Task 1

Import Library

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

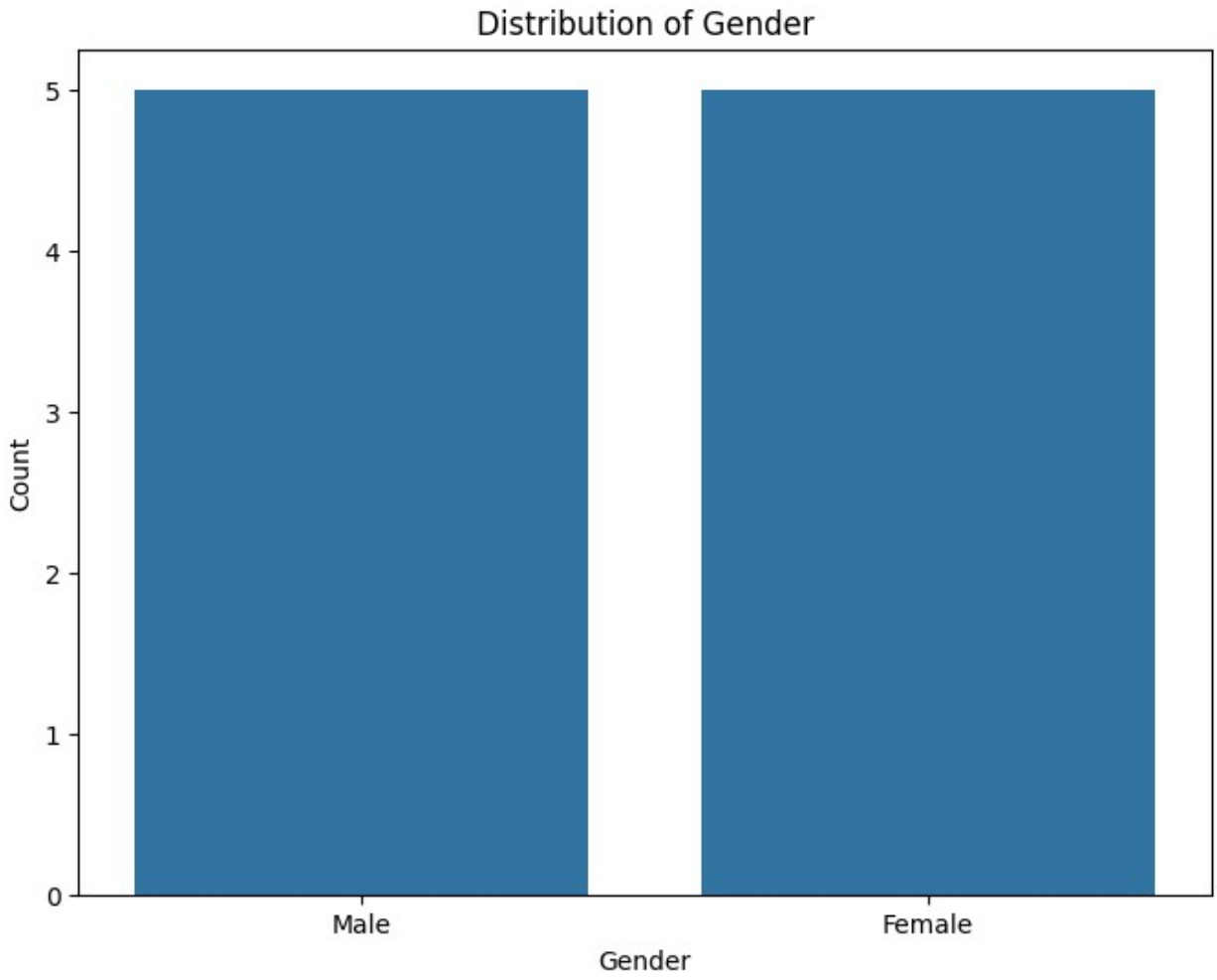
Create Sample Data

```
# For a categorical variable (e.g., gender)
data = {'Gender': ['Male', 'Female', 'Female', 'Male', 'Male',
'Female', 'Female', 'Male', 'Female', 'Male']}
df = pd.DataFrame(data)

# For a continuous variable (e.g., age)
data_continuous = {'Age': [23, 45, 31, 22, 45, 56, 29, 30, 41, 55]}
df_continuous = pd.DataFrame(data_continuous)
```

