# Visualize the data using Python library matplotlib by plotting following graphs forest fire datasets

a. Scatter Plot b. Bar Plot c. Histogram d. Pie Chart e. Line Chart

In [32]:

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

In [33]:

```
df=pd.read_csv('forestfires.csv')
```

In [34]:

```
df
```

Out[34]:

| | X | Y | month | day | FFMC | DMC | DC | ISI | temp | RH | wind | rain | area |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **0** | 7 | 5 | mar | fri | 86.2 | 26.2 | 94.3 | 5.1 | 8.2 | 51 | 6.7 | 0.0 | 0.00 |
| **1** | 7 | 4 | oct | tue | 90.6 | 35.4 | 669.1 | 6.7 | 18.0 | 33 | 0.9 | 0.0 | 0.00 |
| **2** | 7 | 4 | oct | sat | 90.6 | 43.7 | 686.9 | 6.7 | 14.6 | 33 | 1.3 | 0.0 | 0.00 |
| **3** | 8 | 6 | mar | fri | 91.7 | 33.3 | 77.5 | 9.0 | 8.3 | 97 | 4.0 | 0.2 | 0.00 |
| **4** | 8 | 6 | mar | sun | 89.3 | 51.3 | 102.2 | 9.6 | 11.4 | 99 | 1.8 | 0.0 | 0.00 |
| **...** | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| **512** | 4 | 3 | aug | sun | 81.6 | 56.7 | 665.6 | 1.9 | 27.8 | 32 | 2.7 | 0.0 | 6.44 |
| **513** | 2 | 4 | aug | sun | 81.6 | 56.7 | 665.6 | 1.9 | 21.9 | 71 | 5.8 | 0.0 | 54.29 |
| **514** | 7 | 4 | aug | sun | 81.6 | 56.7 | 665.6 | 1.9 | 21.2 | 70 | 6.7 | 0.0 | 11.16 |
| **515** | 1 | 4 | aug | sat | 94.4 | 146.0 | 614.7 | 11.3 | 25.6 | 42 | 4.0 | 0.0 | 0.00 |
| **516** | 6 | 3 | nov | tue | 79.5 | 3.0 | 106.7 | 1.1 | 11.8 | 31 | 4.5 | 0.0 | 0.00 |

517 rows × 13 columns

# a. Scatter Plot

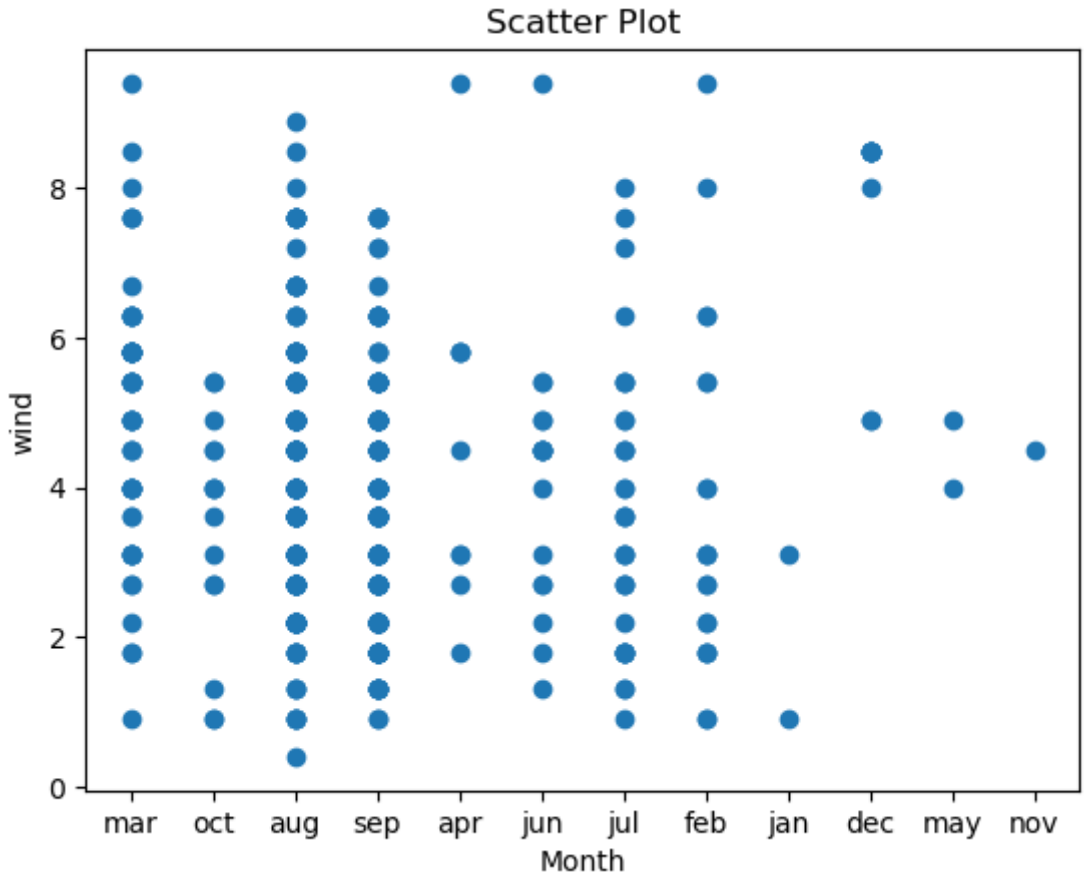
In [35]:

```
plt.scatter(df['month'], df['wind'])

# Adding Title to the Plot
plt.title("Scatter Plot")

# Setting the X and Y labels
plt.xlabel('Month')
plt.ylabel('wind')

plt.show()
```



