In [1]:
```
import pandas as pd
```

In [2]:
```
df=pd.read_csv("C:\\Users\\praha\\OneDrive\\Desktop\\Ex-02_DS_Outlier-main\\weight.csv")
```

In [3]:
```
df
```

Out[3]:

	Gender	Height	Weight
0	Male	73.847017	241.893563
1	Male	68.781904	162.310473
2	Male	74.110105	212.740856
3	Male	71.730978	220.042470
4	Male	69.881796	206.349801
...	...	...	...
9995	Female	66.172652	136.777454
9996	Female	67.067155	170.867906
9997	Female	63.867992	128.475319
9998	Female	69.034243	163.852461
9999	Female	61.944246	113.649103

10000 rows × 3 columns

In [4]:
```
df.drop("Gender",axis=1,inplace=True)
```

In [5]:
```
df
```

Out[5]:

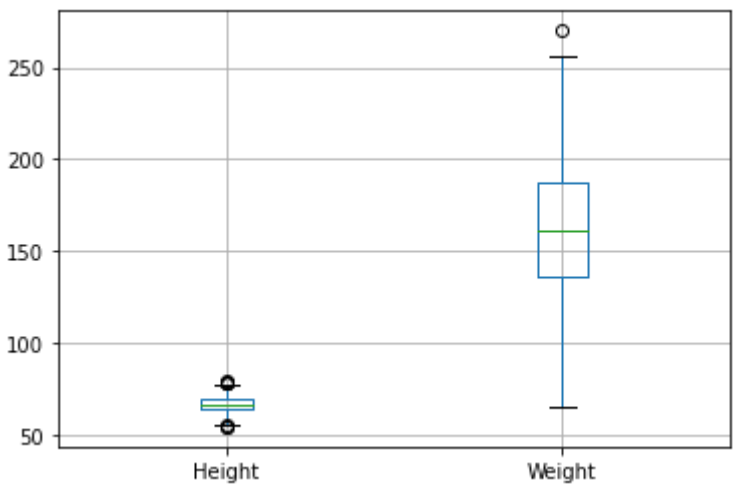
	Height	Weight
0	73.847017	241.893563
1	68.781904	162.310473
2	74.110105	212.740856
3	71.730978	220.042470
4	69.881796	206.349801
...	...	...
9995	66.172652	136.777454
9996	67.067155	170.867906
9997	63.867992	128.475319
9998	69.034243	163.852461
9999	61.944246	113.649103

10000 rows × 2 columns

In [6]:
```
# df=df.drop("Gender",axis=1,inplace=True)
```

In [7]:
```
df.boxplot()
```

Out[7]:
```
<AxesSubplot:>
```



In [8]:
```
from scipy import stats
```

In [9]:
```
import numpy as np
```

In [10]:
```
z=np.abs(stats.zscore(df))
```

In [11]:
```
z
```

Out[11]:

	Height	Weight
0	1.944061	2.505797
1	0.627537	0.027101
2	2.012443	1.597806
3	1.394060	1.825222
4	0.913421	1.398750
...	...	...
9995	0.050660	0.768151
9996	0.181839	0.293631
9997	0.649688	1.026730
9998	0.693125	0.075127
9999	1.149708	1.488507

10000 rows × 2 columns

In [12]:
```
df
```

Out[12]:

	Height	Weight
0	73.847017	241.893563
1	68.781904	162.310473
2	74.110105	212.740856
3	71.730978	220.042470
4	69.881796	206.349801
...	...	...
9995	66.172652	136.777454
9996	67.067155	170.867906
9997	63.867992	128.475319
9998	69.034243	163.852461
9999	61.944246	113.649103

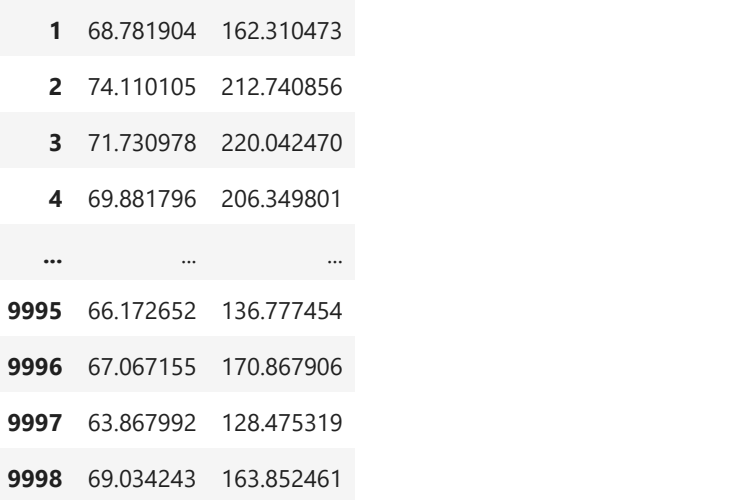
10000 rows × 2 columns

In [13]:
```
df1=df.copy()
```

In [14]:
```
df1=df1[(z<3).all(axis=1)]
```

In [16]:
```
df.boxplot()
```

Out[16]:
```
<AxesSubplot:>
```



In [17]:
```
df1
```

Out[17]:

	Height	Weight
0	73.847017	241.893563
1	68.781904	162.310473
2	74.110105	212.740856
3	71.730978	220.042470
4	69.881796	206.349801
...	...	...
9995	66.172652	136.777454
9996	67.067155	170.867906
9997	63.867992	128.475319
9998	69.034243	163.852461
9999	61.944246	113.649103

9993 rows × 2 columns

In [18]:
```
#interquartile method
df2=df.copy()
```

In [19]:
```
q1=df2.quantile(0.25)
```

In [20]:
```
q3=df2.quantile(0.75)
```

In [21]:
```
IQR=q3-q1
IQR
```

Out[21]:
```
Height     5.668641
Weight    51.351474
dtype: float64
```

In [22]:
```
IQR.Height
```

Out[22]:
```
5.668641245615746
```

In [23]:
```
df2_new=df2[((df2>=q1-1.5*IQR)&(df2<=q3+1.5*IQR)).all(axis=1)]
```

In [24]:
```
df2
```

Out[24]:

	Height	Weight
0	73.847017	241.893563
1	68.781904	162.310473
2	74.110105	212.740856
3	71.730978	220.042470
4	69.881796	206.349801
...	...	...
9995	66.172652	136.777454
9996	67.067155	170.867906
9997	63.867992	128.475319
9998	69.034243	163.852461
9999	61.944246	113.649103

10000 rows × 2 columns

In [ ]:
```

```