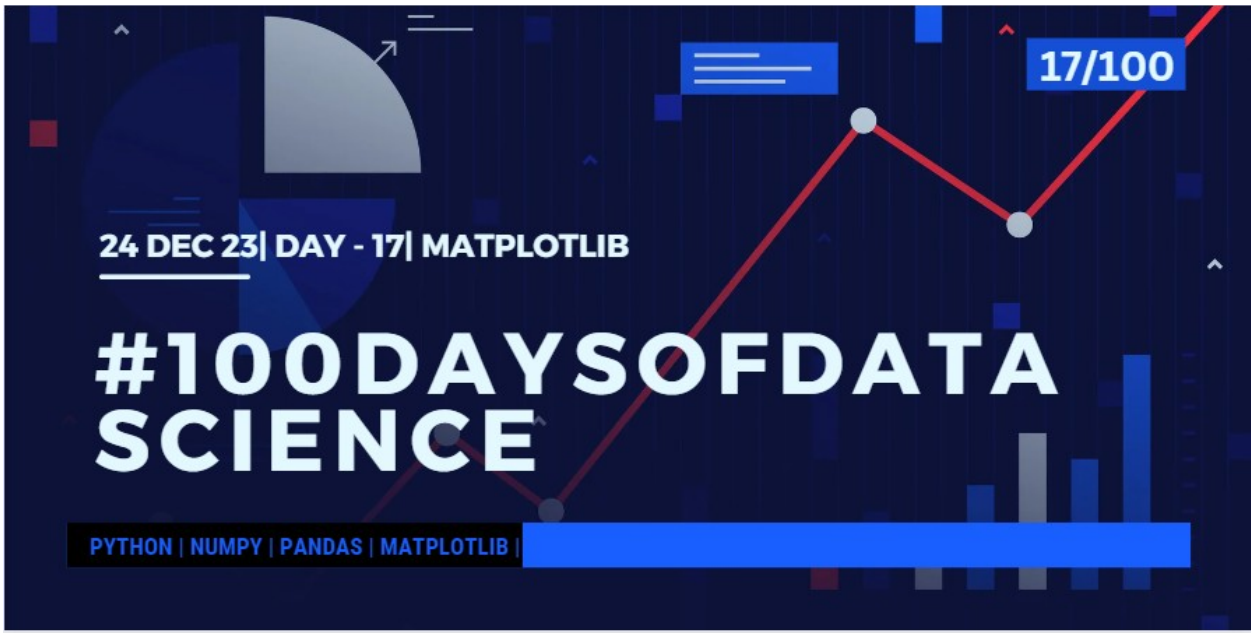
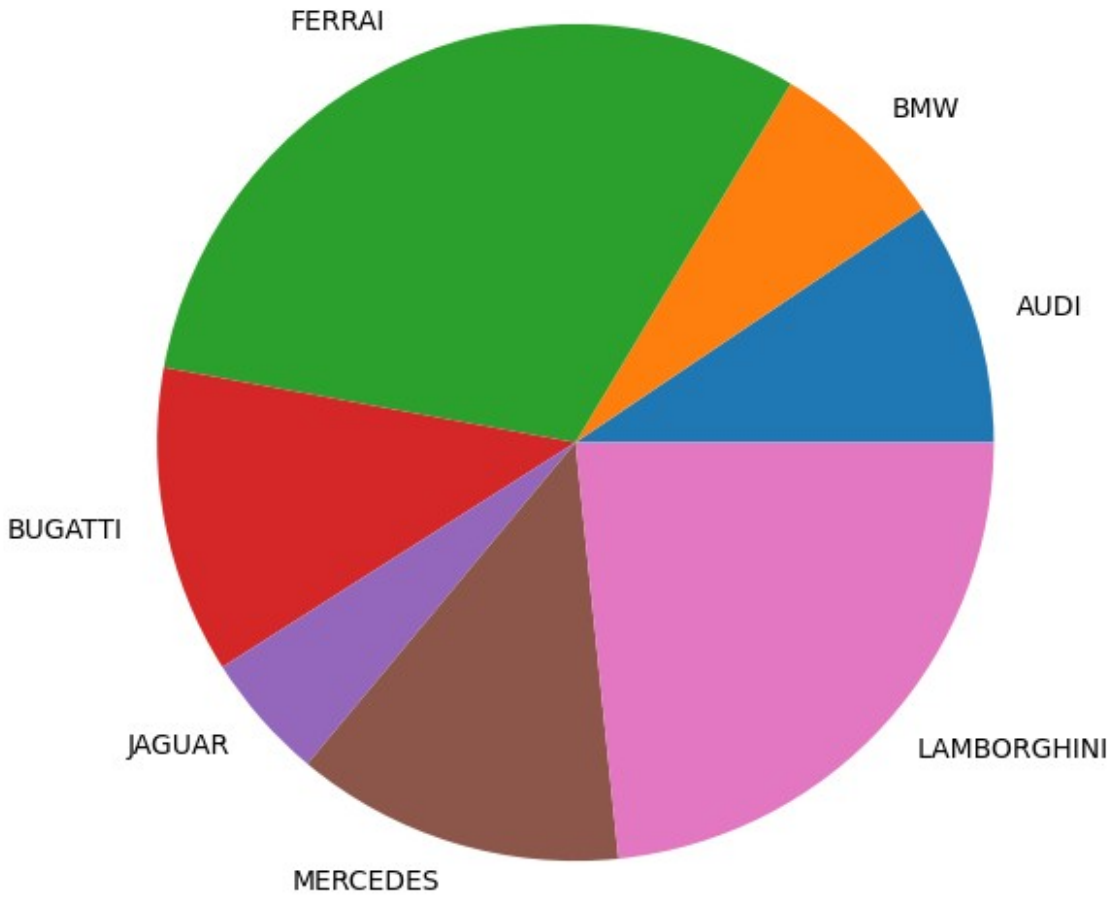



```
import matplotlib.pyplot as plt
import numpy as np
