1. Create a security group that allows ssh access

**Before** 

**Between** 

After

2. Create a key-pair that is used for ssh access

**Before** 

**Between** 

**After** 

3. Create two AMI instances in the us-west-1 region

**Before** 

Between

After

- 4. After both instances are launched
- 5. Next, Programmatically terminate both instances

Between

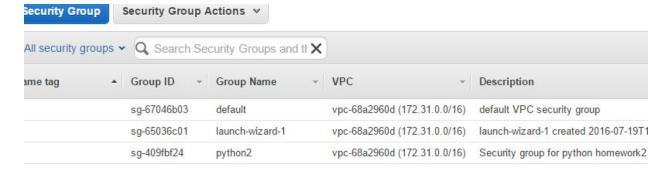
After

# AWS CLI Assignment 03

Using the (new) AWS Command Line Tools - write a bash shell script that make calls to the AWS CLI to do the following:

### 1. Create a security group that allows ssh access

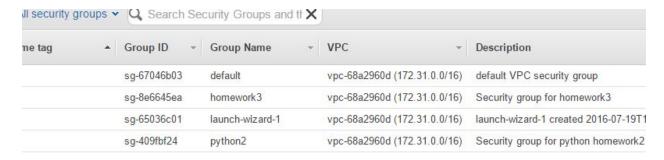
### **Before**



### Between

```
siming.meng@USA80S147305L ~/.aws
$ aws ec2 create-security-group --group-name homework3 --description "Security group for homework3"
sg-8e6645ea
siming.meng@USA80S147305L ~/.aws
$ aws ec2 authorize-security-group-ingress --group-name homework3 --protocol tcp --port 22 --cidr 0
siming.meng@USA80S147305L ~/.aws
$ |
```

### After



# 2. Create a key-pair that is used for ssh access

(we will not actually use this key pair in this assignment) - and download it

### **Before**

```
siming.meng@USABOS147305L ~/.aws
$ pwd
/home/siming.meng/.aws
siming.meng@USABOS147305L ~/.aws
$ ls -xap
./ ../ ami.txt config credentials key-west1.pem mynewkey1.pem mynewkey2.pem
siming.meng@USABOS147305L ~/.aws
$ |
```

#### Between

```
siming.meng@USABOS147305L ~/.aws
$ aws ec2 create-key-pair --key-name mynewkey3 > hw3.pem
siming.meng@USABOS147305L ~/.aws
$ ls -xaxp
./ ../ ami.txt config credentials hw3.pem key-west1.pem mynewkey1.pem mynewkey2.pem
siming.meng@USABOS147305L ~/.aws
$ |
```

#### **After**

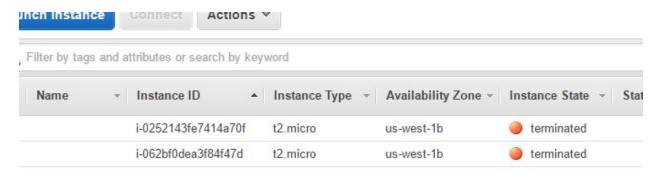
```
$\text{lss} -xaxp
./ ../ ami.txt config credentials hw3.pem key-west1.pem mynewkey1.pem myne
\text{siming.meng@USABOS147305L ~/.aws}

\text{smore hw3.pem}
68:63:e1:f9:c0:49:af:3c:1f:85:21:10:ab:77:26:24:ea:9f:a1:84 ----BEGIN RSA PRI
MIIEowIBAAKCAQEAmLdIMgmRIigTrBD7GtQBCWmy4XoYTHR5jaaZYy7555AqhbhTgweGwb+mOqmw
GabczBR268APJCQ50pn5LD+RnH3f+02ZV1/UD6wUy12UTy/3x6Z7ITAreX8Wxis3mU+r8my+g1Hm
/0C5oPgt9jGH1ArWra7pPWqeTiK50H0YKN+g9C/xP7xjLJMjLQrf09V1Th6oLB/z/vFAz4bdJLWM
KSKhUjVy3QCrHb7zcoQ/PWxQKyxfvXcrmRDK8oVR9+UKTGjeQleraigy211QAK4ER5BSizfLJfNJ
in/C1/1GWPZnu6bHnbTeLWfGCD06qqpELeu1zZDT0UMC73IMzeuclcQIDAQABAAIBAFvAxaH1i5Q4
/fDAVw28WE8eeUHtCFJPHITV10y3uZ+9x26GC27LA95+X+1r1Ajlbv0SQL9gqfgt56u3pLRIESUz
in3GuIrYTNiagxfH9bFDTYgxK4umCrmwnx1ITvxjWfFlvqIrdx2qQqbijw4GKKrBkPq01TK8AstIB
HMVk9gN/waQYoZ1kel1pQAJWyaq4FXq0iT+hsX7IS7F2/WogHK7aT0Dmxm2SXaylW/uhfctUfjs0
We1rMURZTPg2KE7Id+GEc5Uf5AGECuhzW/OubrNcyuVy56jj1CzjQ384GNvAgJ7Hr0D7kvhDlYvt
h6CzIdmij14Yt1SNg606o2Ey1esEcgyF822coa0NIUSrY/CiD1nB7whTocf8HddeXadcpnBGMTyVi
JAX29VXx8uVeoSgfeChBdWYcLcd/XnqyFvyHBGziRCb3uFB+M+3+VY+E8HCj02uEFShnLyIP7p7C
rQ8i67ZZZxMCSucgEOMj3HLnK0eVueJ4s8K0Ky7df6af1hImyGkCgYEAsjDGLY7SsjTiXlX7Dh2n
xbrQeCpwelB3MFYHOC+5w26F0v5G4bpPk+2j6h0kBbha+cVoWRO/8eTYwSmMXXWGSKeYLTTVPWhc
AH0eyFoLMD/HaYy6t8hCRZtCIafntXwHKi1zAyj6wHw9HG3a0v0M1QRYwGGmzQKZtQRT9fp0E8kC
gY4+jZJZ2JP8uEenFPIJqIZQX1+q8h0RZwc/YN33JjWntxPVC3J0n1NeGjExplvZiTiofRVZpABX
con17dec1mJoZef1wAJLUfZqdIHFf4e6gDvnQF6y3HZIZTFB29NY0UQugdBX6Pw0XELoqHTh0vBo/
JiedsMGR5Ema3aHCieh0yQKBgAhvIpI5dmOU+Tn52945LR3Az+1AKP6ta36UM9dG+wXZDz9R1c1N
YkLgNqf3sgXLShMUc4hIeCRc7p2F9/KKk4aQ0iY/6u/zJpenVH0rP2hTPH8UeCoGwoxE4wZwyhje
+//U4mq939CIkOPtlyy/JmvWxVSlyp1diCT3RXoZFrFxAoGBAJJ5xhMkk8p8FPBYC7L1qEpU5ggu
T+PvfD1swDnNTbR1q1qPUryAPdQHgwUCC20hJJKFPvVLziBrpTLU5rVVECsJcC9eJkUTqsqg3U8T
wFHg5p8/BZLx1iEmo65RRmcXgT8YMU++6pBIZs7/C8R1+xpCf0HtbXowWRdM1iRTeHnr
-----END RSA PRIVATE KEY----- mynewkey3
```

## 3. Create two AMI instances in the us-west-1 region

aws ec2 run-instances --image-id ami-31490d51 --count 2 --instance-type t2.micro --security-groups homework3

### **Before**



### Between

```
siming.meng@USA80S147305L ~/.aws
$ aws ec2 run-instances --image-id ami-31490d51 --count 2 --instance-type t2.micro --security-groups homework3
413365813430 r-0a984a3f19e255e5e
INSTANCES 0 x86_64 False xen ami-31490d51 i-00538f569ceb11656 t2.micro
-09-18T18:41:46.000Z ip-172-31-2-192.us-west-1.compute.internal 172.31.2.192 /dev/xvda
rue subnet-bf0836e6 hvm vpc-68a2960d
MONITORING disabled

MONITORING disabled

O6.9d.55.10:e0.30
NETWORKINTERFACES 06:9d:55:10:e9:a0 eni-95ac3a9a 41336
mpute.internal 172.31.2.192 True in-use subnet-bf0836e6 vpc-68a2960d
ATTACHMENT 2016-09-18T18:41:46.000Z eni-attach-81c2ff23 True
                                                                                                                                          413365813430
                                                                                                                                                                         ip-172-31-2-192.us-west
                                                                                                                                                                          attaching
                                            homework3
True ip-172-31-2-192.us-west-1.compute.internal
-1a default
ATTALMMENT 2010-09
GROUPS sg-8e6645ea
PRIVATEIPADDRESSES
PLACEMENT us-west
SECURITYGROUPS sg-8e66
                                                                                                                                                          172.31.2.192
                              us-west-1a
                             sg-8e6645ea
pending
                                                             homework3
STATE 0
STATEREASON
INSTANCES
                             pending pending

1 x86_64 False xen ami-31490d51

.000Z ip-172-31-2-191.us-west-1.compute.internal subnet-bf0836e6 hvm vpc-68a2960d disabled
                                                                                                                                           i-0dc445dc4acb1c9b3
172.31.2.191
                                                                                                                                                                                         t2.micro
 09-18T18:41:46.000Z
                                                                                                                                                                                         /dev/xvda
 rue
MONITORING
413365813430
                                                                                                                                                                          ip-172-31-2-191.us-west
mpute.internal 172.;
ATTACHMENT 2016
GROUPS sg-8e6645ea
PRIVATEIPADDRESSES
                                                                                                                                                                          attaching
                                                             ip-172-31-2-191.us-west-1.compute.internal
default
homework3
                                             True
                                                                                                                                                          172.31.2.191
                             us-west-1a
sg-8e6645ea
pending
pending pending
 PLACEMENT
SECURITYGROUPS
STATE 0
STATE 0
STATEREASON
 iming.meng@USABOS147305L ~/.aws
```

