Visualization of continuous data using Histogram

In [1]:
```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
```

In [13]:
```
data=pd.read_csv("Advertising.csv")
```

In [4]:
```
df = pd.DataFrame(data)
df.head()
```

Out[4]:

	Unnamed: 0	TV	radio	newspaper	sales
0	1	230.1	37.8	69.2	22.1
1	2	44.5	39.3	45.1	10.4
2	3	17.2	45.9	69.3	9.3
3	4	151.5	41.3	58.5	18.5
4	5	180.8	10.8	58.4	12.9

In [10]:
```
df.info()
```

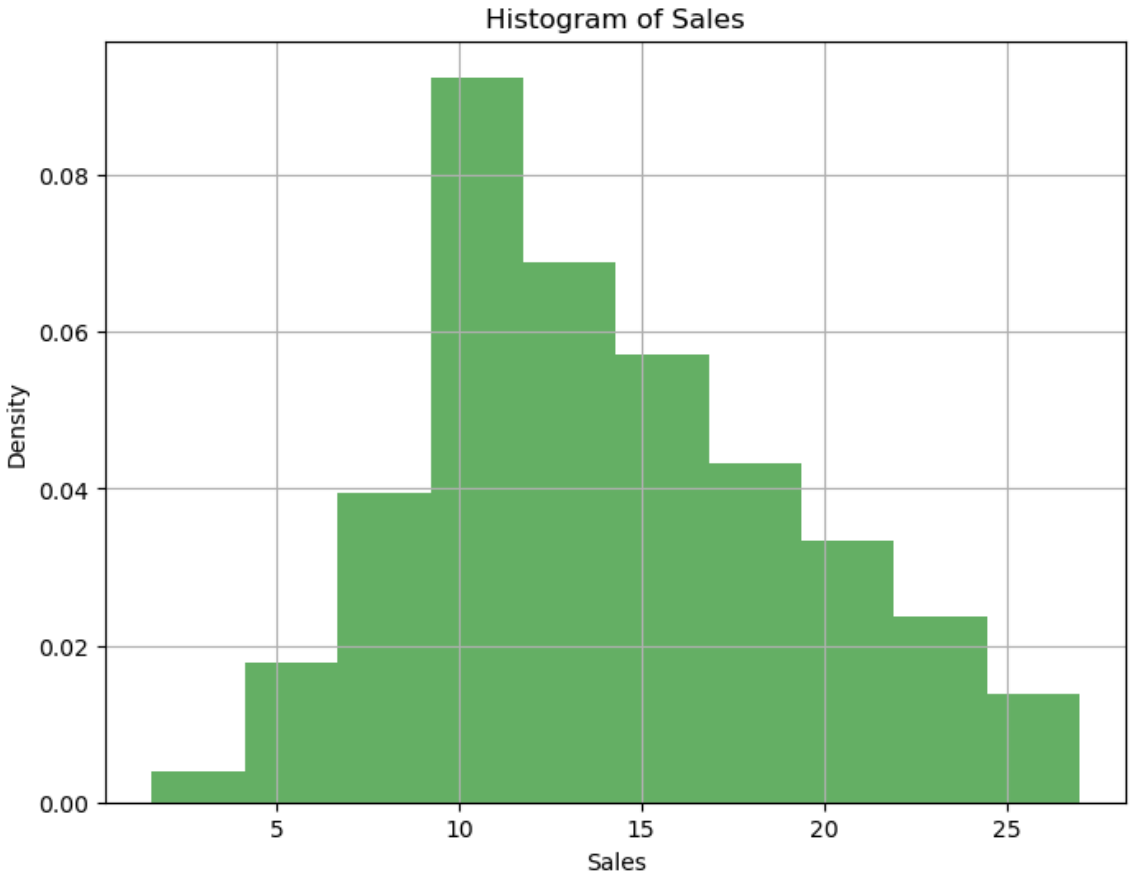
```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 200 entries, 0 to 199
Data columns (total 5 columns):
 #   Column      Non-Null Count  Dtype  
---  ------      --------------  -----  
 0   Unnamed: 0  200 non-null    int64  
 1   TV          200 non-null    float64
 2   radio       200 non-null    float64
 3   newspaper   200 non-null    float64
 4   sales       200 non-null    float64
dtypes: float64(4), int64(1)
memory usage: 7.9 KB
```

