Practical Assignment No.5

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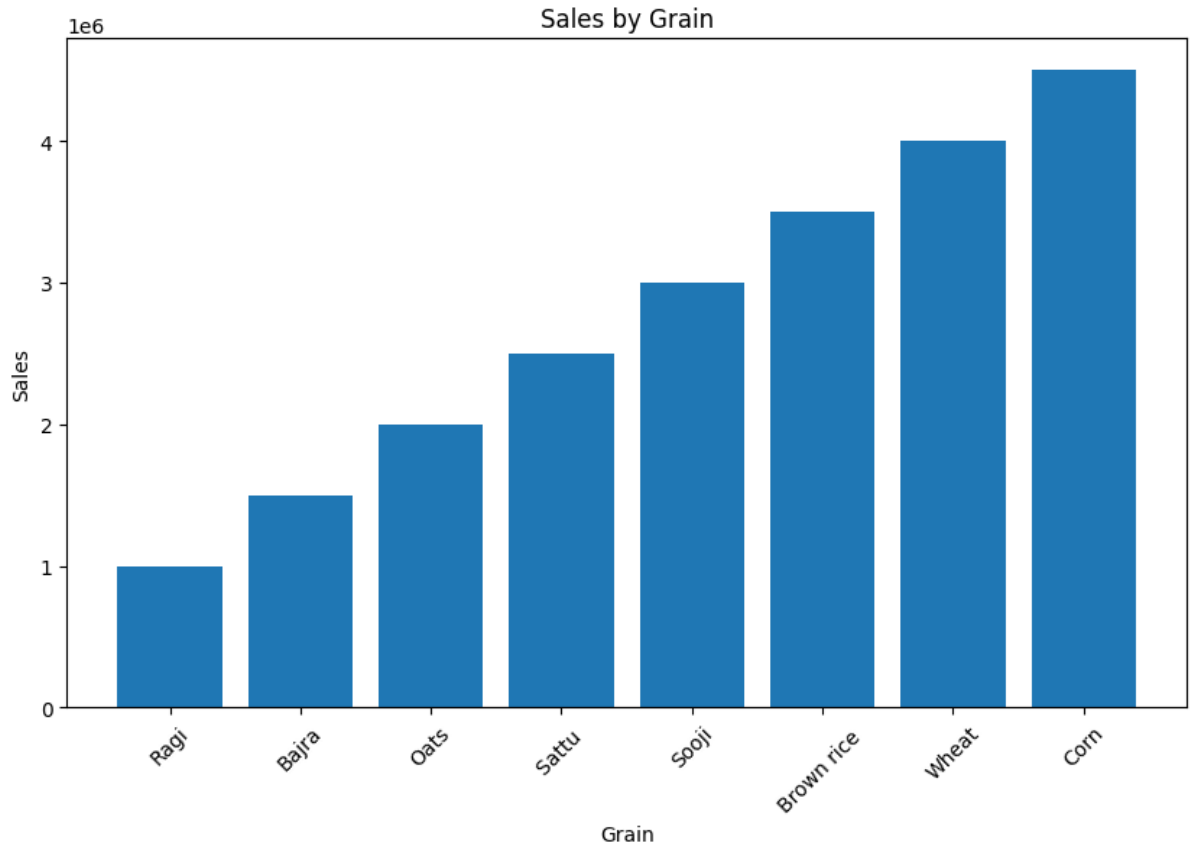
```
import pandas as pd
import matplotlib.pyplot as plt
data = pd.read_csv('/content/grainsales.csv')
top_10_grains =
data['GrainName'].value_counts().head(10).index.tolist()
subset_data = data[data['GrainName'].isin(top_10_grains)]
```

```
plt.figure(figsize=(10, 6))
plt.bar(subset_data['GrainName'], subset_data['Sales'])
plt.title('Sales by Grain')
plt.xlabel('Grain')
plt.ylabel('Sales')
plt.xticks(rotation=45)
plt.show()
```

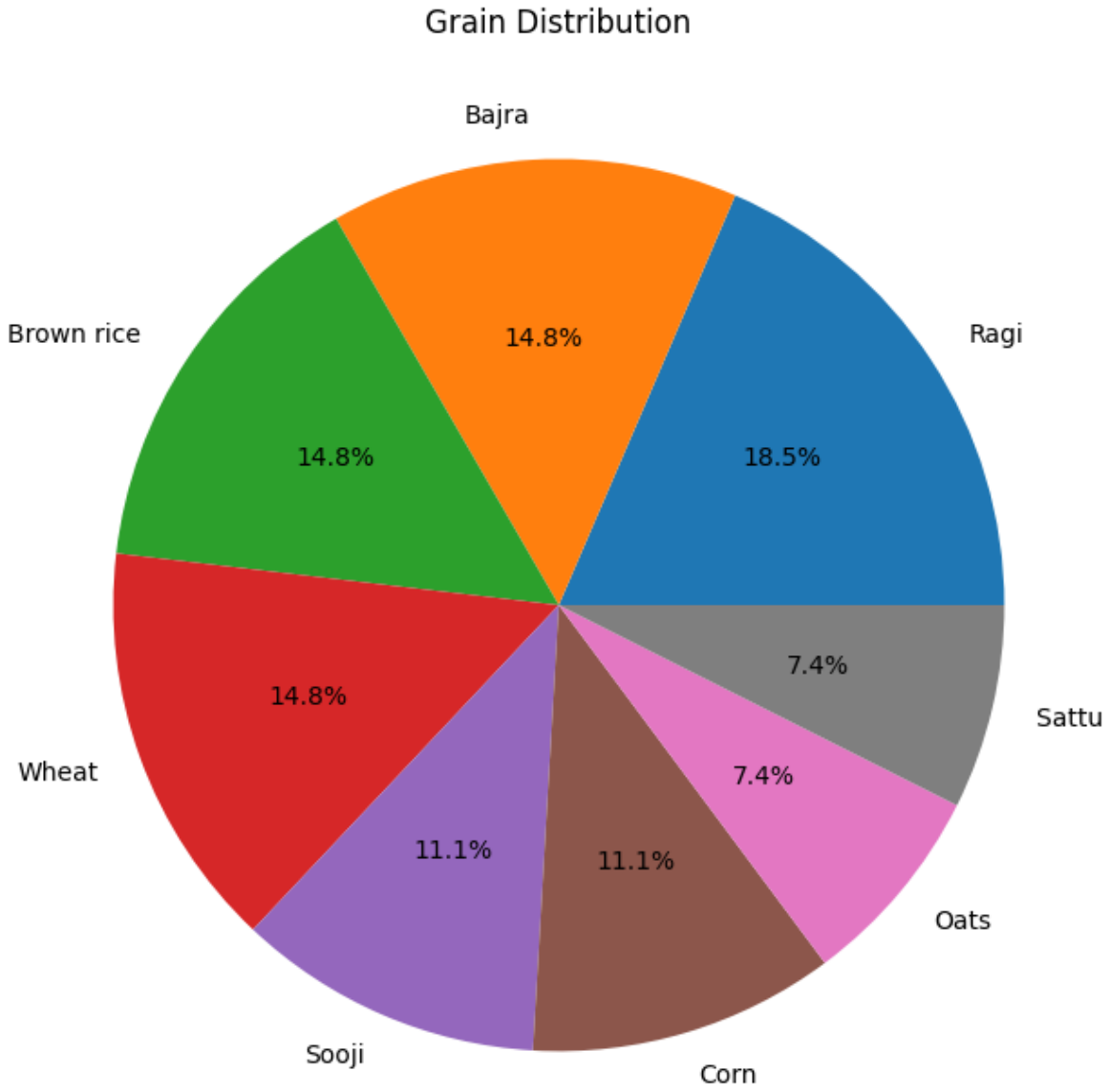
Output:




```
plt.figure(figsize=(8, 8))
subset_data['GrainName'].value_counts().plot.pie(autopct='%1.1f%%')
plt.title('Grain Distribution')
plt.ylabel('')
```

