```
import requests as rq
api="da20f2cfab184bcd9c353632242802"
city=input("Enter city name")
url=f"http://api.weatherapi.com/v1/current.json?key={api}&q={city}"
response=rq.get(url)
data=response.json()
data
```

```
Enter city nametanuku
{'location': {'name': 'Tanuku',
  'region': 'Andhra Pradesh',
  'country': 'India',
  'lat': 16.75,
  'lon': 81.7,
  'tz_id': 'Asia/Kolkata',
  'localtime_epoch': 1709101380,
  'localtime': '2024-02-28 11:53'},
 'current': {'last_updated_epoch': 1709100900,
  'last_updated': '2024-02-28 11:45',
  'temp_c': 34.3,
  'temp_f': 93.7,
  'is_day': 1,
  'condition': {'text': 'Sunny',
   'icon': '//cdn.weatherapi.com/weather/64x64/day/113.png',
   'code': 1000},
  'wind_mph': 4.9,
  'wind_kph': 7.9,
  'wind_degree': 103,
  'wind_dir': 'ESE',
  'pressure_mb': 1013.0,
  'pressure_in': 29.91,
  'precip_mm': 0.0,
  'precip_in': 0.0,
  'humidity': 32,
  'cloud': 3,
  'feelslike_c': 34.7,
  'feelslike_f': 94.4,
  'vis_km': 10.0,
  'vis_miles': 6.0,
  'uv': 8.0,
  'gust_mph': 5.7,
  'gust_kph': 9.1}}
```

```
type(data )
```

```
dict
```

```
print("city:",data["location"]["name"])
```

```
city: Tanuku
```

```
print("state:",data["location"]["region"])
```

```
region: Andhra Pradesh
```

```
print("country:",data["location"]["country"])
```

```
country: India
```

```
print("Temperature in celsius:",data["current"]["temp_c"])
```

```
Temperature in celsius: 34.3
```

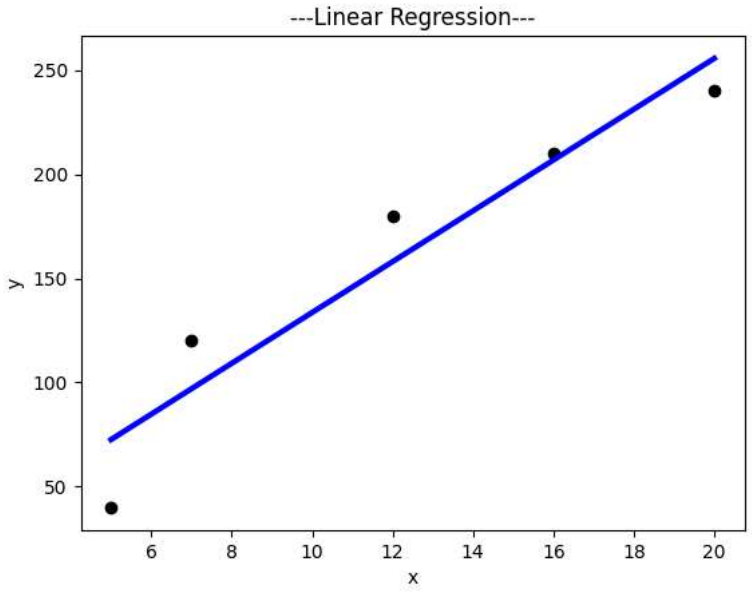
```
if(response==200):
  print("city name not fond")
else:
  print("City:",data["location"]["name"])
  print("State:",data["location"]["region"])
  print("Country:",data["location"]["country"])
  print("Temperature in celsius:",data["current"]["temp_c"])
  print("wind speed:",data["current"]["wind_mph"])
  print("wind direction:",data["current"]["wind_dir"])
  print("Humidity:",data["current"]["humidity"])
  print("feels like:",data["current"]["feelslike_c"])
  print("cloud:",data["current"]["cloud"])
```

```
City: Tanuku
State: Andhra Pradesh
Country: India
Temperature in celsius: 34.3
wind speed: 4.9
wind direction: ESE
Humidity: 32
feels like: 34.7
cloud: 3
```

```
from sklearn.linear_model import LinearRegression
LR=LinearRegression()
t=[[5],[7],[12],[16],[20]]
m=[40,120,180,210,240]
LR.fit(t,m)
print(LR.predict([[5.5]]))
print(LR.predict([[25]]))
```

```
[78.64935065]
[316.7012987]
```

```
import matplotlib.pyplot as plt
plt.scatter(t,m,color='black')
y_pred=LR.predict(t)
plt.plot(t,y_pred,color="blue",linewidth=3)
plt.xlabel("x")
plt.ylabel("y")
plt.title("---Linear Regression---")
plt.show()
```




```
# Distance and corresponding probability data
import numpy as pd
from sklearn.linear_model
distances = np.array([1,2,5,10,15,20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30,35,40,41,47,50]).reshape(-1, 1)
probabilities = np.array([1,1,1,1,1,1,0.9, 0.85, 0.73, 0.67, 0.5, 0.47, 0.39, 0.31, 0.25, 0.15,0,0,0,0,0])
```