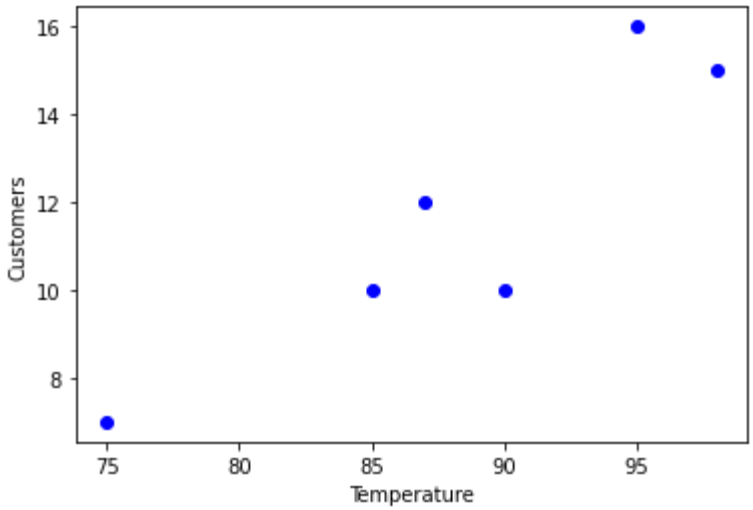
Question 9 - Let's say you are the new owner of a small ice-cream shop in a little village near the beach. You noticed that there was more business in the warmer months than the cooler months. Before you alter your purchasing pattern to match this trend, you want to be sure that the relationship is real. Help him to find the correlation between the data given.

Temperature Number of Customers 98 15 87 12 90 10 85 10 95 16 75 7

In [ ]:
```
from matplotlib import pyplot as plt
import pandas as pd
import numpy as np
from scipy.stats import pearsonr
```

In [ ]:
```
Temperature = [98, 87, 90, 85, 95, 75]
Customers = [15, 12, 10, 10, 16, 7]
```

In [ ]:
```
plt.scatter(Temperature, Customers, c="blue")
plt.xlabel("Temperature")
plt.ylabel("Customers")
plt.show()
```



In [ ]:
```
Correlation, _ = pearsonr(Temperature, Customers)
```

In [ ]:
```
Correlation
```

Out[ ]:
```
0.9117671365080744
```

The correlation between the 2 variables is positive. As the correlation coefficient is very close to 1, this suggests a highly linear relationship.