

Single Instance Benchmarking

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Benchmark a single instance's performance

Measuring Web Server Limits for each Instance Type:

The company is interested in determining the load limits of three instance types: **m1.small**, **m1.medium** and **m1.large**. In this part, we will setup an automated benchmarking system using EC2 APIs. You are free to use the EC2 CLI tools, AWS SDKs, or boto for bash, java, or python scripting respectively.

Note: For this checkpoint, assign the tag with **Key: Project** and **Value: 2.1** for all resources

Provision an **m1.medium** instance with the AMI **ami-69e3d500**, to serve as your **launchpad** for **load testing instance** and **run your script/program from it**. You should setup credentials first. For Java, modify the **AwsCredentials.properties** file (in the **src** directory on your local machine) to include your credentials. If you are using CLI-tools within bash scripts, setup the required credentials in **\$HOME/.bashrc**, and enter your credentials in **\$AWS_CLOUDWATCH_HOME/credential-file-path.template**, as this file has been setup as a common credential file for all of the command-line API tools. If you are using boto for python, setup a credential file called **\$HOME/.boto** with the credentials as per [the documentation](#).

1. **Starting with m1.small**, launch a single EC2 instance with the ami **ami-69e3d500**. Make sure the instance has **detailed monitoring enabled** in order to collect metrics at **1-minute intervals**. Ensure that the instance is **launched and ready** (by monitoring its status) before proceeding to the next step
2. Run **\$HOME/benchmark/apache_benchmark.sh** from your **load testing instance** to the freshly launched instance **at least 10 times**. The benchmark should be run using 100,000 requests with 100 running concurrently using the **sample.jpg** image in the same directory. Make sure that the benchmark is targeting the **Public DNS** address of the instance that was just launched in step 1.
3. Store the standard output of the **apache_benchmark** into a file (apart from the log file)
4. Use **Amazon Cloudwatch to retrieve the CPUUtilization metric** of the instance during the running period of the benchmark.
5. Terminate the instance that was launched in step 1. Do not terminate your launchpad instance, on which your script/program is currently executing.
6. Repeat steps 1-5 for each instance type (m1.small, m1.medium and m1.large).

Once you have obtained the data, please compute the average Responses/sec processed and the average response time. Remember to terminate all instances after you finish all your work.

checkpoint

Single Instance Benchmarks



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