```

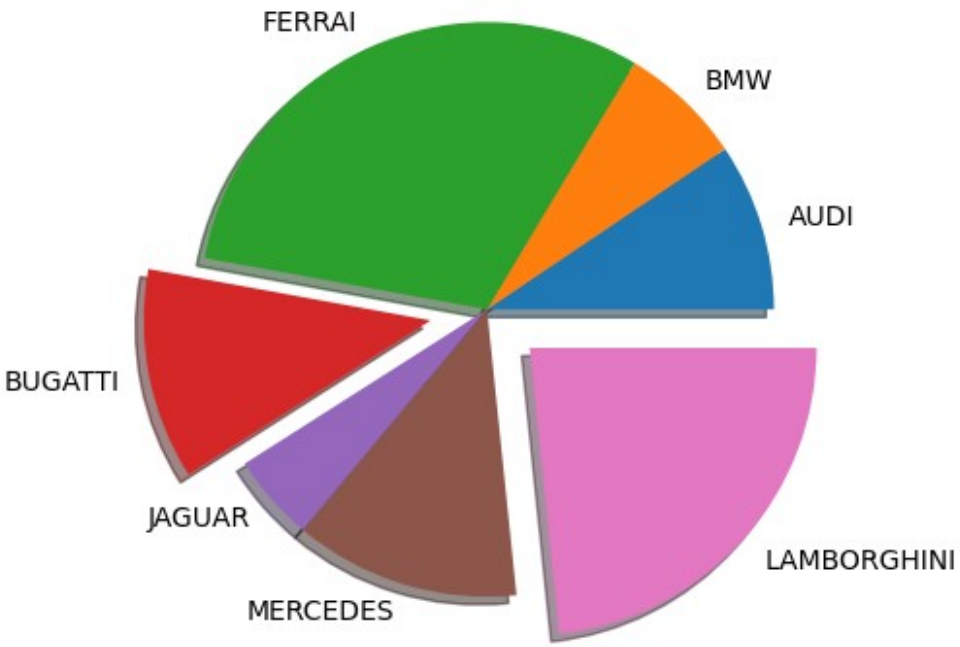
Pie Chart

- A Pie Chart is a circular statistical plot that can display only one series of data.
- The area of the chart is the total percentage of the given data.
- The area of slices of the pie represents the percentage of the parts of the data.
- The slices of pie are called wedges.
- The area of the wedge is determined by the length of the arc of the wedge.
- The area of a wedge represents the relative percentage of that part with respect to whole data.
- Pie charts are commonly used in business presentations like sales, operations, survey results, resources, etc as they provide a quick summary.

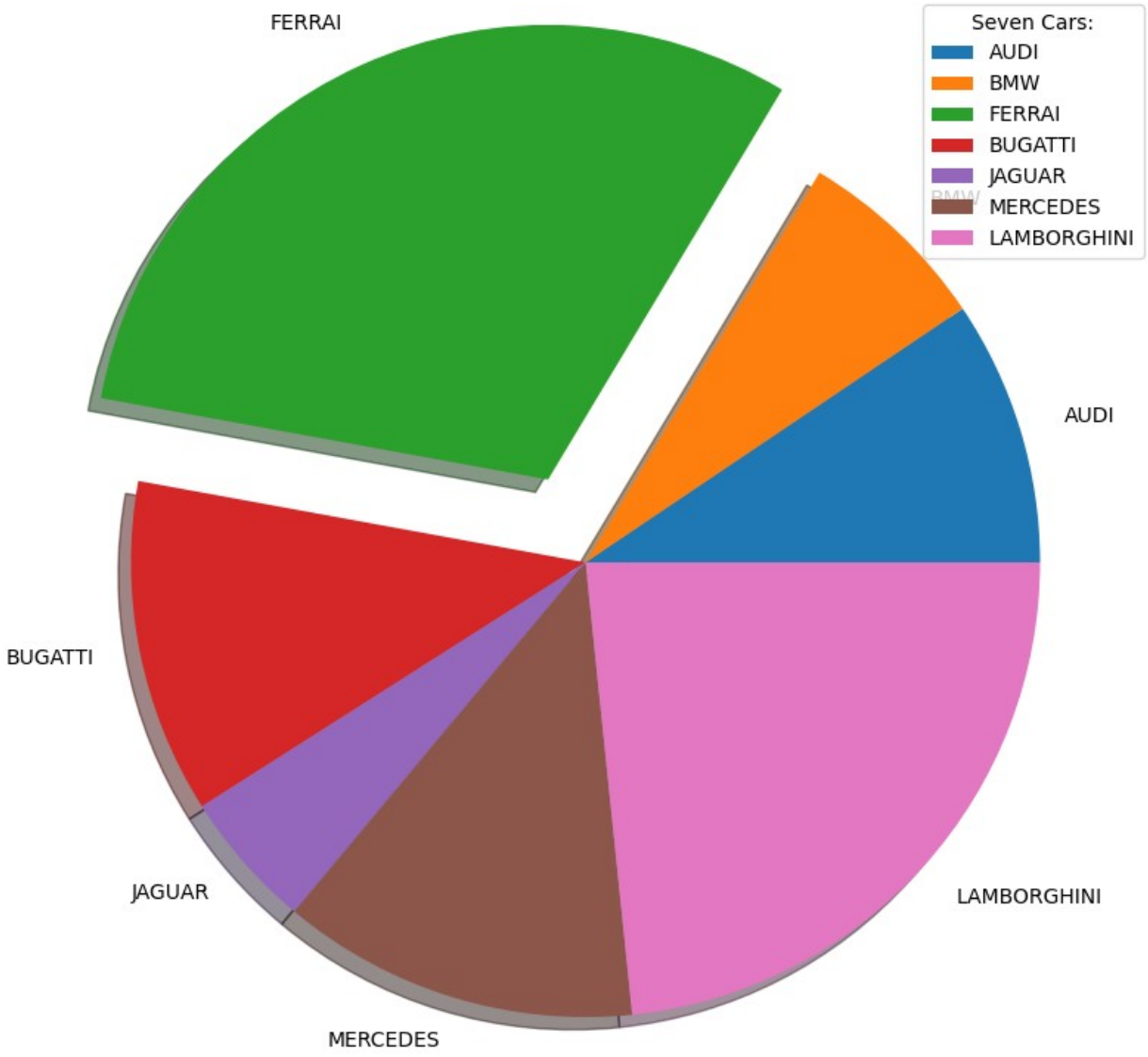
```
cars = ['AUDI', 'BMW', 'FERRAI', 'BUGATTI', 'JAGUAR', 'MERCEDES',
'LAMBORGHINI']
data = [23, 17, 75, 29, 12, 31, 57]

fig = plt.figure(figsize =(10, 7))
plt.pie(data, labels = cars)

plt.show()
```




```
cars = ['AUDI', 'BMW', 'FERRAI', 'BUGATTI', 'JAGUAR', 'MERCEDES',
'LAMBORGHINI']
data = [23, 17, 75, 29, 12, 31, 57]
myexplode = [0, 0, 0, 0.2, 0, 0, 0.2]

plt.pie(data, labels = cars, explode = myexplode, shadow = True)
plt.show()
```




```
cars = ['AUDI', 'BMW', 'FERRAI', 'BUGATTI', 'JAGUAR', 'MERCEDES',
'LAMBORGHINI']
data = [23, 17, 75, 29, 12, 31, 57]
myexplode = [0, 0, 0.2, 0, 0, 0, 0]
fig = plt.figure(figsize =(20, 10))
plt.pie(data, labels = cars, explode = myexplode, shadow = True)
plt.legend(title = "Seven Cars:")
plt.show()
```

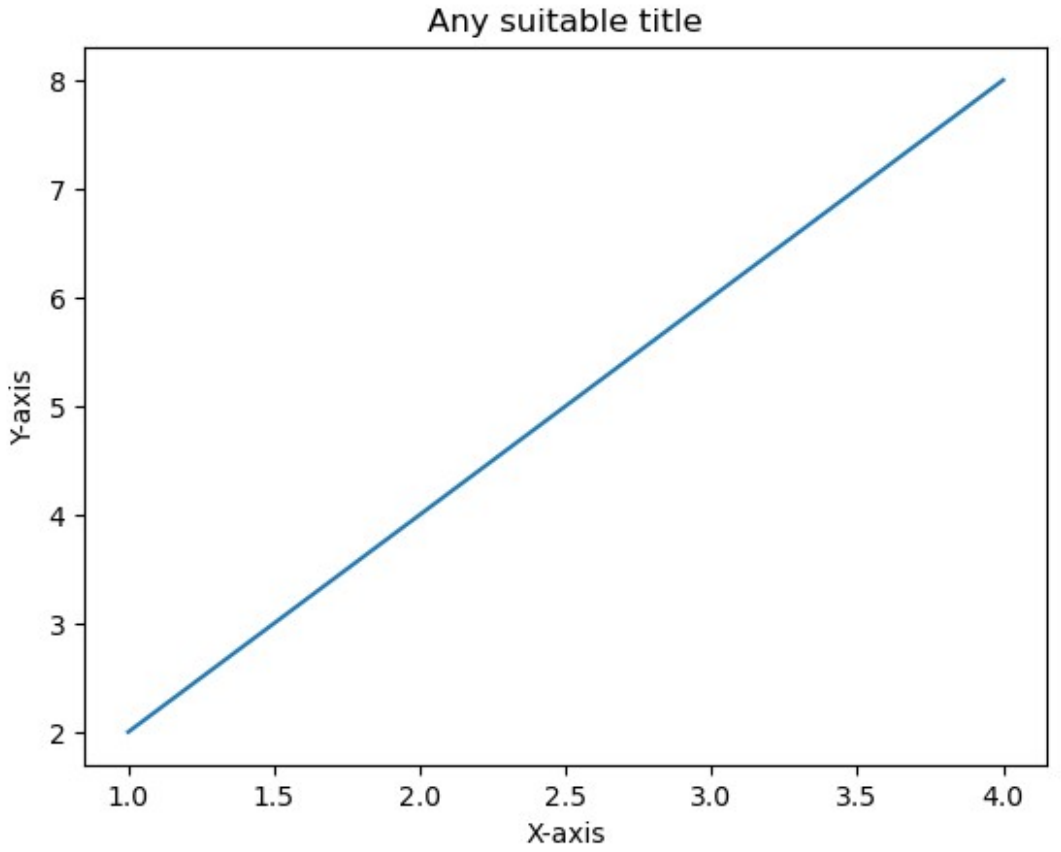


Line Chart

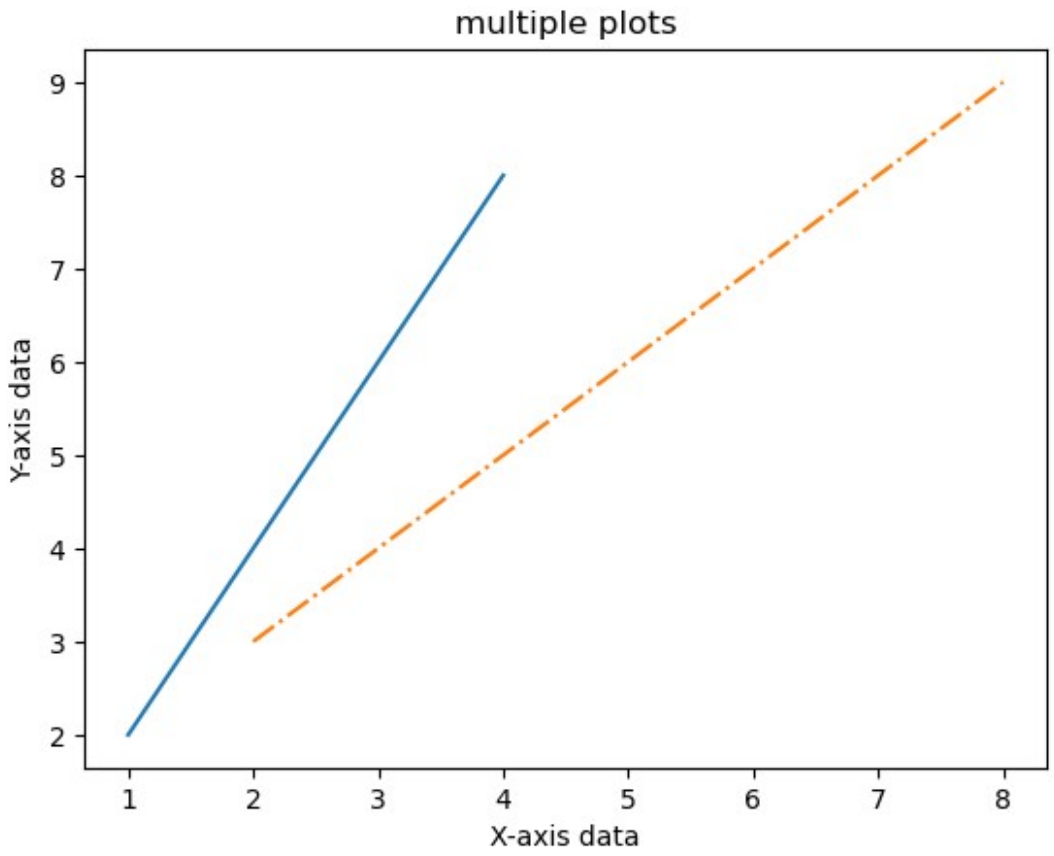
- Line charts are used to represent the relation between two data X and Y on a different axis.
- A line chart is a powerful visualization tool used to display trends and relationships between continuous data points over a defined domain.
- It connects these points with straight lines, creating a graphical representation of the data's evolution.

```
x = np.array([1, 2, 3, 4])
y = x*2
```

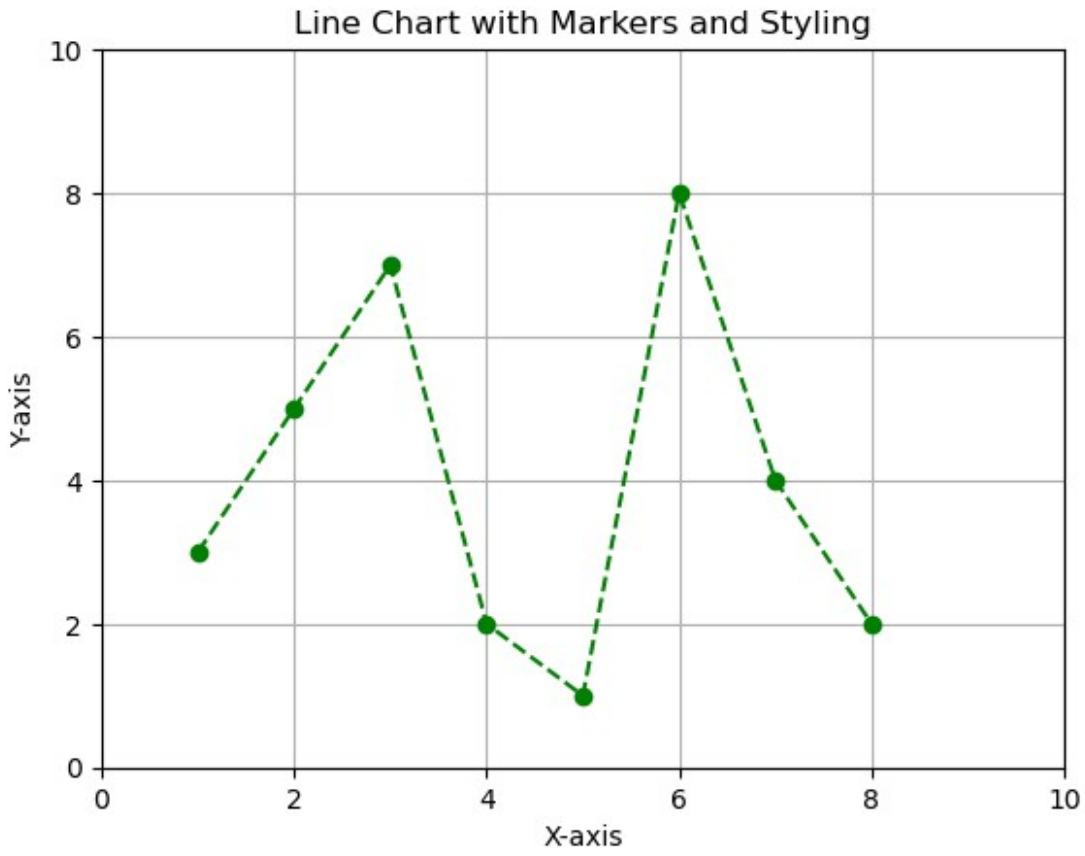
```
plt.plot(x, y)
plt.xlabel("X-axis")
plt.ylabel("Y-axis")
plt.title("Any suitable title")
plt.show()
```




```
x = np.array([1, 2, 3, 4])
y = x*2

plt.plot(x, y)

x1 = [2, 4, 6, 8]
y1 = [3, 5, 7, 9]

plt.plot(x1, y1, '-.')

plt.xlabel("X-axis data")
plt.ylabel("Y-axis data")
plt.title('multiple plots')
plt.show()
```




```
x = [1, 2, 3, 4, 5, 6, 7, 8]
y = [3, 5, 7, 2, 1, 8, 4, 2]

plt.plot(x, y, marker="o", linestyle="--", color="green")

plt.grid(True)
plt.xlim(0, 10)
plt.ylim(0, 10)
plt.xlabel("X-axis")
plt.ylabel("Y-axis")
plt.title("Line Chart with Markers and Styling")

plt.show()
```


Line Chart with Markers and Styling
Y-axis
X-axis
0
2
4
6
8
10