data visualization

In [1]:
```
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#Section :3A
#Date:27/07/2024
```

In [2]:
```
# 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 [5]:
```
x
```

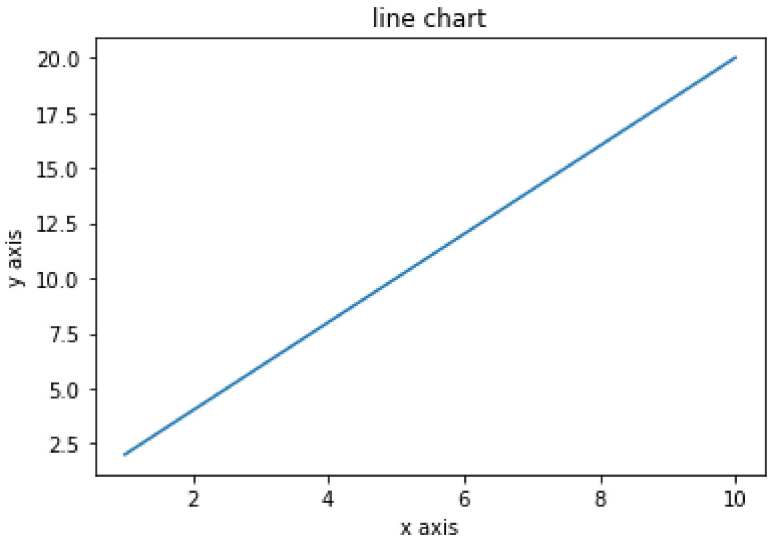
Out[5]:
```
array([ 1,  2,  3,  4,  5,  6,  7,  8,  9, 10])
```

In [6]:
```
y=2*x
```

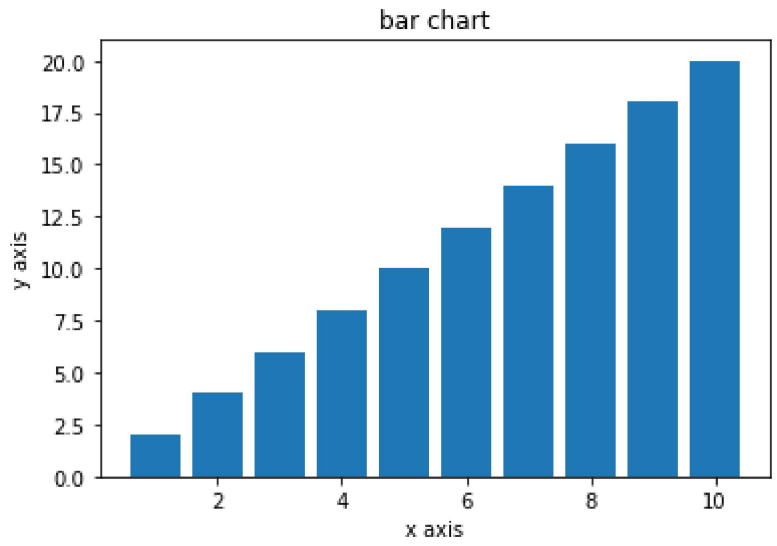
In [7]:
```
y
```

Out[7]:
```
array([ 2,  4,  6,  8, 10, 12, 14, 16, 18, 20])
```

In [8]:
```
plt.plot(x,y)
plt.title("line chart")
plt.xlabel("x axis")
plt.ylabel("y axis")
plt.show()
```

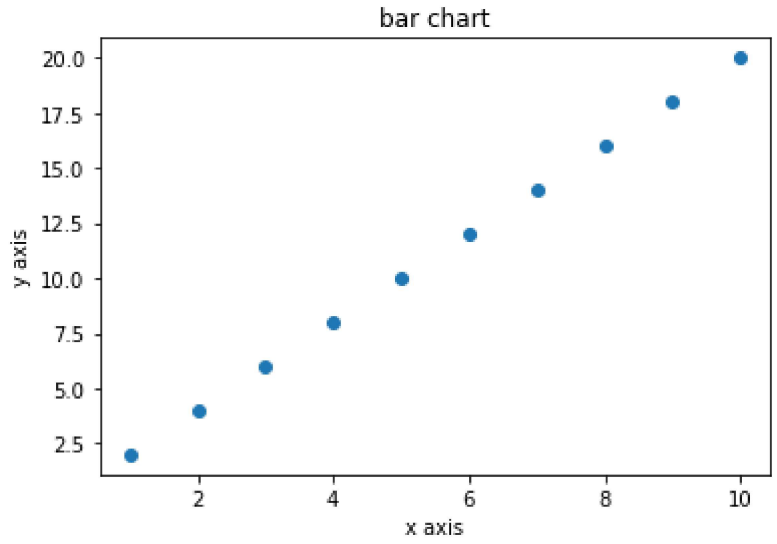


In [10]:
```
plt.bar(x,y)
plt.title("bar chart")
plt.xlabel("x axis")
plt.ylabel("y axis")
plt.show()
```



scatter plot

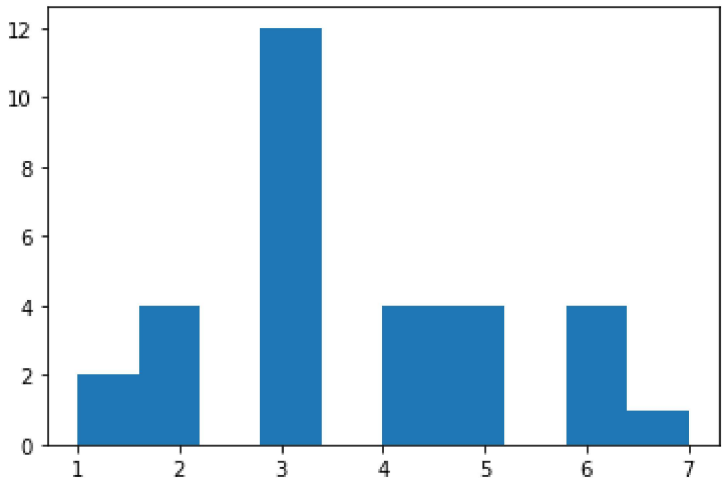
In [13]:
```
 plt.scatter(x,y)
 plt.title("bar chart")
 plt.xlabel("x axis")
 plt.ylabel("y axis")
plt.show()
```



histogram

In [16]:
```
H=[1,2,3,3,4,6,7,4,3,2,1,2,3,4,5,5,6,6,5,4,3,3,3,3,3,3,3,5,6,3,2]
```

In [17]:
```
plt.hist(H)
plt.show()
```



In [ ]: