

Assignment 7

Cloud Infrastructure Deployment

Question 1:

1. Write a simple index.html webpage
2. Write a python script(s) to perform the following actions:
 - I. Push the above created index.html file to your git repository
 - II. Create an ec2 fleet with an auto-scaling group of a minimum of 2 instances and a maximum of 3 instances using boto3
 - III. Install and configure an Apache webserver on each of these instances
 - IV. Use Paramiko to fetch the index.html file from your git repository to instances. Move it to a /var/www/html directory.
 - V. Do not include any credentials/access keys in your code

Testing:

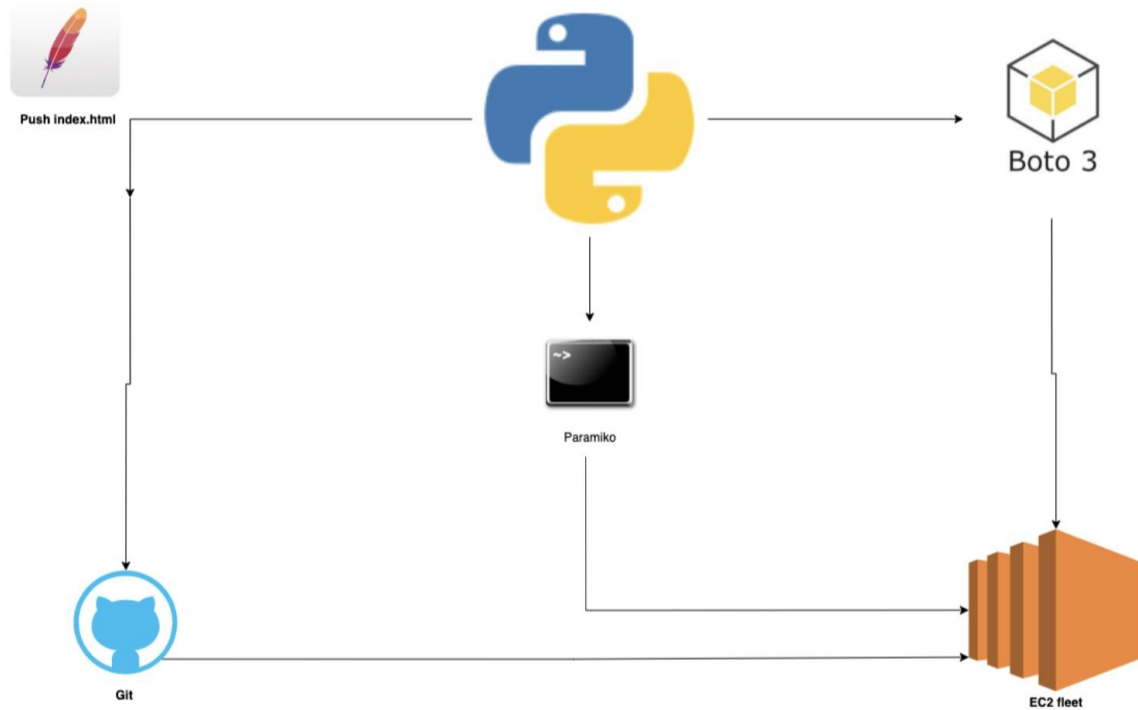
- Terminate one instance using CLI or console and test if the auto-scaling group is working.
- You should be able to access the webpage using public IP or AWS-provided public DNS.

Note: When a new instance spins up it should be auto-configured to run the webserver.

Question 2:

Automate the creation/launching of an EC2 instance in AWS by using infrastructure as a code (CloudFormation can also be used for this question).

You can refer to the below diagram for Question 1:



Note: After the due date, a viva will be conducted for this assignment. The students who will not participate in the viva will not get any points/marks for this assignment.