# b. Bar Plot

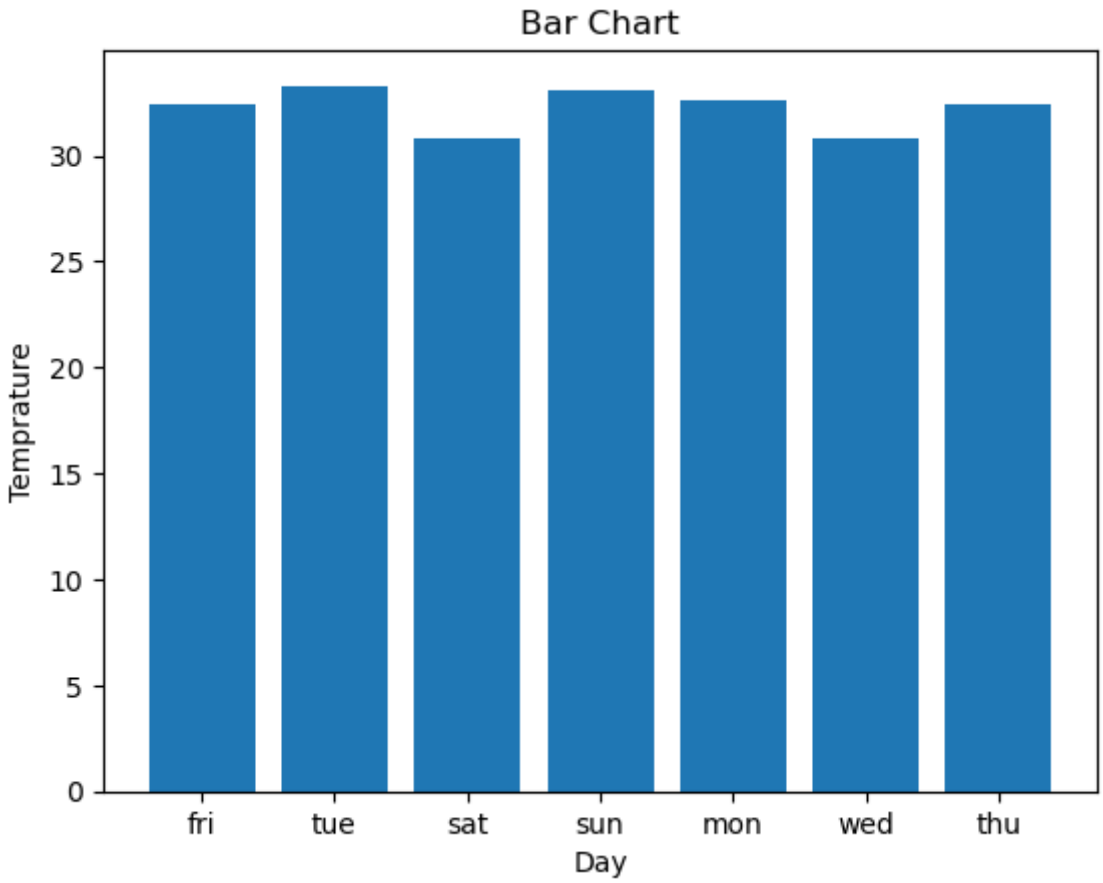
In [36]:

```
#Bar chart with day against temprature
plt.bar(df['day'], df['temp'])

plt.title("Bar Chart")

# Setting the X and Y labels
plt.xlabel('Day')
plt.ylabel('Temprature')

# Adding the legends
plt.show()
```

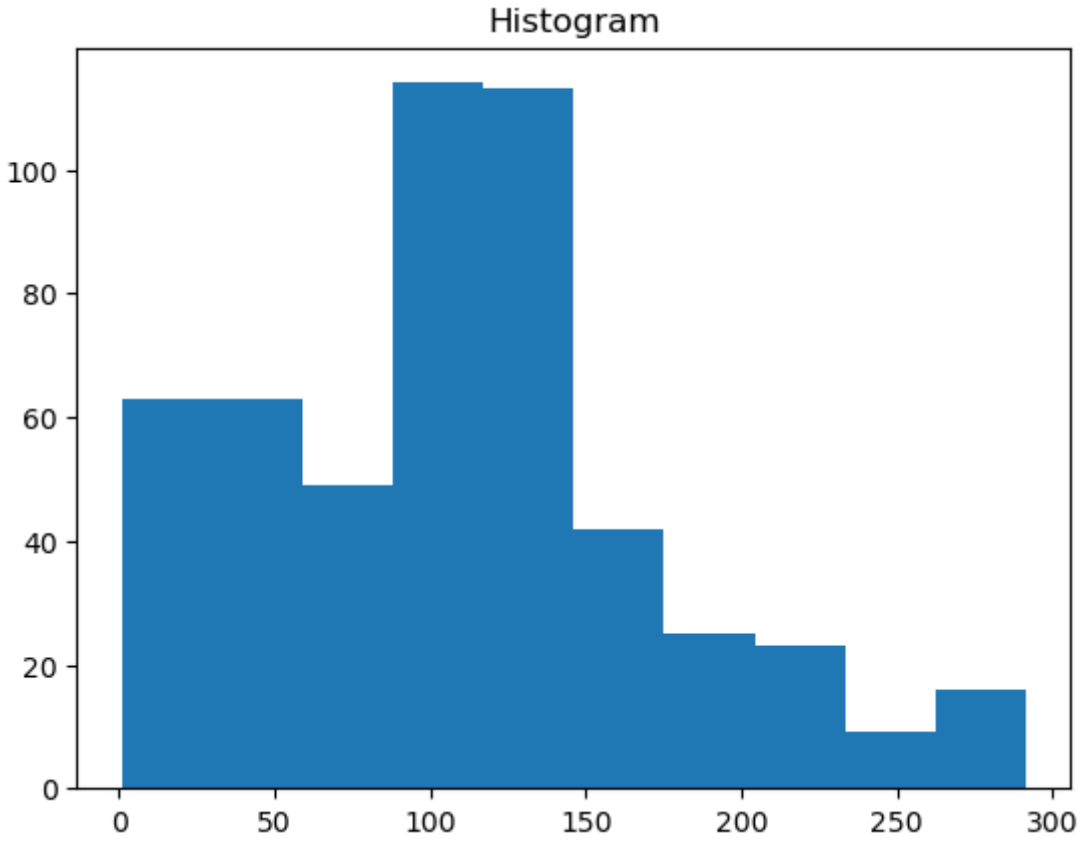


# c. Histogram

In [37]:

```
# histogram of total_bills
plt.hist(df['DMC'])
plt.title("Histogram")

plt.show()
```



# d. Pie Chart

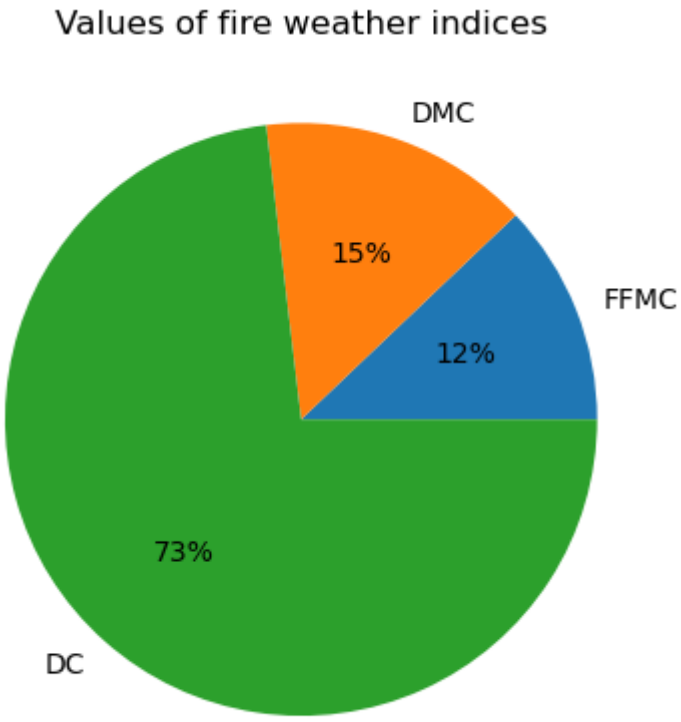
In [38]:

```
keys='FFMC','DMC','DC'
sizes=[df['FFMC'].sum(),df['DMC'].sum(),df['DC'].sum()]

# Plotting data on chart
plt.pie(sizes, labels=keys, autopct='%.0f%%')

# Add title to the chart
plt.title('Values of fire weather indices')

# Displaying chart
plt.show()
```



# e. Line Chart

In [40]:

```
# draw lineplot
sns.lineplot(x="month", y="temp", data=df)

# setting the title
plt.title('Line Chart')

plt.show()
```