In [1]:
```
#Experiment no.6
```

In [36]:
```
#Aim :To perform data visualization
```

In [9]:
```
#Name:Srushti Bawane
#Roll no.:5
#sec:B
#sub:ET 1
#date:10-10-2025
```

In [5]:
```
import numpy as np
from matplotlib import pyplot as plt
```

In [6]:
```
x=np.arange(1,11)
```

In [11]:
```
x
```

Out[11]:
```
array([ 1,  2,  3,  4,  5,  6,  7,  8,  9, 10])
```

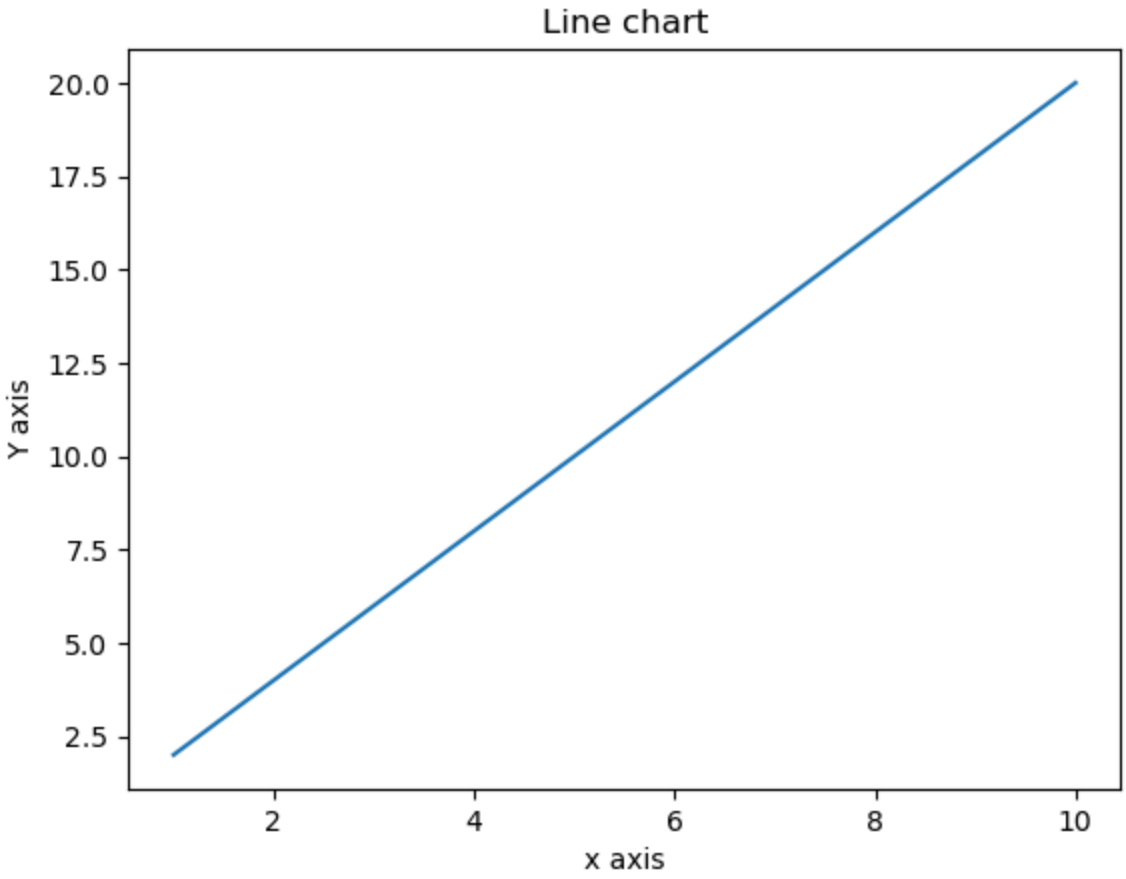
In [12]:
```
y=x*2
```

In [13]:
```
y
```

Out[13]:
```
array([ 2,  4,  6,  8, 10, 12, 14, 16, 18, 20])
```

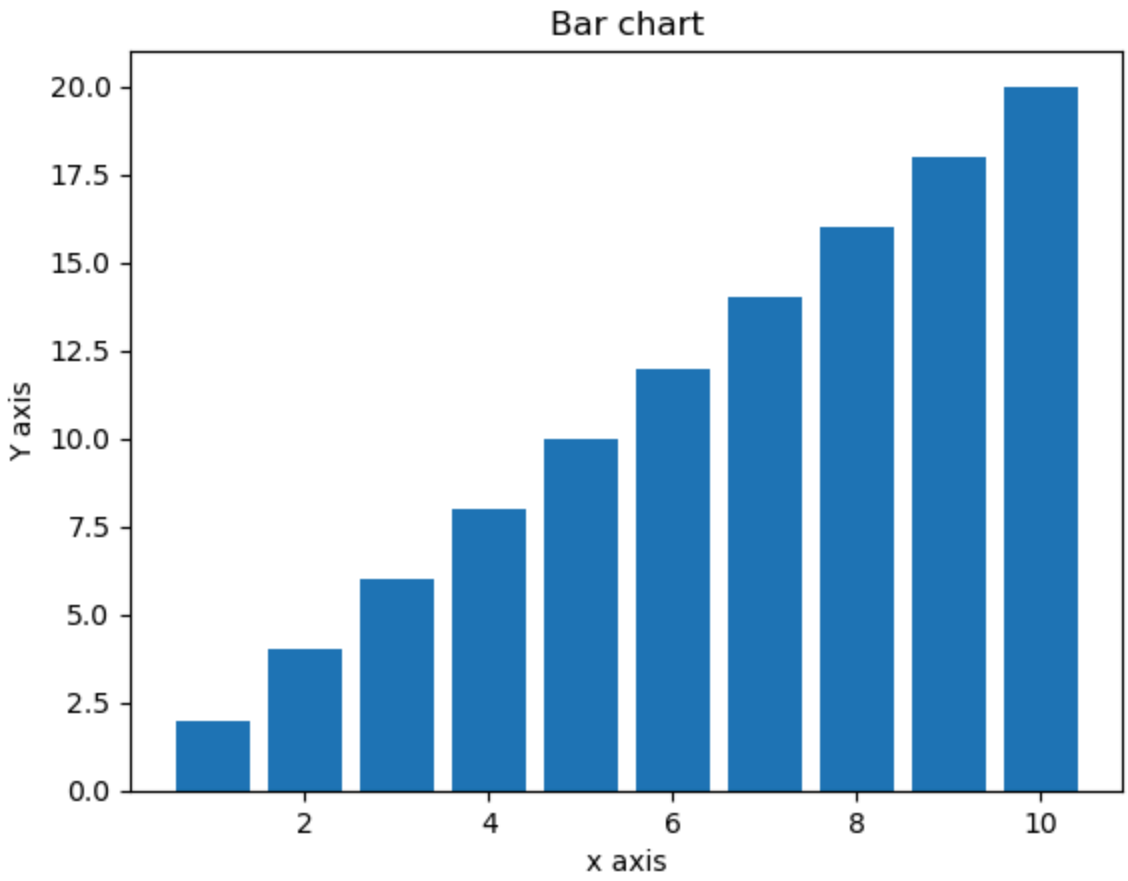
Line Chart

In [18]:
```
plt.plot(x,y)
plt.title("Line chart")
plt.xlabel("x axis")
plt.ylabel("Y axis")
plt.show()
```



