Git URL: <https://github.ccs.neu.edu/yihtian/CS6650/tree/master/Assignment3>

Results:

A close up of text on a black background

Description automatically generated

A close up of text on a black background

Description automatically generated

A close up of text on a black background

Description automatically generated

A close up of text on a black background

Description automatically generated

Charts for throughput and mean response time:

GCP compare to AWS:

Compare to AWS, GCP runs slower, where AWS mean response time is around 100ms and GCP mean response time around 200ms, thus wall time for GCP running seems much longer than AWS performance. And one specific thing is, when running for POST and GET methods, AWS response time for both POST and GET are similar, don’t have great difference, but GCP GET responses with much longer time, which is around 3000ms per request, while POST only costs around 200ms. To improve this performance, I added a concurrent hushmap in servlet to act as a simple cache layer, and this reduced partial GET request respond time to around 150ms and improved total performance.

The cost for both services looks similar, no great difference.

Both services required almost same webapp structure, except for GCP requires extra appengine-web.xml file. But to upload and allows server start working is more easier on GCP, which requires less commands and settings.