DATA VISUALIZATION

In [2]:
```
#Name : Shreya Sharma
#Roll no. : 46
#Sectin : 3B
#Date : 09/09/2024
```

In [4]:
```
#Aim : To perform data visualization
```

In [3]:
```
import numpy as np
from matplotlib import pyplot as plt
```

In [4]:
```
x=np.arange(1,11)
```

In [7]:
```
x
```

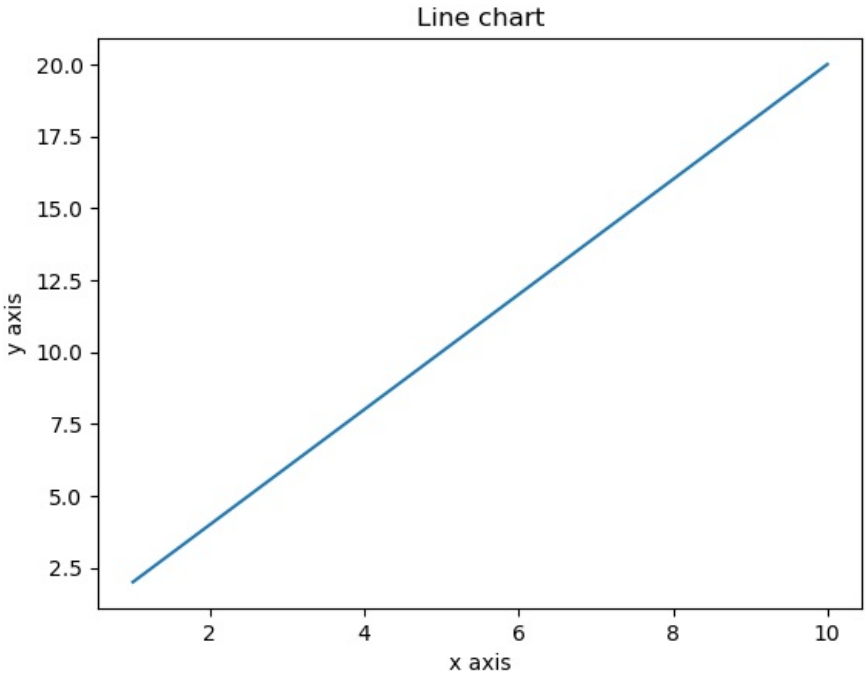
Out[7]:
```
array([ 1,  2,  3,  4,  5,  6,  7,  8,  9, 10])
```

In [9]:
```
y=2*x
```

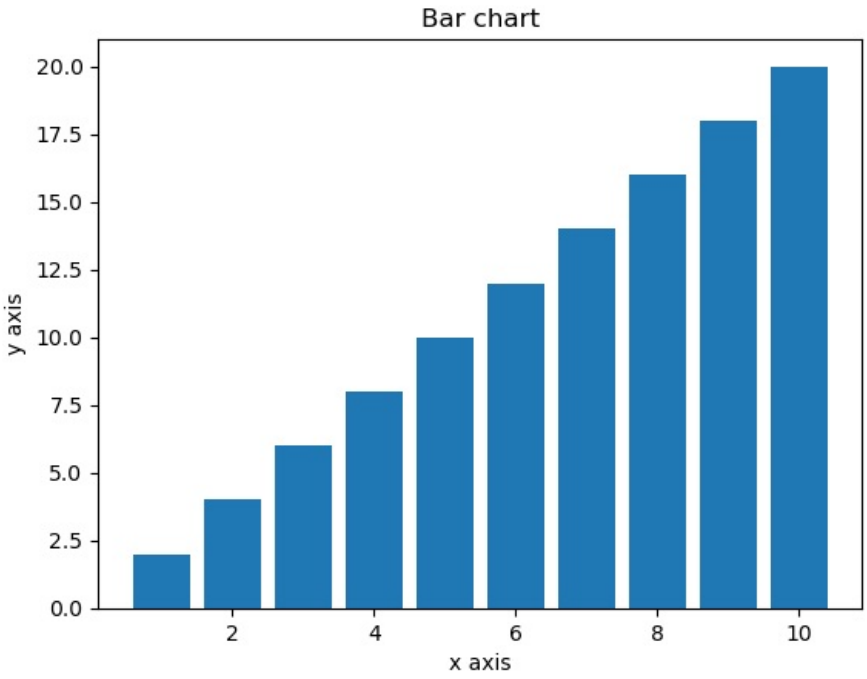
In [11]:
```
y
```

Out[11]:
```
array([ 2,  4,  6,  8, 10, 12, 14, 16, 18, 20])
```

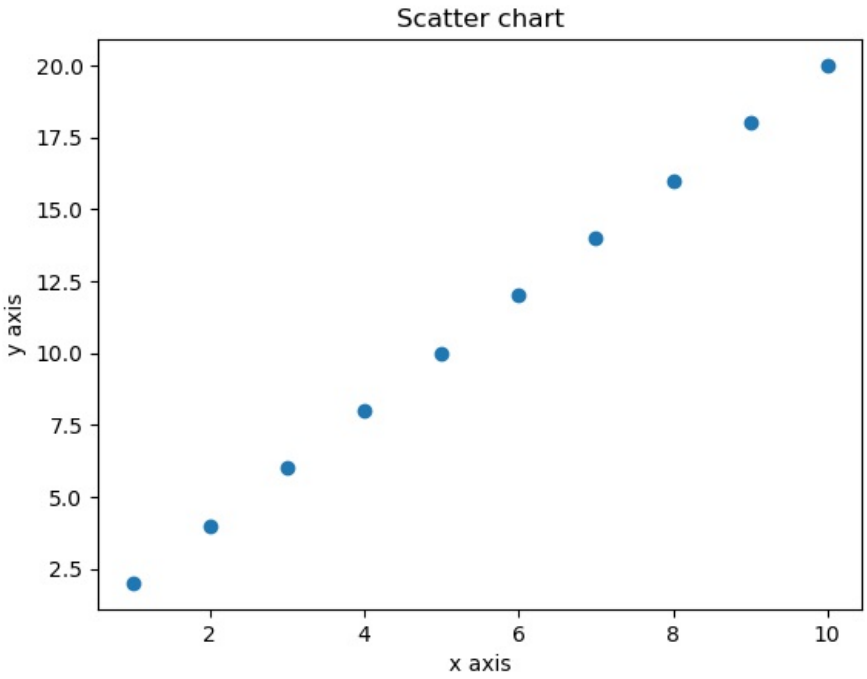
In [13]:
```
plt.plot(x,y)
plt.title("Line chart")
plt.xlabel("x axis")
plt.ylabel("y axis")
plt.show()
```



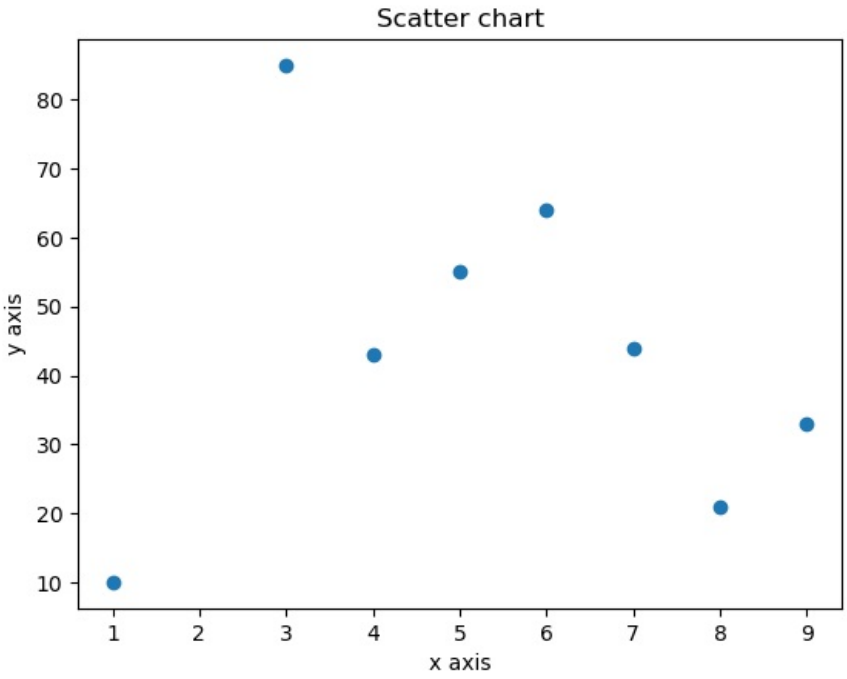
In [15]:
```
plt.bar(x,y)
plt.title("Bar chart")
plt.xlabel("x axis")
plt.ylabel("y axis")
plt.show()
```



In [17]:
```
plt.scatter(x,y)
plt.title("Scatter chart")
plt.xlabel("x axis")
plt.ylabel("y axis")
plt.show()
```

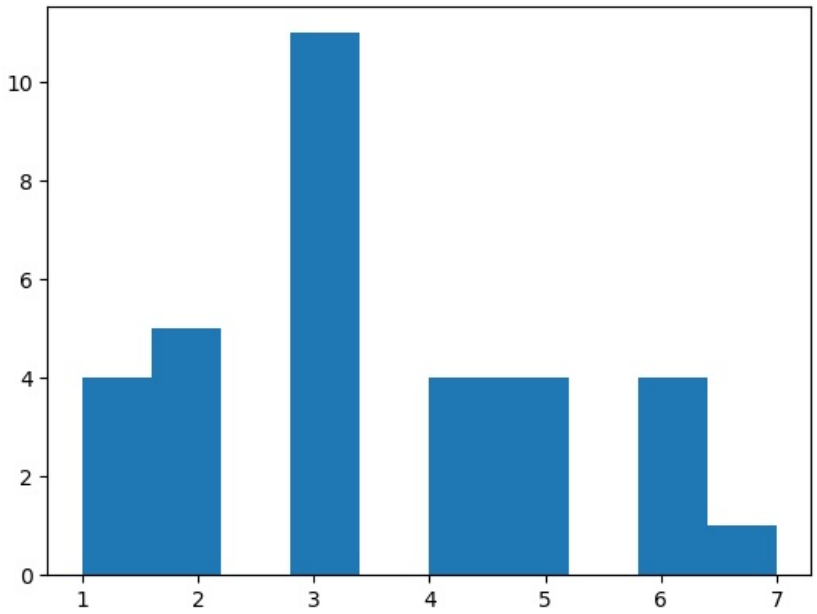


In [25]:
```
a=(1,5,8,6,3,7,9,4)
b=(10,55,21,64,85,44,33,43)
plt.scatter(a,b)
plt.title("Scatter chart")
plt.xlabel("x axis")
plt.ylabel("y axis")
plt.show()
```



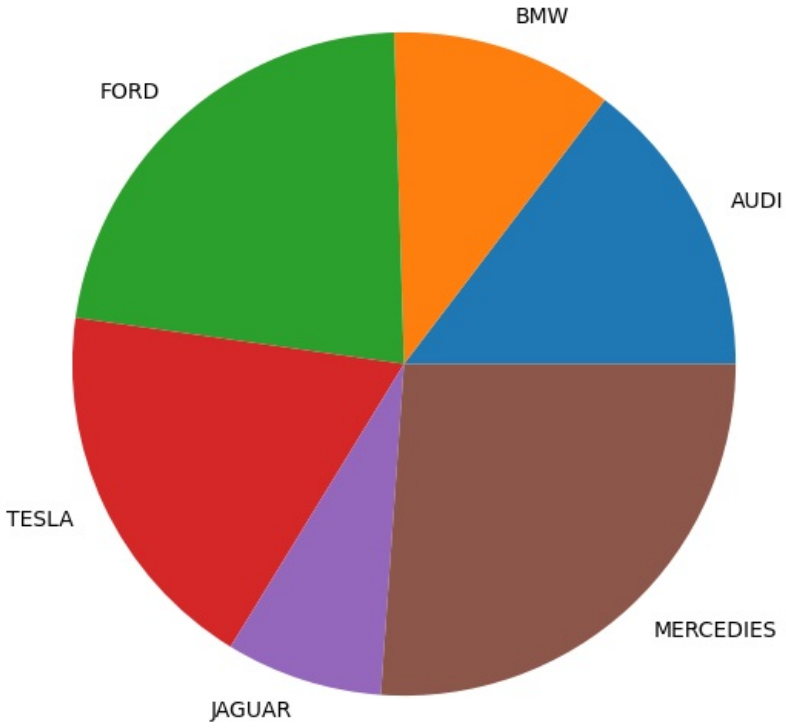
In [21]:
```
H=1,2,3,3,4,6,7,4,3,2,1,2,3,4,5,5,6,6,5,4,3,3,3,3,3,3,3,5,6,2,1,1,2
```

In [19]:
```
plt.hist(H)
plt.show()
```



In [27]:
```
cars = ['AUDI', 'BMW', 'FORD', 'TESLA', 'JAGUAR', 'MERCEDIES']
data = [23, 17, 35, 29, 12, 41]
```

In [29]:
```
fig = plt.figure(figsize=(10,7))
plt.pie(data, labels=cars)
plt.show()
```



In [ ]: