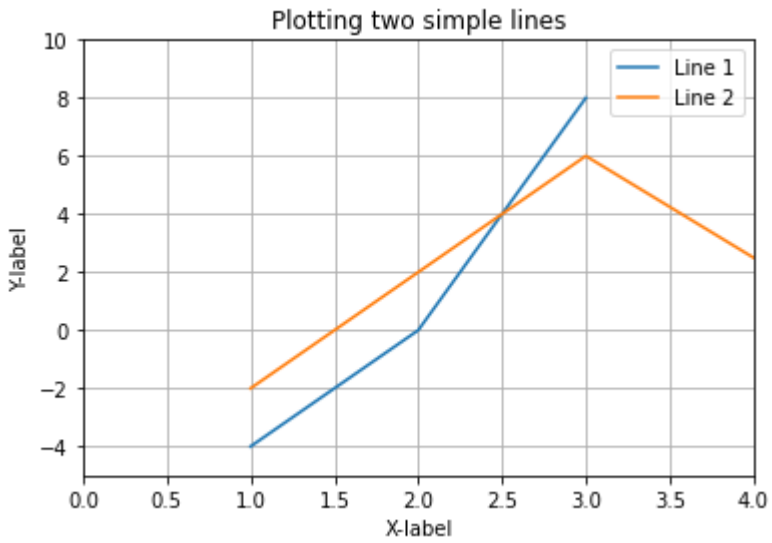
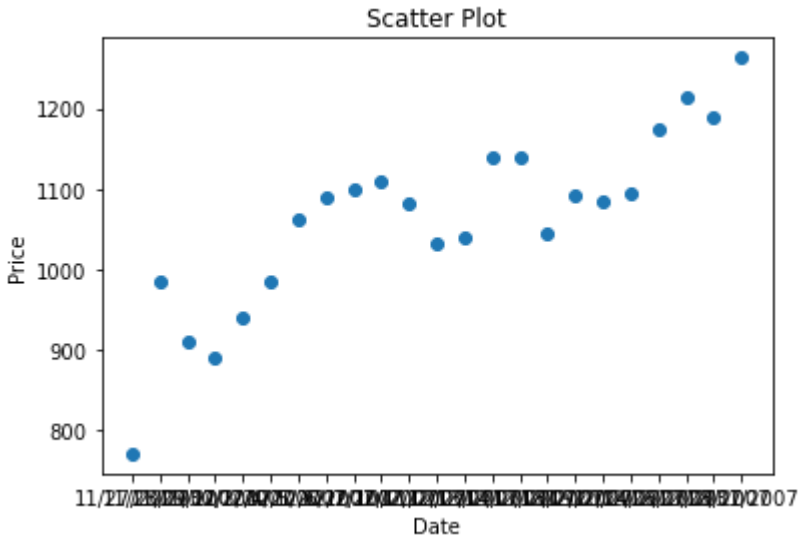
In [ ]:
```
#S P CHITRASHREE - ENG19CS0269
```

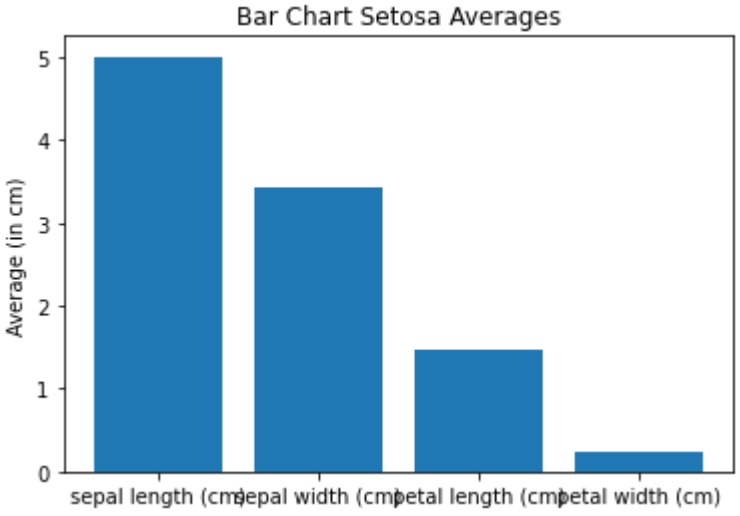
In [1]:
```
import matplotlib.pyplot as plt
x = [1, 2, 3]
x2 = [1, 3, 5]
y = [-4, 0, 8]
y2 = [-2, 6, -1]
plt.plot(x, y, label='Line 1')
plt.plot(x2, y2, label='Line 2')
plt.title("Plotting two simple lines")
plt.grid(True)
plt.xlabel("X-label")
plt.ylabel("Y-label")
plt.xlim([0, 4])
plt.ylim([-5, 10])
plt.legend()
plt.show()
```



In [4]:
```
import matplotlib.pyplot as plt
import pandas as pd
data = pd.read_csv("ADANIPORTS.csv")
X = data["Date"]
Y = data["Open"]
plt.scatter(X, Y)
plt.title("Scatter Plot")
plt.xlabel("Date")
plt.ylabel("Price")
plt.show()
```



In [5]:
```
from sklearn import datasets
import matplotlib.pyplot as plt
iris = datasets.load_iris()
X_iris = iris.data
Y_iris = iris.target
average = X_iris[Y_iris == 0].mean(axis=0)
plt.bar(iris.feature_names, average)
plt.title("Bar Chart Setosa Averages")
plt.ylabel("Average (in cm)")
plt.show()
```



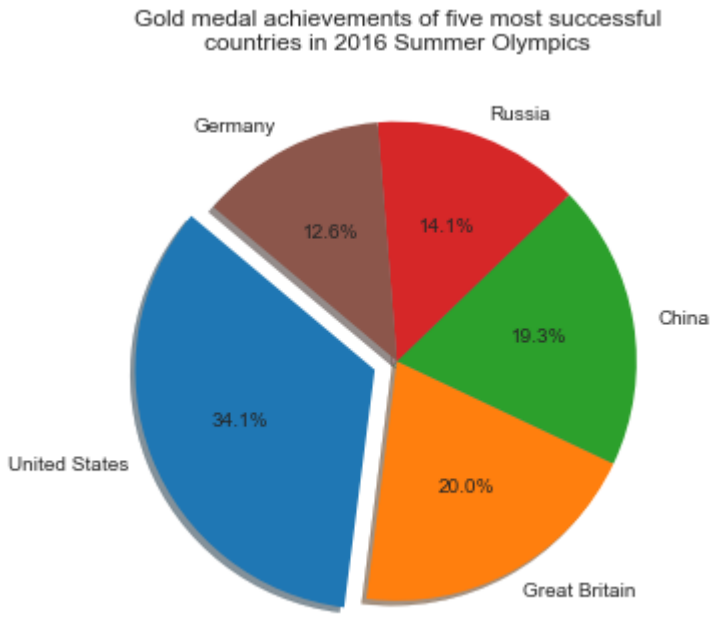
In [7]:
```
import numpy as np
import seaborn as sns
import matplotlib.pylab as plt
plt.style.use("seaborn")

# 2. Generate a 10x10 random integer matrix
data = np.random.rand(5,5)
print("Our dataset is : ",data)

# 3. Plot the heatmap
plt.figure(figsize=(10,10))
heat_map = sns.heatmap( data, linewidth = 1 , annot = True)
plt.title( "HeatMap using Seaborn Method" )
plt.show()
```

```
Our dataset is :  [[0.95123925 0.40960707 0.89901522 0.91064842 0.43785885]
 [0.31395074 0.45686752 0.73353558 0.74708804 0.8319477 ]
 [0.84559979 0.66805908 0.18278693 0.18467888 0.1292604 ]
 [0.8966503  0.91809679 0.71007938 0.35144505 0.32126346]
 [0.81054536 0.21685754 0.96876824 0.37251001 0.51782607]]
```

In [8]:
```
import matplotlib.pyplot as plt
import pandas as pd
df =  pd.read_csv('iris.csv')
country_data = df["country"]
medal_data = df["gold_medal"]
colors = ["#1f77b4", "#ff7f0e", "#2ca02c", "#d62728", "#8c564b"]
explode = (0.1, 0, 0, 0, 0)
plt.pie(medal_data, labels=country_data, explode=explode, colors=colors,
autopct='%1.1f%%', shadow=True, startangle=140)
plt.title("Gold medal achievements of five most successful\n"+"countries in 2016
plt.show()
```



In [ ]:
```

```