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

```
df=pd.read_csv("/advertising.csv")
```

```
df.head()
```

	TV	Radio	Newspaper	Sales
0	230.1	37.8	69.2	22.1
1	44.5	39.3	45.1	10.4
2	17.2	45.9	69.3	12.0
3	151.5	41.3	58.5	16.5
4	180.8	10.8	58.4	17.9

```
df.tail()
```

	TV	Radio	Newspaper	Sales
195	38.2	3.7	13.8	7.6
196	94.2	4.9	8.1	14.0
197	177.0	9.3	6.4	14.8
198	283.6	42.0	66.2	25.5
199	232.1	8.6	8.7	18.4

```
print(df.describe)
```

```
<bound method NDFrame.describe of        TV  Radio  Newspaper  Sales
0    230.1   37.8       69.2   22.1
1     44.5   39.3       45.1   10.4
2     17.2   45.9       69.3   12.0
3    151.5   41.3       58.5   16.5
4    180.8   10.8       58.4   17.9
..     ...    ...        ...    ...
195   38.2    3.7       13.8    7.6
196   94.2    4.9        8.1   14.0
197  177.0    9.3        6.4   14.8
198  283.6   42.0       66.2   25.5
199  232.1    8.6        8.7   18.4

[200 rows x 4 columns]>
```

```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 200 entries, 0 to 199
Data columns (total 4 columns):
 #   Column     Non-Null Count  Dtype  
---  ------     --------------  -----  
 0   TV         200 non-null    float64
 1   Radio      200 non-null    float64
 2   Newspaper  200 non-null    float64
 3   Sales      200 non-null    float64
dtypes: float64(4)
memory usage: 6.4 KB
```

```
print(df.shape)
```

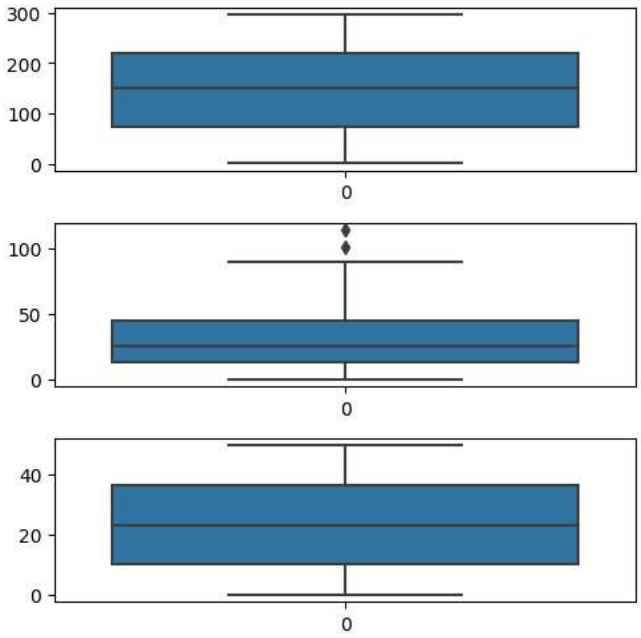
```
(200, 4)
```

```
df.isna().sum()
```

```
TV           0
Radio        0
Newspaper    0
```

```
Sales        0
dtype: int64
```

```
fig,axs=plt.subplots(3,figsize=(5,5))
plt1=sns.boxplot(df['TV'],ax=axs[0])
plt2=sns.boxplot(df['Newspaper'],ax=axs[1])
plt3=sns.boxplot(df['Radio'],ax=axs[2])
plt.tight_layout()
```




```
X=df['TV']
Y=df['Sales']
plt.scatter(X,Y,color='blue',label='scatter plot')
plt.title('Relationship between TV and Sales')
plt.Xlabel('TV')
plt.Ylabel('Sales')
plt.legend()
plt.Show()
```

```
---------------------------------------------------------------------------
AttributeError                            Traceback (most recent call last)
<ipython-input-23-40d1738ad7b5> in <cell line: 5>()
      3 plt.scatter(X,Y,color='blue',label='scatter plot')
      4 plt.title('Relationship between TV and Sales')
----> 5 plt.Xlabel('TV')
```

```
X=np.array(X)
Y=np.array(Y)
X=X.reshape(-1,1)
Y=Y.reshape(-1,1)
from sklearn.model_selection import train_test_split
X_train,X_test,Y_train,Y_test=train_test_split(X,Y,test_size=0.30,random_state=42)
from sklearn.linear_model import linearRegression
lm=LinearRegression()
lm.fit(X_train,Y_train)
```

```
---------------------------------------------------------------------------
ImportError                               Traceback (most recent call last)
<ipython-input-30-05f8900cd83e> in <cell line: 7>()
      5 from sklearn.model_selection import train_test_split
      6 X_train,X_test,Y_train,Y_test=train_test_split(X,Y,test_size=0.30,random_state=42)
----> 7 from sklearn.linear_model import linearRegression
      8 lm=LinearRegression()
      9 lm.fit(X_train,Y_train)

ImportError: cannot import name 'linearRegression' from 'sklearn.linear_model' (/usr/local/lib/python3.10/dist-
packages/sklearn/linear_model/__init__.py)

---------------------------------------------------------------------------
NOTE: If your import is failing due to a missing package, you can
manually install dependencies using either !pip or !apt.

To view examples of installing some common dependencies, click the
"Open Examples" button below.
---------------------------------------------------------------------------
```

OPEN EXAMPLES SEARCH STACK OVERFLOW