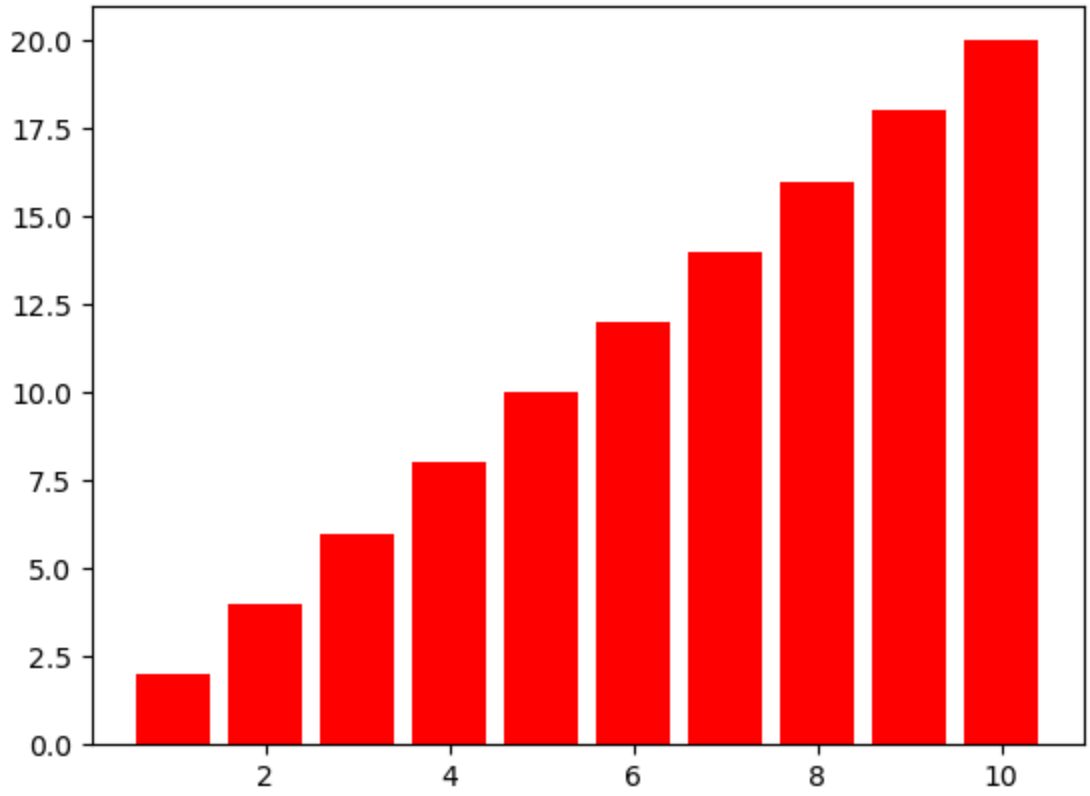
Bar chart

In [19]:
```
plt.bar(x,y)
plt.title("Bar chart")
plt.xlabel("x axis")
plt.ylabel("Y axis")
plt.show()
```



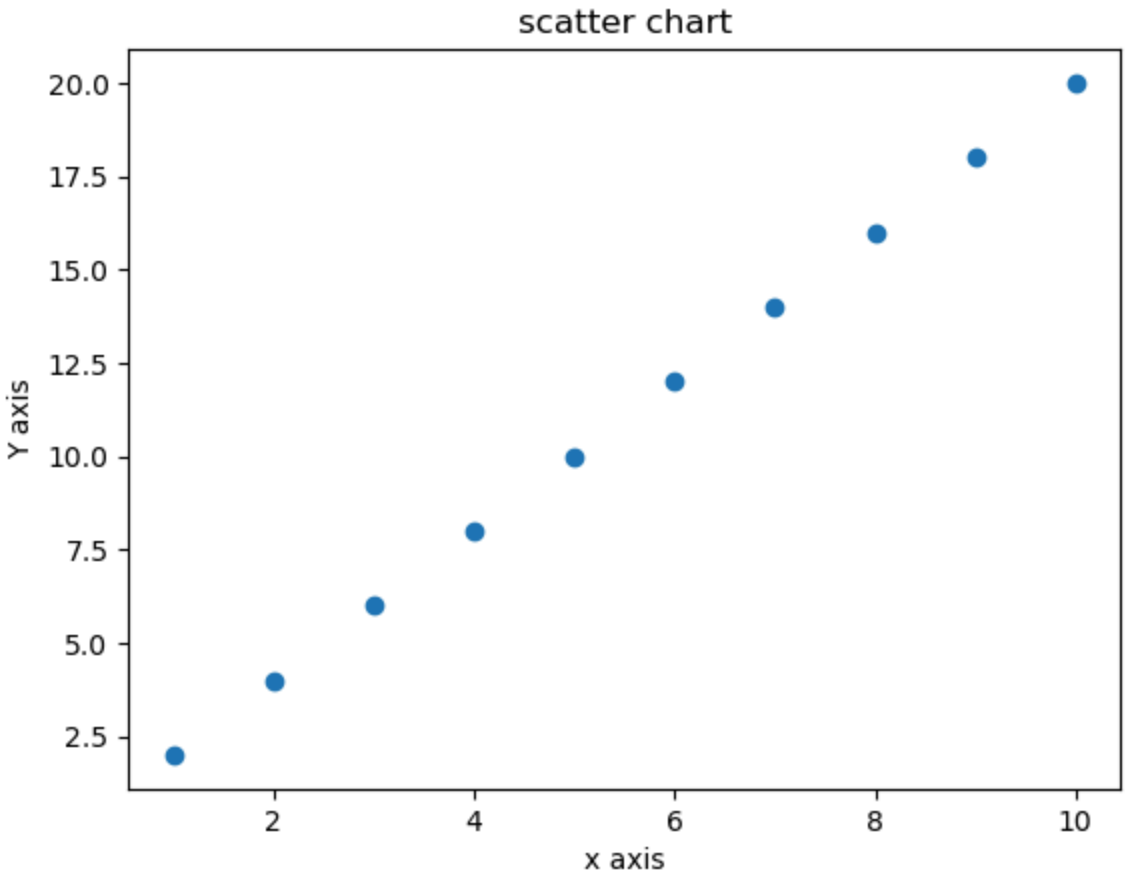
In [20]:
```
plt.bar(x,y, color='red')
```

Out[20]: <BarContainer object of 10 artists>

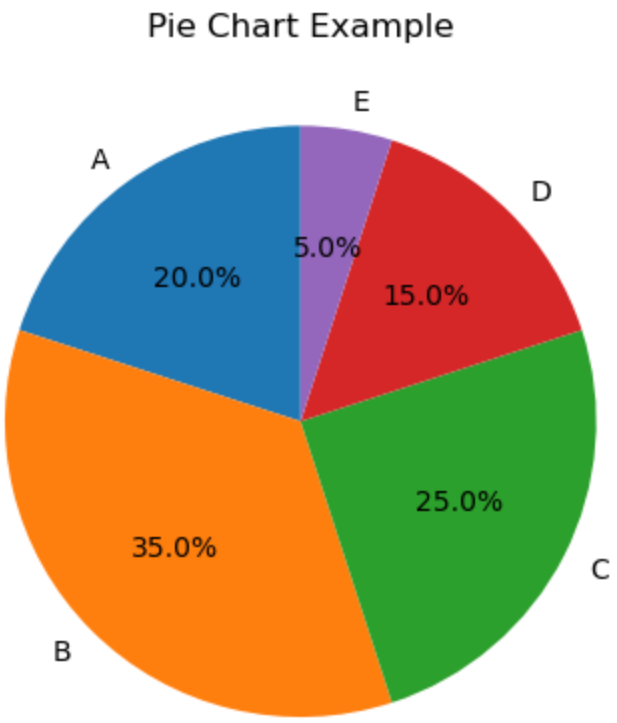


Scatter plot

In [23]:
```
a=(1,5,3,9,4,7)
b=(22,35,66,55,88,99)
plt.scatter(x,y)
plt.title("scatter chart")
plt.xlabel("x axis")
plt.ylabel("Y axis")
plt.show()
```

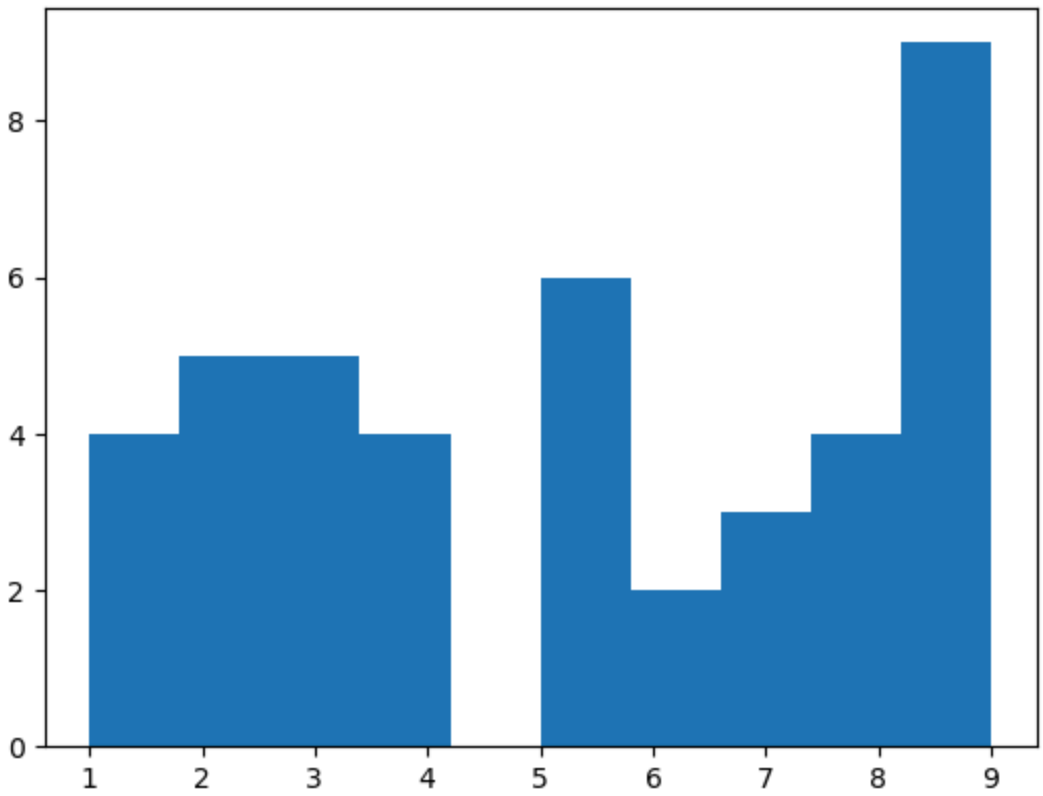


In [27]:
```
c = [20, 35, 25, 15, 5]
d = ['A', 'B', 'C', 'D', 'E']
plt.pie(c, labels=d, autopct='%1.1f%%', startangle=90)
plt.title("Pie Chart Example")
plt.show()
```



In [33]:
```
H=[1,2,3,1,1,1,2,2,2,2,3,3,3,3,4,5,6,4,4,4,5,5,5,5,5,6,7,7,7,8,8,8,8,9,9,9,9,9,9,9,
```

In [35]:
```
plt.hist(H)
plt.show()
```



In [ ]: