

Working with an EC2 instance

AWS - Assignment 1

Note(s):

1. *Make sure you clean up your AWS environment once the project is complete to avoid incurring any unnecessary charges.*

Task 1 (Deploy a new EC2 instance with apache)

1. Go to EC2 dashboard and click "Launch Instance"
2. Create an EC2 instance as per the following specifications:
 - AMI - Amazon Linux 2 AMI
 - Instance Type - t2.micro or t3.micro
 - VPC - Default VPC
 - Storage - Default
 - Security Group - should allow port 80 and 22 ingress
 - User Data - Put the following script in the user data section.

```
#!/bin/bash
yum update -y
yum install -y httpd
systemctl start httpd
systemctl enable httpd
echo "Hello World from $(hostname -f)" >
/var/www/html/index.html
```

Task 2 (Create a new EBS Volume and attach it the EC2 instance)



Note(s): Before you start with this task, take a screenshot of the output for the command "lsblk". This will help us compare the disks once we have attached a new EBS volume.

1. Go to EC2 Dashboard
2. Go to Volumes and create a new volume with following details:
 - Size - 20 GB
 - Type - General Purpose SSD (gp3)
3. Attach this volume to your existing EC2 instance (Created in previous steps)
4. SSH into your EC2 instance via any method you prefer.
5. Check the output for command "`lsblk`"
6. Validate if it shows the newly attached volume in your instance.

Task 3 (Create a Snapshot of your EBS Volume)

1. Go to EC2 Dashboard
2. Go to Elastic Block Store --> Snapshots
3. Take a snapshot of the newly created Volume
4. Check the snapshot in the list of Snapshots

Task 4 (Terminate All Resources)

1. Go to EC2 Dashboard
2. Terminate the EC2 instance you created in previous steps.
3. Delete the EBS Volume you created in previous steps
4. Delete the snapshot created in the previous steps

Reference:

- Working with User data in AWS:
<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/user-data.html>
- EBS Snapshots:
<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-creating-snapshot.html>
- Create an EBS Volume:
<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-creating-volume.html>
- Attach an EBS Volume to an EC2 instance:
<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-attaching-volume.html>