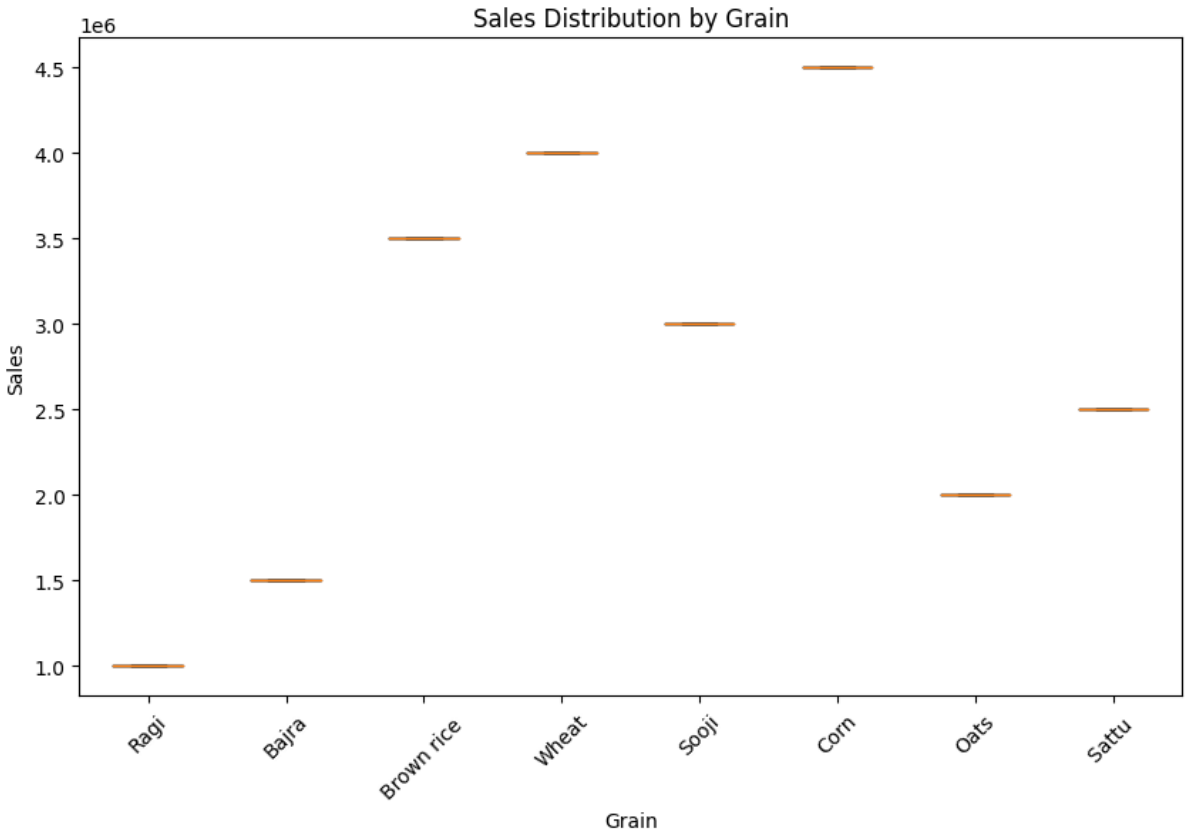
```
plt.show()
```

Output:

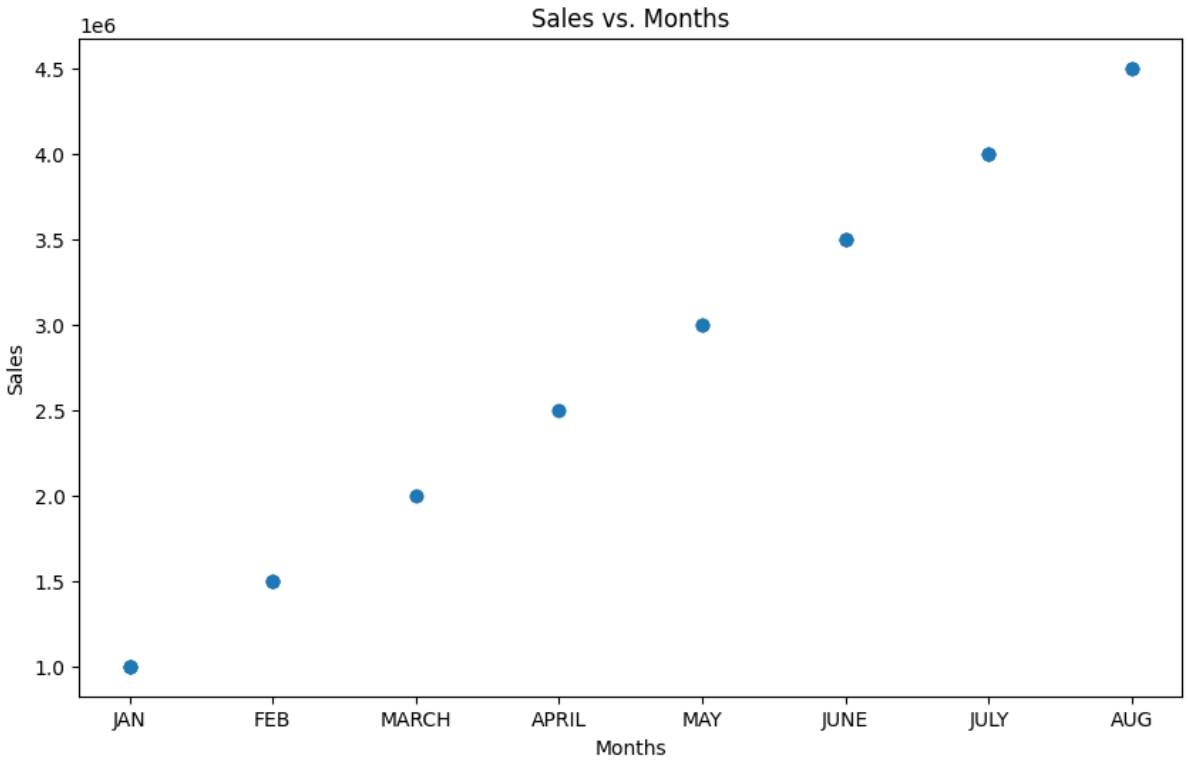



```
plt.figure(figsize=(10, 6))
plt.boxplot([subset_data[subset_data['GrainName'] == grain]['Sales']
for grain in top_10_grains], labels=top_10_grains)
plt.title('Sales Distribution by Grain')
plt.xlabel('Grain')
plt.ylabel('Sales')
plt.xticks(rotation=45)
plt.show()
```

Output:




```
plt.figure(figsize=(10, 6))
plt.scatter(data['Months'], data['Sales'])
plt.title('Sales vs. Months')
plt.xlabel('Months')
plt.ylabel('Sales')
plt.show()
```




```
plt.figure(figsize=(10, 6))
plt.hist(data['Sales'], bins=10, edgecolor='black')
plt.title('Distribution of Sales')
plt.xlabel('Sales')
plt.ylabel('Frequency')
plt.show()
```