ASSIGNMENT 3

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# Screenshots

## Number of Users: 1

### summary report

A screenshot of a computer

Description automatically generated

### CPU/MEM graphs

A screenshot of a computer

Description automatically generated

## Number of Users: 2

### summary report

A screenshot of a computer

Description automatically generated

### CPU/MEM graphs

A screenshot of a computer

Description automatically generated

## Number of Users: 3

### summary report

A screenshot of a computer

Description automatically generated

### CPU/MEM graphs

A screenshot of a computer

Description automatically generated

## Number of Users: 4

### summary report

A screenshot of a computer

Description automatically generated

### CPU/MEM graphs

A screenshot of a computer

Description automatically generated

## Number of Users: 5

### summary report

A screenshot of a computer

Description automatically generated

### CPU/MEM graphs

A screenshot of a computer

Description automatically generated

## Number of Users: 10

### summary report

A screenshot of a computer

Description automatically generated

### CPU/MEM graphs

A screenshot of a computer

Description automatically generated

## Number of Users: 15

### summary report

A screenshot of a computer

Description automatically generated

### CPU/MEM graphs

A screenshot of a computer

Description automatically generated

## Number of Users: 20

### summary report

A screenshot of a computer

Description automatically generated

### CPU/MEM graphs

A screenshot of a computer

Description automatically generated

## Number of Users: 25

### summary report

A screenshot of a computer

Description automatically generated

### CPU/MEM graphs

A screenshot of a computer

Description automatically generated

## Number of Users: 50

### summary report

A screenshot of a computer

Description automatically generated

### CPU/MEM graphs

A screenshot of a computer

Description automatically generated

# Data Table and Graphic

## Data Table



## Data Graphic

# Explanation of Testing Results

According to the plot above, the average response time also increases as the number of users increases. As the number of users increases gradually, the ratio (number of users / average response time) keeps around 0.20 to 0.23 slowly. This indicates that the response time will remain the same when the hardware operates at total capacity.

The records of the PerfMon plugin display a trend: when the testing is running, the localhost memory usage does not have noticeable changes. It is always in the range of 70 to 80. At the same time, that of CPU increases in general (The charts of user numbers 1 and 2 may be influenced by the testing program itself when starting Jmeter, it uses more resources temporarily, but the response number is limited, this causes the performance metric of CPU on the chart is not as expectation), it is from less than 8 (3 users) to over 50 (50 users).

In conclusion, the performance bottleneck depends on the CPU. The performance metric of memory has little influence by the increasing users, but the CPU’s is easy to be found. Thus, higher CPU performance metrics can be related to longer average responsive time.