AWS EC2 CLI Commands

1. Launch an EC2 Instance

**aws ec2 run-instances --image-id ami-0abcdef1234567890 --count 1 --instance-type t2.micro --key-name MyKeyPair --security-group-ids sg-123abc456def7890 --subnet-id subnet-1234abcd --tag-specifications 'ResourceType=instance,Tags=[{Key=Name,Value=MyInstance}]' **
--user-data file://user-data-script.txt

Key points:

- Replace placeholders like ami-0abcdef1234567890, sg-123abc456def7890, etc., with your actual resources.
- Use the --user-data flag to pass a startup script.

2. Describe EC2 Instances

aws ec2 describe-instances

- Returns details of all instances in your account, including state, instance type, public IP, etc.

3. Start an EC2 Instance

aws ec2 start-instances --instance-ids i-0abcdef1234567890

Replace i-0abcdef1234567890 with your instance ID.

4. Stop an EC2 Instance

aws ec2 stop-instances --instance-ids i-0abcdef1234567890

5. Terminate an EC2 Instance

aws ec2 terminate-instances --instance-ids i-0abcdef1234567890

Here are commonly used **AWS CLI commands for EC2**:

6. Reboot an EC2 Instance

aws ec2 reboot-instances --instance-ids i-0abcdef1234567890

7.List All Available AMIs\

aws ec2 describe-images --owners self amazon

--owners:

- self: Lists AMIs owned by your account.
- amazon: Lists official Amazon AMIs.

8. Create a Key Pair

aws ec2 create-key-pair --key-name MyKeyPair --query 'KeyMaterial' - --output text > MyKeyPair.pem

Saves the private key material in MyKeyPair.pem.

9. Create a Security Group

aws ec2 create-security-group --group-name MySecurityGroup --description "My security group for EC2"

10. Add Inbound Rule to Security Group

aws ec2 authorize-security-group-ingress --group-id sg-123abc456def7890 --protocol tcp --port 22 --cidr 0.0.0.0/0

Opens **SSH (port 22)** to all IPs (0.0.0.0/0). Modify accordingly for other ports or specific IP ranges.

11. Allocate and Associate an Elastic IP

Allocate an Elastic IP:

aws ec2 allocate-address

Associate Elastic IP to Instance

aws ec2 associate-address --instance-id i-0abcdef1234567890 --allocation-id eipalloc-12345678

12. Create a Volume

aws ec2 create-volume --availability-zone ap-south-1a --size 10 --volume-type gp2

Creates a **10 GiB** volume in the specified AZ.

13. Attach Volume to an Instance

aws ec2 attach-volume --volume-id vol-0abcd1234efgh5678 --instance-id i-0abcdef1234567890 --device /dev/xvdf

14. Modify an Instance (Change Instance Type)

Stop the Instance:

```
aws ec2 stop-instances --instance-ids i-0abcdef1234567890
```

Modify the Instance Type:

```
aws ec2 modify-instance-attribute --instance-id iabcdef1234567890  --
instance-type "{\"Value\": \"t2.medium\"}"
```

Start the Instance:

```
aws ec2 start-instances --instance-ids i-0abcdef1234567890
```

15. Deregister or Delete an AMI

```
aws ec2 deregister-image --image-id ami-0abcdef1234567890
```