**Launch EC2 instance & attach EBS volume using AWS CLI**

# Project Description:

1. Create a key pair
2. Create a security group
3. Launch an instance using the above created key pair and security group
4. Create an EBS volume of 1 GB
5. The final step is to attach the above created EBS volume to the instance you created in the previous steps

# Per-requisites for the practical:

1. AWS CLI should be [installed](https://docs.aws.amazon.com/cli/latest/userguide/install-cliv2-windows.html) in the OS
2. AWS CLI should be [configured](https://docs.aws.amazon.com/cli/latest/userguide/cli-chap-configure.html) in the OS

# Stepwise Implementation:

# Step 1: Create a key pair

* Key name: MyAWSKey

**$ aws ec2 create-key-pair --key-name MyAWSKey**

# STEP 2: Create a security group

* SG name: AWS-aws-allowall
* Description: Allow all traffic for AWSaws security group

$ aws ec2 create-security-group \   
 --group-name AWS-aws-allowall \  
 --description "Allow all traffic for AWS aws security group"

* Authorize the security group with the inbound rule

$ aws ec2 authorize-security-group-ingress \  
 --group-name AWS-aws-allowall \  
 --protocol all \  
 --cidr 0.0.0.0/0

# STEP 3: Launch an instance using the above created key pair and security group

* Image name: Amazon Linux AMI 2
* Instance type: t2.micro
* Count: 1
* Subnet id: subnet-5d191d35
* Tags: Name: AWS-os
* Security group: arth-AWS-allowall
* Key name: MyAWSKey

$ aws ec2 run-instances \  
 --image-id ami-0e306788ff2473ccb \  
 --instance-type t2.micro \  
 --count 1 \  
 --subnet-id subnet-5d191d35 \  
 --tag-specifications 'ResourceType=instance,Tags=[{Key=Name,Value=AWS-os}]' \  
 --security-group-ids sg-001151b8148c34cc5 \  
 --key-name MyAWSKey

# STEP 4: Create an EBS volume of 1 GB

* Size: 1GB
* Availability Zone: ap-south-1a
* Tags: Name: arth-ebs-volume

$ aws ec2 create-volume   
 --availability-zone ap-south-1a   
 --size 1   
 --tag-specifications 'ResourceType=volume,Tags=[{Key=Name,Value=AWS-ebs-volume}]'

# STEP 5: Attach the above created EBS volume to the instance created in the previous steps

* Instance id: i-0e54836c1b7315dc2
* Volume id: vol-01984871a464e0f70
* Device name: /dev/xvdh

$ aws ec2 attach-volume   
 --instance-id i-0e54836c1b7315dc2   
 --volume-id vol-01984871a464e0f70   
 --device /dev/xvdh

Now our EBS volume is successfully attached to the EC2 instance and we can see the two volumes one if default and the other is created by EBS.

# STEP 6: Delete the Setup

Run the following commands to delete the setup

$ aws ec2 detach-volume --instance-id i-0e54836c1b7315dc2 --volume-id vol-01984871a464e0f70  
$ aws ec2 delete-volume --volume-id vol-01984871a464e0f70  
$ aws ec2 terminate-instances --instance-ids i-0e54836c1b7315dc2  
$ aws ec2 delete-security-group --group-name AWS-aws-allowall$ aws ec2 delete-key-pair --key-name MyAWSKey

THANK YOU