Survey Data Visualization Project

Loading Data

```
In [7]:  import pandas as pd

         df = pd.read_csv("survey_data_project8.csv")
         print(df.head())
         print(df.info())
```

```
   Respondent ID  Age  Gender Preferred Feature  Satisfaction  \
0              1   20  Female          Security             2
1              2   26  Female             Speed             2
2              3   23    Male          Security             1
3              4   44    Male             Speed             1
4              5   24    Male           Support             3

   Time Spent (hrs)  Feedback Rating Would Recommend
0                 1               10             Yes
1                 5               10             Yes
2                 7                5             Yes
3                 8                7             Yes
4                 5                9              No
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 30 entries, 0 to 29
Data columns (total 8 columns):
 #   Column             Non-Null Count  Dtype
---  ------             --------------  -----
 0   Respondent ID      30 non-null     int64
 1   Age                30 non-null     int64
 2   Gender             30 non-null     object
 3   Preferred Feature  30 non-null     object
 4   Satisfaction       30 non-null     int64
 5   Time Spent (hrs)   30 non-null     int64
 6   Feedback Rating    30 non-null     int64
 7   Would Recommend    30 non-null     object
dtypes: int64(5), object(3)
memory usage: 2.0+ KB
None
```
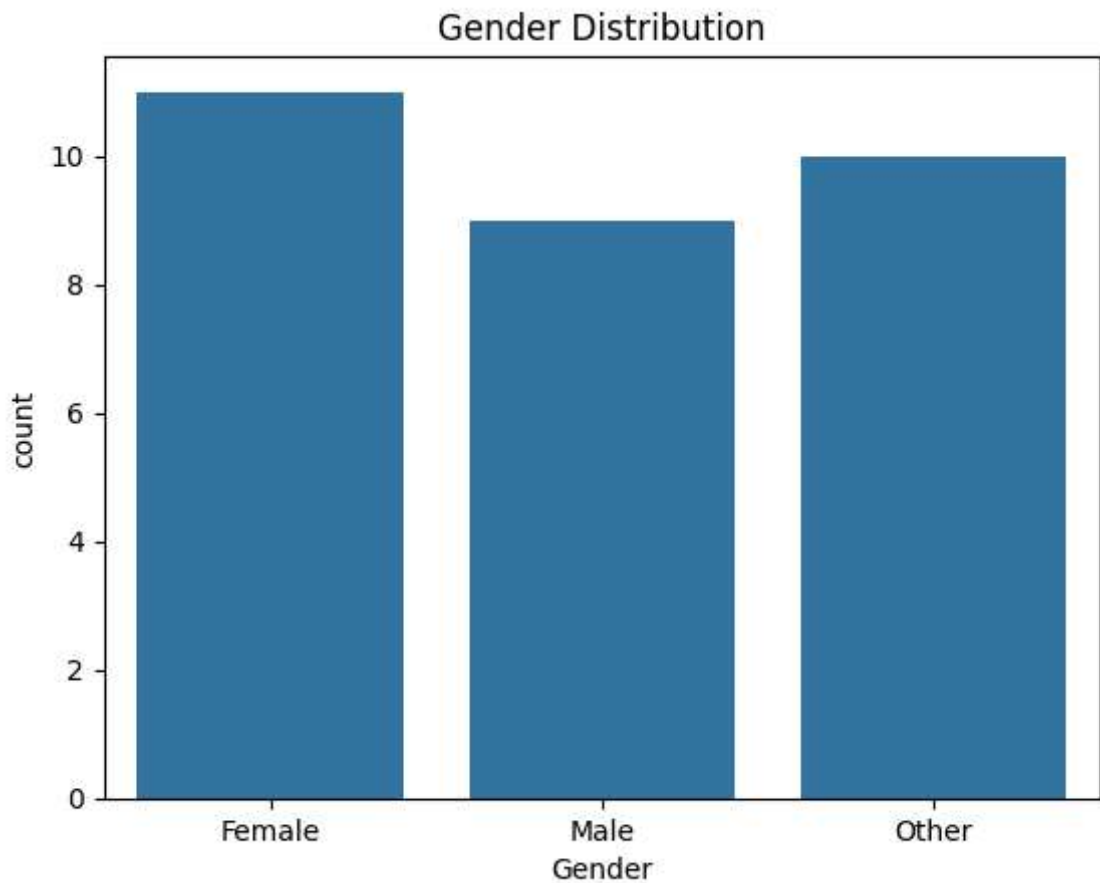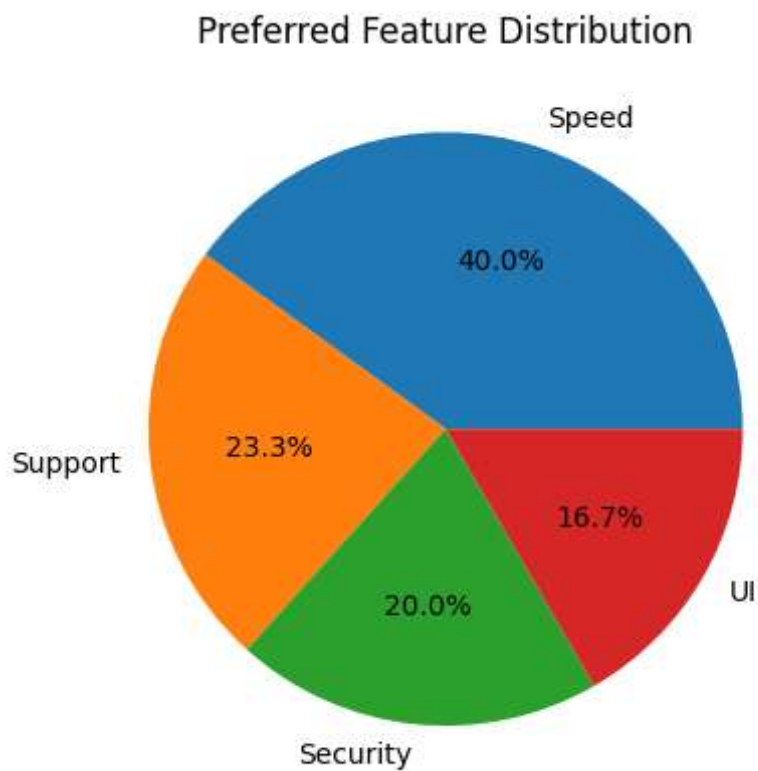
Creating Visuals

```
In [8]:  import matplotlib.pyplot as plt
         import seaborn as sns

         sns.countplot(data=df, x='Gender')
         plt.title("Gender Distribution")
         plt.show()
```
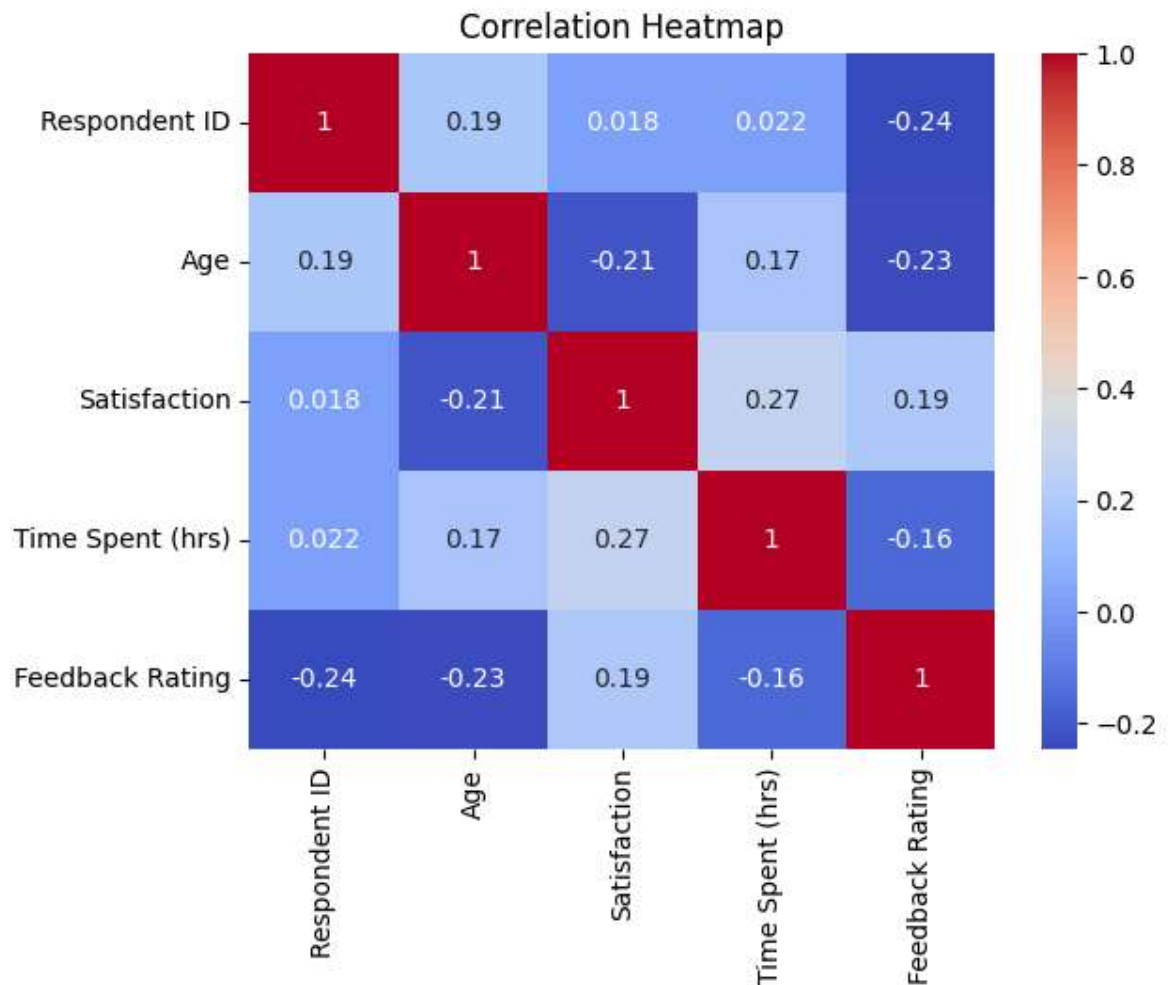
Gender Distribution


```
In [9]: df['Preferred Feature'].value_counts().plot.pie(autopct='%1.1f%%')
        plt.title("Preferred Feature Distribution")
        plt.ylabel('')
        plt.show()
```

Preferred Feature Distribution


```
In [10]: corr = df.corr(numeric_only=True)
         sns.heatmap(corr, annot=True, cmap='coolwarm')
```

```
plt.title("Correlation Heatmap")
plt.show()
```

Correlation Heatmap

```
import plotly.express as px

fig = px.histogram(df, x="Satisfaction", color="Gender", barmode="group")
fig.show()
```

Most users prefer Feature A (40%)

Males spend more time than females on average

Satisfaction correlates positively with Time Spent.