In [11]:
```
df.describe()
```

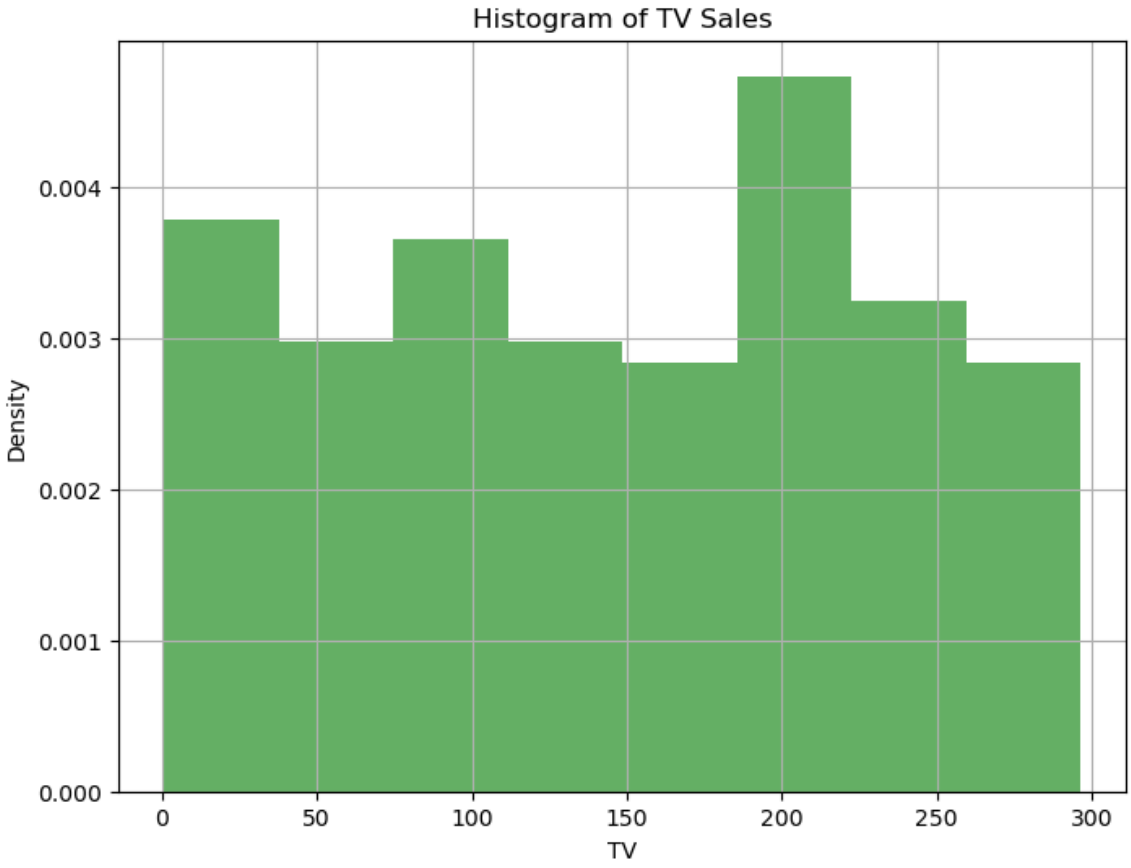
Out[11]:

	Unnamed: 0	TV	radio	newspaper	sales
count	200.000000	200.000000	200.000000	200.000000	200.000000
mean	100.500000	147.042500	23.264000	30.554000	14.022500
std	57.879185	85.854236	14.846809	21.778621	5.217457
min	1.000000	0.700000	0.000000	0.300000	1.600000
25%	50.750000	74.375000	9.975000	12.750000	10.375000
50%	100.500000	149.750000	22.900000	25.750000	12.900000
75%	150.250000	218.825000	36.525000	45.100000	17.400000
max	200.000000	296.400000	49.600000	114.000000	27.000000

In [15]:
```
plt.figure(figsize=(8, 6))
plt.hist(df['sales'], bins=10, density=True, alpha=0.6, color='g')
plt.title('Histogram of Sales')
plt.xlabel('Sales')
plt.ylabel('Density')
plt.grid(True)
plt.show()
```



In [14]:
```
plt.figure(figsize=(8, 6))
plt.hist(df['TV'], bins=8, density=True, alpha=0.6, color='g')
plt.title('Histogram of TV Sales')
plt.xlabel('TV')
plt.ylabel('Density')
plt.grid(True)
plt.show()
```



In [ ]: