31.03.2024

Assignment for Module 2: EC2 and EFS

Tasks To Be Performed:

1. Create an EFS and connect it to 3 different EC2 instances. Make sure that

all instances have different operating systems. For instance, Ubuntu, Red

Hat Linux and Amazon Linux 2.

Go to AWS Console and Select the EC2 Service

1. Open up the AWS Management Console

2. Check for the region [us-east-1(Asia pacific Mumbai)]

3. Search for EC2 in the search box

4. Click on instances to go to the EC2 console

5. Click on Launch Instance

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6. Setup the 1st instance using following configurations:

a. Name : Mahes\_Ubuntu

b. AMI : Quickstart >> UbuntuOS [Any version which is free tier eligible]

c. Instance type : t2.micro [free tier eligible]

d. Key-pair : Create a key pair [rsa and .pem]

e. Security group : Default 7.( launch-wizard-13)Click on Launch Instance.

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Edit Network setting Choose the Custom VPC , public subnet , and enable public IP .

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Click on Launch Instance ,

Now ubuntu instance launched

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Connect with Public IP

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8. Setup the 2nd instance using following configurations:

a. Name : mahesh\_redhat

b. AMI : Quickstart >> Red Hat Linux [Any version which is free tier eligible]

c. Instance type : t2.micro [free tier eligible]

d. Key-pair : Create a key pair [rsa and .pem]

e. Security group : Default (launch-wizard-14)

9. Click on Launch Instance.

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10. Setup the 3rd instance using following configurations:

a. Name : Mahesh\_amazon linux

b. AMI : Quickstart >> Amazon Linux Machine [Any version which is free tier eligible]

c. Instance type : t2.micro [free tier eligible]

d. Key-pair : Create a key pair [rsa and .pem]

e. Security group : Default (launch-wizard-15)

11. Click on Launch Instance.

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Now we will be creating an EFS Volume (Elastic File System) in AWS.

12. Search for EFS on the Search Bar

13. Click on Create a File System

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14. Create a EFS Volume with the following characteristics:

a. Name: Any name

b. VPC : should be same that you have used while creating the instance.

c. Storage Class: Standard

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15. We will be seeing the EFS Volume created and is Available

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Now we will attach this EFS to three EC2 instance that we have made previously.

Amazon-Linux -> Already has amazon-efs-utils so directly make a directory and mount it

1. Make a directory named efs using the following command:

$ sudo mkdir efs

$ ls

2. Click on Attach button on EFS dashboard

3. Copy the command from Mount with DNS

4. Run the command in the machine.

5. Check the storage on the machine.

$ df -h

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Copy the command mount from DNS

sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsize=1048576,hard,timeo=600,retrans=2,noresvport fs-0bfb5220165a62d7b.efs.ap-south-1.amazonaws.com:/ efs

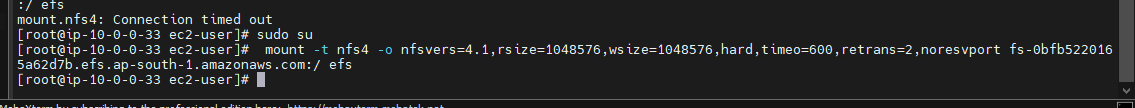
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I have to enable the enable DNS Hostname in my Custom VPC

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Solved by Security group added nfs in inbound rules all the EC2 instances

NFS is Successful mounted in Ubuntu EC2 Insatance.

RHEL -> Import repositories from Github then install packages from that repo and then create a

directory and mount it.

1. Install the package nfs-common

$ sudo yum install nfs-utils -y

2. Make a directory named efs

$ sudo mkdir efs

3. Click on Attach button on EFS dashboard

4. Copy the command from Mount with DNS

5. Run the command in the machine.

6. Check the storage on the machine.

$ df -h

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Now mounf from NFS

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EFS is mounted in Redhat Linus Machne

Now attach the EFS to ubuntu machine

Ubuntu -> install nfs-commons and then make a directory and mount it.

7. Install the package nfs-common

$ sudo apt-get install nfs-common -y

8. Make a directory named efs

$ sudo mkdir efs

9. Click on Attach button on EFS dashboard

10. Copy the command from Mount with DNS

11. Run the command in the machine.

12. Check the storage on the machine.

$ df -h

Install the packages

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Copy the NFS command from EFS

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Now EFS is mounted on EBS Volume

To detach the EFS Volume use the following command:

$ sudo umount efs