

Program Output:

```
Compute for rm
Sum: 3180.03
Mean: 6.28463
Median: 6.2085
Range: 3.561000 8.780000

Compute for medv
Sum: 11401.6
Mean: 22.5328
Median: 21.2
Range: 5.000000 50.000000

Compute for rm and medv
Covariance: 4.49345
Correlation: 0.69536
```

Personally, I much more enjoy using C++ over using R. I believe this is mostly due to familiarity though. I much more well versed in C++ than I am in R at the moment. But I believe my opinion could change as I use R more. It is convenient that R does have the functions at the ready to be used though.

The calculated mean, median, and range are useful for general data analysis. Before moving on to the machine learning application of the data, one must have a good data set, and the calculated statistical measures can help figure out if the data set is good to use.

Covariance describes the relationship between the 2 vectors. If positive the data points then to move up or down together, if negative, the data points tend to move up or down opposite of each other. The Correlation is a measure of the linear relationship of the 2 vectors. In machine learning, your output depends very heavily on input data. This input data needs to be selected specifically for the application. Covariance and Correlation can be used to determine if a data set worth using.