Experiment 3 : Import data set and plot various graphs using matplotlib

In [11]:

```
# importing dependencies
import pandas as pd
import matplotlib.pyplot as plt
import numpy as np

df = pd.read_csv('/content/Iris.csv')
df.columns
```

Out[11]:

```
Index(['Id', 'SepalLengthCm', 'SepalWidthCm', 'PetalLengthCm', 'PetalWidthCm',
       'Species'],
      dtype='object')
```

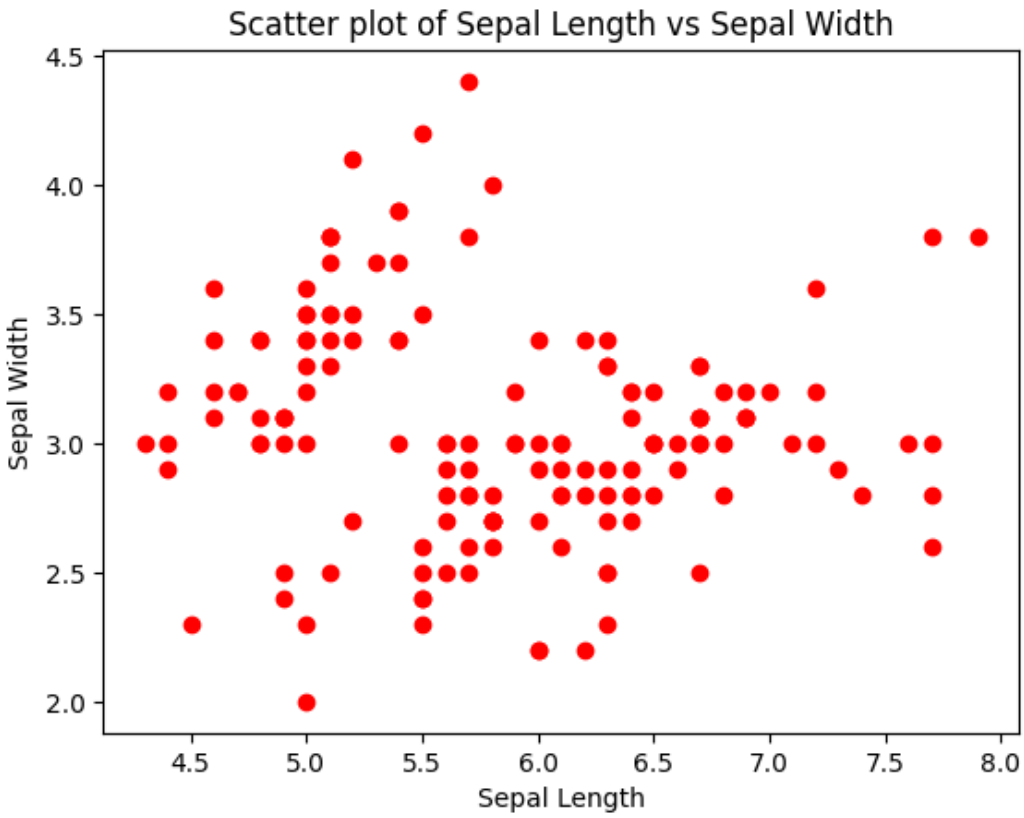
Scatter Plot

In [14]:

```
plt.scatter(df['SepalLengthCm'], df['SepalWidthCm'], c='red')
plt.title('Scatter plot of Sepal Length vs Sepal Width')
plt.xlabel('Sepal Length')
plt.ylabel('Sepal Width')
plt.plot()
```

Out[14]:

```
[]
```



Histogram

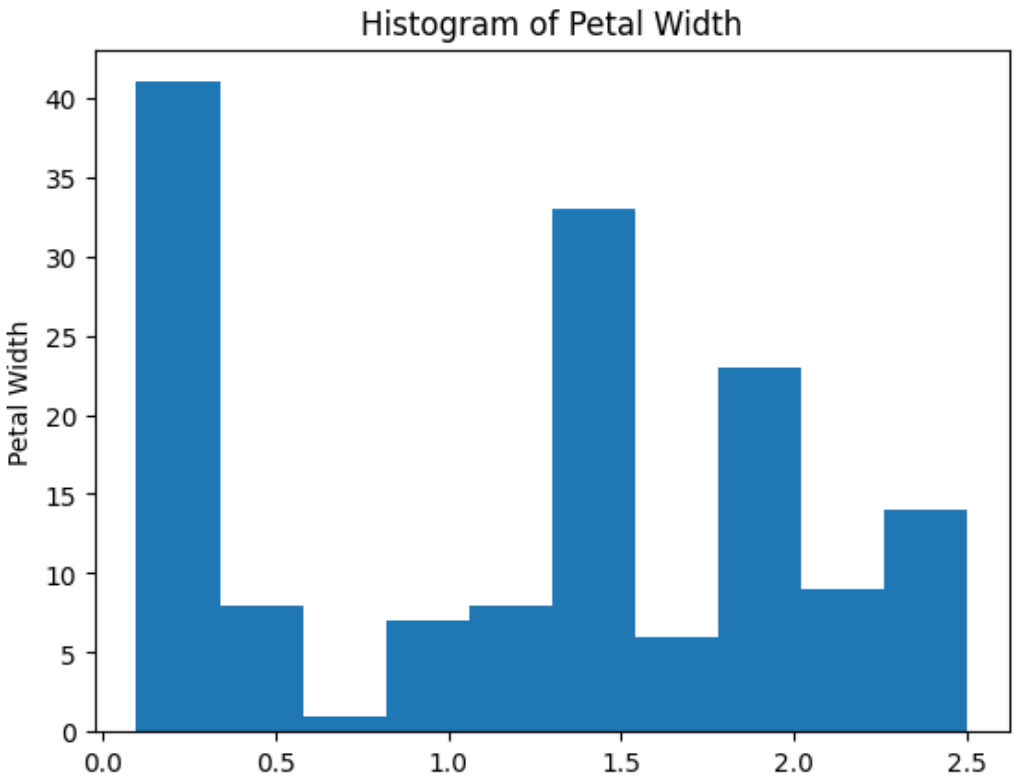
In [18]:

```
plt.hist(df['PetalWidthCm'])
plt.title('Histogram of Petal Width')
plt.ylabel('Petal Width')
```

```
plt.plot()
```

Out[18]:

```
[]
```



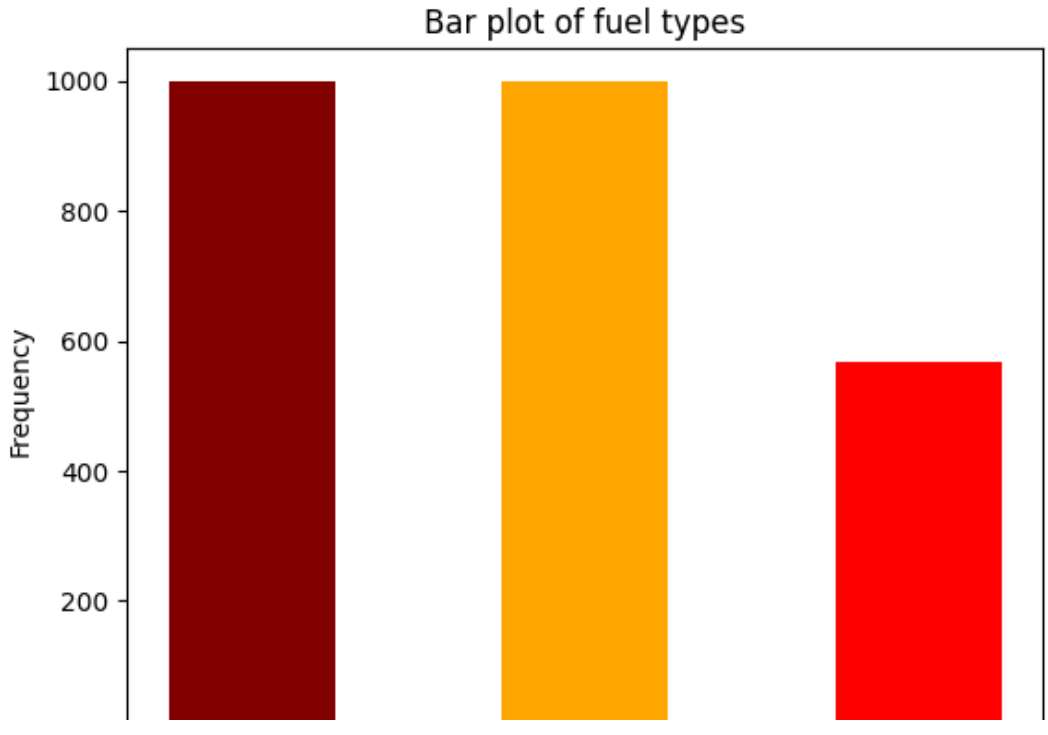
Bar Chart

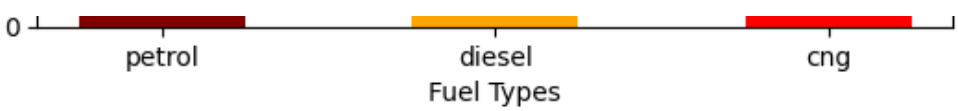
In [30]:

```
arr = [999,1000,567]
fuel_type = ['petrol', 'diesel', 'cng']
plt.bar(fuel_type, arr, width = 0.5, color=['maroon', 'orange', 'red'])
plt.title('Bar plot of fuel types')
plt.xlabel('Fuel Types')
plt.ylabel('Frequency')
plt.plot()
```

Out[30]:

```
[]
```





Line Chart

In [38]:

```
year= [1920, 1930, 1940, 1950, 1960, 1970, 1980, 1990, 2000, 2010, 2020, 2030, 2040]
literacy_rate = [3.4, 3.6, 3.8, 4.6, 5.6, 5.7, 5.8, 5.9, 6.1, 6.15, 6.17, 6.2, 6.2]
plt.plot(year, literacy_rate, marker = 'o')
plt.title('Unemployment Rate vs Year')
plt.grid(True)
plt.show()
```