
Exercise – Getting to grips with AWS

Objective

The objective of this exercise is to have a look at some of the services provided by AWS, start up a linux server, connect to it and then get apache up and running to say hello!

Overview

Much of this exercise is covered by the Quick Guides provided, so we won't repeat the information here.

1. Login to your AWS Console
2. Enter your username and your password and you will be logged in and have access to the aws dashboard.

Part 1: Create an aws instance

Create a new instance using AWS. See "QG - Launching an EC2 instance" for the step by step guide to doing so. The setup should be as follows:

- AMI: Amazon Linux AMI 2018.x.x
- Size: t2.micro
- Disk Space: 8 GiB
- Ports: Open port 80/tcp for access from anywhere

Type ⓘ	Protocol ⓘ	Port Range ⓘ	Source ⓘ
SSH ▾	TCP	22	Custom ▾ 0.0.0.0/0
HTTP ▾	TCP	80	Anywhere ▾ 0.0.0.0/0, ::/0
Add Rule			

Ensure that you have downloaded your key from the aws dashboard. You will need it!

Step 2: Connect to your linux machine

If you are on windows, then either see the quick guide: "QG - Use Putty to connect to EC2 instance over SSH" or we can connect using PowerShell with the following lines:

```
ICACLS "keyname.pem" /reset /C      #reset permissions
ICACLS "keyname.pem" /grant:r "$($env:USERNAME):(R)" /C #read
ICACLS "keyname.pem" /inheritance:r /C      #stop inheritance
ssh -i "keyname.pem" ec2-user@3.92.163.43 #connect
```

If you are on linux or using a mac, then we can connect via the command line with the following two lines:

```
$ chmod 400 keyname.pem      #change the key to read only
$ ssh -i keyname.pem username@ipaddress # connect
```

Step 3: Lets do something fun

We're going to install an apache webserver (remember opening port 80 at the start). You should be connected to your machine via PuTTY. PowerShell or the terminal.

Fortunately, installing apache is quite simple, we can just pull it down using the package manager. First, as is good practice, update the operating system, then install apache.

```
$ sudo yum update      # update all
$ sudo yum install -y httpd      # install apache
$ sudo service httpd start      # start the service
```

Enter the public IP address of the instance in a browser and you should see the apache start page.

Explore AWS

Have a play around with launching and connecting to some servers with aws. Windows servers require remote desktop rather than ssh access, so see if you can create a windows machine and connect to that using the remote desktop viewer.

Some people prefer to interact with systems like AWS entirely through the command line. There are a set of command line tools that you can use to launch and inspect instances described at: <https://aws.amazon.com/cli/>

Have a play around and get comfortable with the idea that we will be creating, using and destroying a lot of virtual machines over the course of this week!