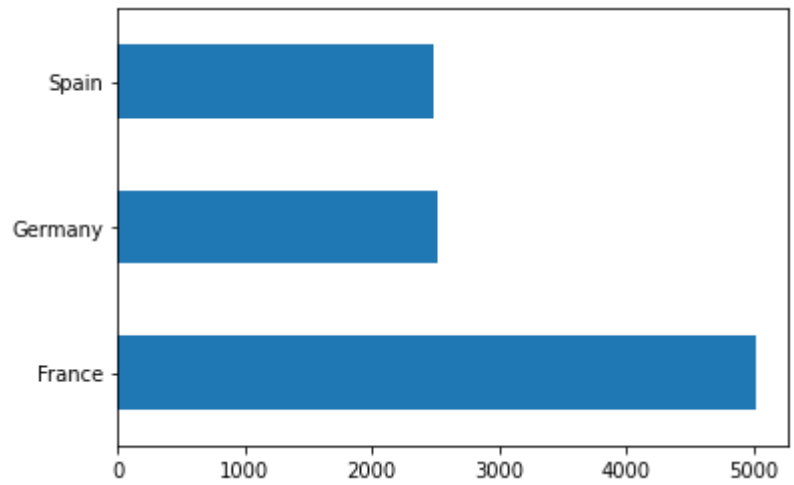

```
df.Gender.value_counts().plot(kind='barh')
```

```
<matplotlib.axes._subplots.AxesSubplot at 0x7f0fe74462d0>
```



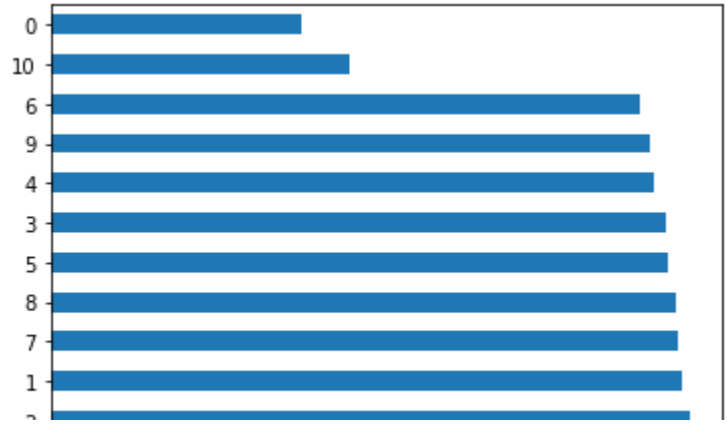

```
df.Geography.value_counts().plot(kind='barh')
```

```
<matplotlib.axes._subplots.AxesSubplot at 0x7f0fe7411110>
```



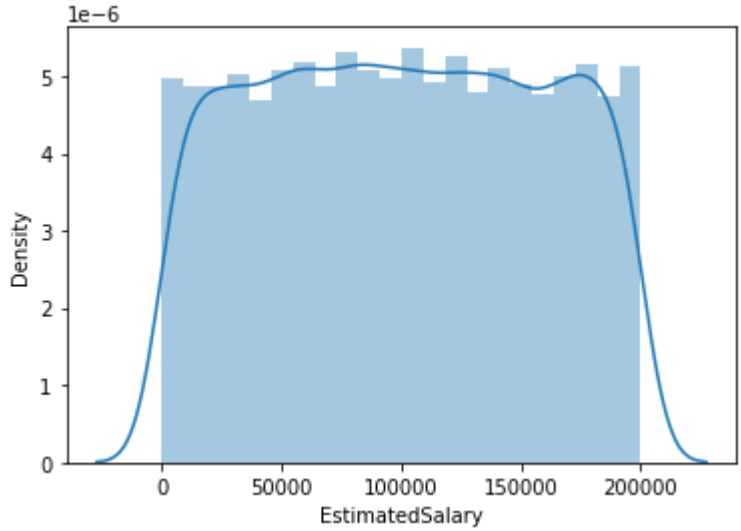

```
df.Tenure.value_counts().plot(kind='barh')
```

```
<matplotlib.axes._subplots.AxesSubplot at 0x7f0fe7334b90>
```



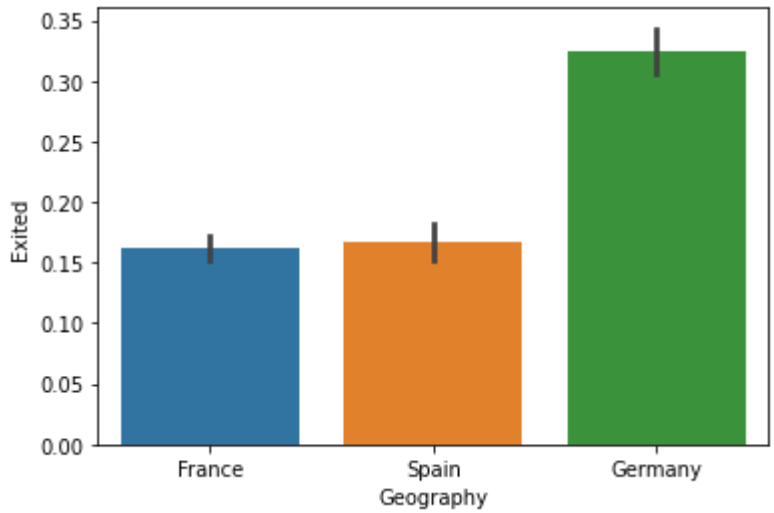

```
sns.distplot(df.EstimatedSalary)
```

```
<matplotlib.axes._subplots.AxesSubplot at 0x7f0fe7397ad0>
```




```
sns.barplot(df.Geography, df.Exited)
```

```
<matplotlib.axes._subplots.AxesSubplot at 0x7f0fe72e1450>
```

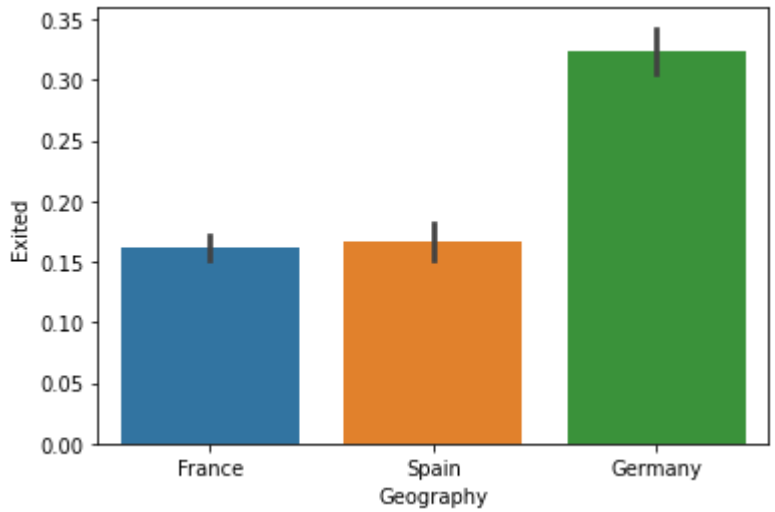



```
df.head(2)
```

	RowNumber	CustomerId	Surname	CreditScore	Geography	Gender	Age	Tenu
0	1	15634602	Hargrave	619	France	Female	42	

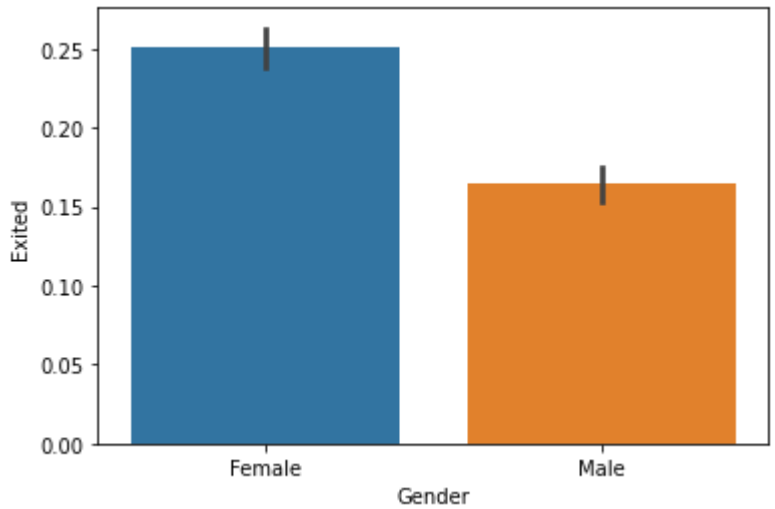
```
sns.barplot(x='Geography',y='Exited',data=df)
```

```
<matplotlib.axes._subplots.AxesSubplot at 0x7f0fe6bfbcd0>
```




```
sns.barplot(x='Gender',y='Exited',data=df)
```

```
<matplotlib.axes._subplots.AxesSubplot at 0x7f0fe66ad190>
```

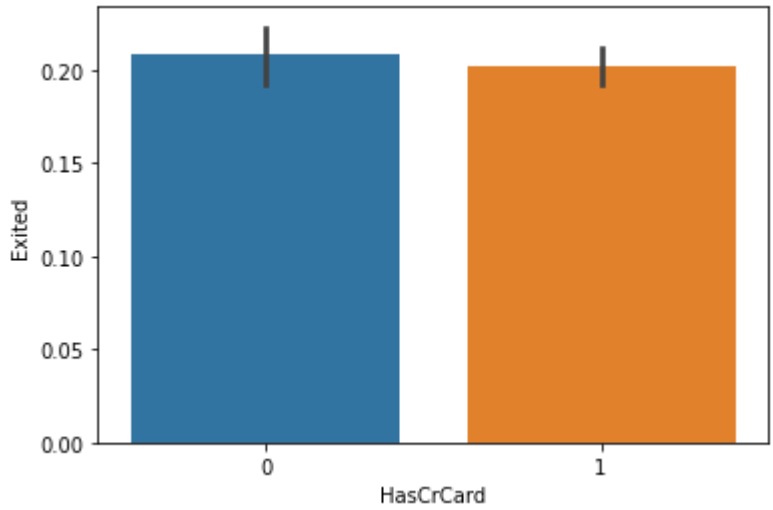



```
sns.barplot(x='NumOfProducts',y='Exited',data=df)
```

```
<matplotlib.axes._subplots.AxesSubplot at 0x7f0fe6694b10>
```

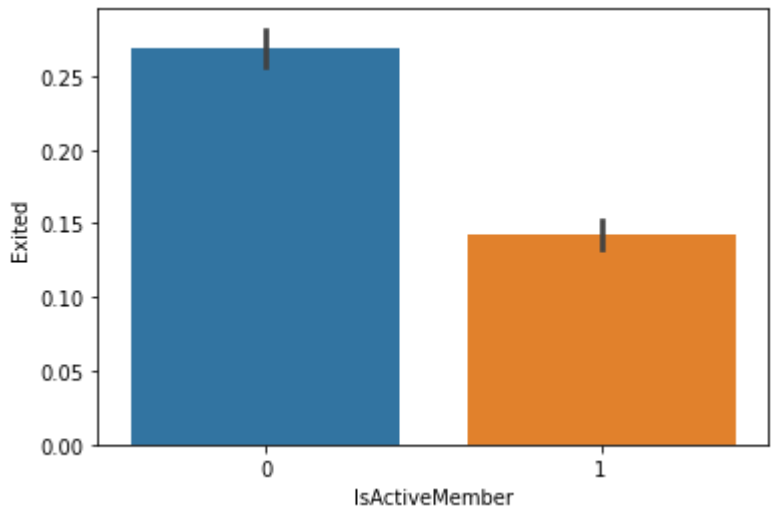

```
sns.barplot(x='HasCrCard',y='Exited',data=df)
```

```
<matplotlib.axes._subplots.AxesSubplot at 0x7f0fe65b0490>
```




```
sns.barplot(x='IsActiveMember',y='Exited',data=df)
```

```
<matplotlib.axes._subplots.AxesSubplot at 0x7f0fe71e4650>
```




```
sns.pairplot(df)
```

```
<seaborn.axisgrid.PairGrid at 0x7f0fe0864290>
```