

Create Ec2 Machine using CLI

- Create IAM user and add Access key , Administrative Permissions

Summary

ARN: arn:aws:iam::974655543823:user/Sheetal

Created: November 04, 2025, 14:47 (UTC+05:30)

Console access: Enabled without MFA

Last console sign-in: Never

Access key 1: AKIA6F3P7LIHHRG43KEE4 - Active (Used today, Created today)

Access key 2: Create access key

Permissions Policies (3):

Policy name	Type	Attached via
AdministratorAccess	AWS managed - job function	Directly
AmazonEC2FullAccess	AWS managed	Directly
IAMUserChangePassword	AWS managed	Directly

- Configure AWS CLI

```
aws configure
```

AWS Access Key ID
AWS Secret Access Key
Default region name - us-east-1
Default output format - json

- aws sts get-caller-identity

```
{  
    "UserId": "AIDA6F3P7LIHVZAJAW5HU",  
    "Account": "974655543823",  
    "Arn": "arn:aws:iam::974655543823:user/Sheetal"  
}
```

- Attach Permission to IAM user related to EC2
- Script to launch EC2 using CLI

```
#!/bin/bash  
# -----  
# Script: create-ec2-instance.sh  
# Purpose: Launch an EC2 instance with security group & key pair  
# Author: CloudOps Engineer  
# -----
```

```

# ----- Configuration -----
REGION="us-east-1"
INSTANCE_TYPE="t2.micro"
AMI_ID="ami-0c02fb55956c7d316" # Amazon Linux 2 AMI (update for your
region)
KEY_NAME="my-ec2-key"
SECURITY_GROUP_NAME="my-ec2-sg"
TAG_NAME="CloudOps-EC2-Demo"

# ----- Step 1: Create Key Pair -----
echo "Creating key pair: ${KEY_NAME}"
aws ec2 create-key-pair \
--region $REGION \
--key-name $KEY_NAME \
--query 'KeyMaterial' \
--output text > "${KEY_NAME}.pem"

chmod 400 "${KEY_NAME}.pem"
echo "Key pair saved as ${KEY_NAME}.pem"

# ----- Step 2: Create Security Group -----
echo "Creating security group: ${SECURITY_GROUP_NAME}"
SG_ID=$(aws ec2 create-security-group \
--group-name "$SECURITY_GROUP_NAME" \
--description "Security group for EC2 demo" \
--region $REGION \
--query 'GroupId' \
--output text)

echo "Security Group ID: $SG_ID"

# Add inbound rules for SSH (22) and HTTP (80)
aws ec2 authorize-security-group-ingress --group-id "$SG_ID" --protocol tcp --
port 22 --cidr 0.0.0.0/0 --region $REGION
aws ec2 authorize-security-group-ingress --group-id "$SG_ID" --protocol tcp --
port 80 --cidr 0.0.0.0/0 --region $REGION

# ----- Step 3: Launch EC2 Instance -----
echo "Launching EC2 instance..."
INSTANCE_ID=$(aws ec2 run-instances \
--image-id $AMI_ID \
--instance-type $INSTANCE_TYPE \
--key-name $KEY_NAME \
--security-group-ids $SG_ID \

```

```

--region $REGION \
--tag-specifications
"ResourceType=instance,Tags=[{Key=Name,Value=$TAG_NAME}]" \
--query 'Instances[0].InstanceId' \
--output text)

echo "Instance ID: $INSTANCE_ID"

# ----- Step 4: Wait for Instance to be Running -----
echo "Waiting for instance to enter 'running' state..."
aws ec2 wait instance-running --instance-ids $INSTANCE_ID --region $REGION

# ----- Step 5: Retrieve Public IP -----
PUBLIC_IP=$(aws ec2 describe-instances \
--instance-ids $INSTANCE_ID \
--region $REGION \
--query "Reservations[0].Instances[0].PublicIpAddress" \
--output text)

echo "Instance is ready!"
echo "Public IP: ${PUBLIC_IP}"
echo "You can SSH using: ssh -i ${KEY_NAME}.pem ec2-user@${PUBLIC_IP}"

# ----- Step 6: Display Summary -----
echo "-----"
echo "EC2 Instance Summary:"
echo "Region:    $REGION"
echo "Instance Type: $INSTANCE_TYPE"
echo "Instance ID:  $INSTANCE_ID"
echo "Public IP:   $PUBLIC_IP"
echo "Key Pair:   ${KEY_NAME}.pem"
echo "Security Group: $SG_ID"
echo "Tag:        $TAG_NAME"
echo "-----"

```

- EC2 Machine Launched

The screenshot shows the AWS CloudShell interface. At the top, the URL is `us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#Instances:v=3;$case=tags:true%5C,client:false;$regex=tags:false%...`. The AWS logo is in the top-left corner, and the top navigation bar includes links for Gmail, YouTube, Maps, 1 BHK Independent..., and hmsdeviceevents_sa... The top right shows Account ID: 9746-5554-3 and United States (N. Virginia) with a dropdown menu.

The main area is titled "Instances (1) Info". It lists one instance: "CloudOps-EC2-Demo" with Instance ID `i-09160ddedbc589f98`, Instance state `Running`, Instance type `t2.micro`, Status check `Initializing`, and Public IPv4 `ec2-107-21-21-1c`. A "Select an instance" dropdown is open below the table.

At the bottom, there's a "CloudShell" terminal window titled "us-east-1". It displays the following output:

```

Instance ID: i-09160ddedbc589f98
Waiting for instance to enter 'running' state...
Instance is ready!
Public IP: 107.21.135.117
You can SSH using: ssh -i my-ec2-key.pem ec2-user@107.21.135.117

EC2 Instance Summary:
Region: us-east-1
Instance Type: t2.micro
Instance ID: i-09160ddedbc589f98
Public IP: 107.21.135.117
Key Pair: my-ec2-key.pem
Security Group: sg-063974adfb2b43
Tag: CloudOps-EC2-Demo

```

The terminal prompt shows "myscripts #".