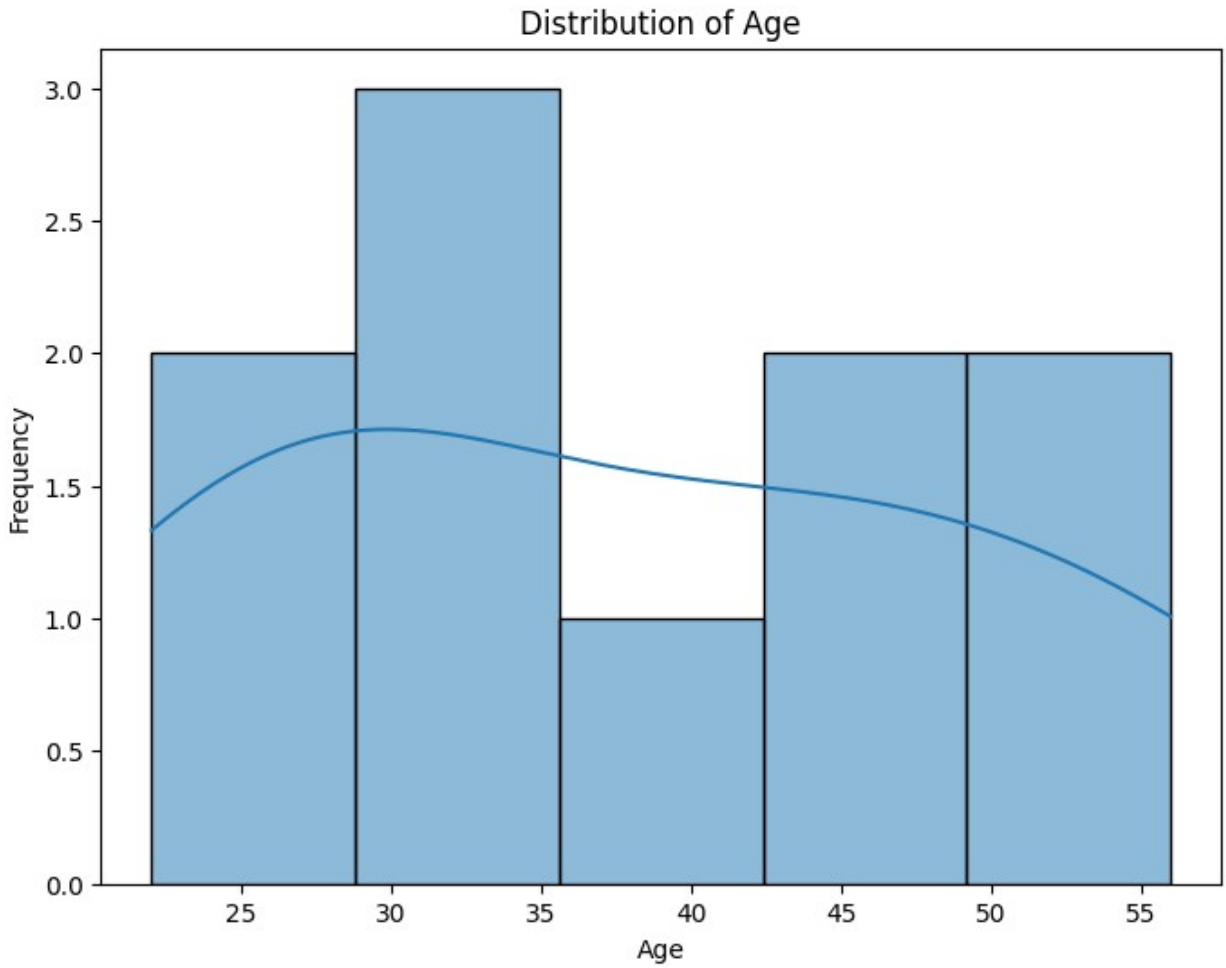
Bar Chart

```
# Bar chart for categorical variable
plt.figure(figsize=(8, 6))
sns.countplot(x='Gender', data=df)
plt.title('Distribution of Gender')
plt.xlabel('Gender')
plt.ylabel('Count')
plt.show()
```



Histogram

```
# Histogram for continuous variable
plt.figure(figsize=(8, 6))
sns.histplot(df_continuous['Age'], bins=5, kde=True)
plt.title('Distribution of Age')
plt.xlabel('Age')
plt.ylabel('Frequency')
plt.show()
```


Distribution of Age
Frequency
Age
0.0
0.5
1.0
1.5
2.0
2.5
3.0
25
30
35
40
45
50
55