### After



### 4. After both instances are launched

print out information about these two running instances:

```
aws ec2 describe-instances --filter Name="instance.group-name", Values="homework3" --output
json
        "Reservations": [
        "OwnerId": "413365813430",
        "ReservationId": "r-0a984a3f19e255e5e",
        "Groups": [],
        "Instances": [
        {
                "Monitoring": {
                "State": "disabled"
                "PublicDnsName": "ec2-54-153-76-110.us-west-1.compute.amazonaws.com",
                "State": {
                "Code": 16,
                "Name": "running"
                "EbsOptimized": false,
                "LaunchTime": "2016-09-18T18:41:46.000Z",
                "PublicIpAddress": "54.153.76.110",
                "PrivateIpAddress": "172.31.2.192",
                "ProductCodes": [],
                "VpcId": "vpc-68a2960d",
                "StateTransitionReason": "",
                "InstanceId": "i-00538f569ceb11656",
```

```
"ImageId": "ami-31490d51",
"PrivateDnsName": "ip-172-31-2-192.us-west-1.compute.internal",
"SecurityGroups": [
"GroupName": "homework3",
"GroupId": "sg-8e6645ea"
],
"ClientToken": "",
"SubnetId": "subnet-bf0836e6",
"InstanceType": "t2.micro",
"NetworkInterfaces": [
"Status": "in-use",
"MacAddress": "06:9d:55:10:e9:a0",
"SourceDestCheck": true,
"VpcId": "vpc-68a2960d",
"Description": "",
"Association": {
"PublicIp": "54.153.76.110",
"PublicDnsName": "ec2-54-153-76-110.us-west-1.compute.amazonaws.com",
"IpOwnerId": "amazon"
},
"NetworkInterfaceId": "eni-95ac3a9a",
"PrivateIpAddresses": [
        "PrivateDnsName": "ip-172-31-2-192.us-west-1.compute.internal",
        "Association": {
        "PublicIp": "54.153.76.110",
        "PublicDnsName": "ec2-54-153-76-110.us-west-1.compute.amazonaws.com",
        "IpOwnerId": "amazon"
        },
        "Primary": true,
        "PrivateIpAddress": "172.31.2.192"
"PrivateDnsName": "ip-172-31-2-192.us-west-1.compute.internal",
"Attachment": {
"Status": "attached",
"DeviceIndex": 0,
"DeleteOnTermination": true,
"AttachmentId": "eni-attach-81c2ff23",
"AttachTime": "2016-09-18T18:41:46.000Z"
"Groups": [
        "GroupName": "homework3",
        "GroupId": "sg-8e6645ea"
```

```
"SubnetId": "subnet-bf0836e6",
        "OwnerId": "413365813430",
        "PrivateIpAddress": "172.31.2.192"
        ],
        "SourceDestCheck": true,
        "Placement": {
        "Tenancy": "default",
        "GroupName": "",
        "AvailabilityZone": "us-west-1a"
        },
        "Hypervisor": "xen",
        "BlockDeviceMappings": [
        "DeviceName": "/dev/xvda",
        "Ebs": {
        "Status": "attached",
        "DeleteOnTermination": true,
        "VolumeId": "vol-099553449e52b441a",
        "AttachTime": "2016-09-18T18:41:47.000Z"
        "Architecture": "x86 64",
        "RootDeviceType": "ebs",
        "RootDeviceName": "/dev/xvda",
        "VirtualizationType": "hvm",
        "AmiLaunchIndex": 0
},
        "Monitoring": {
        "State": "disabled"
        "PublicDnsName": "ec2-54-67-6-12.us-west-1.compute.amazonaws.com",
        "State": {
        "Code": 16,
        "Name": "running"
        "EbsOptimized": false,
        "LaunchTime": "2016-09-18T18:41:46.000Z",
        "PublicIpAddress": "54.67.6.12",
        "PrivateIpAddress": "172.31.2.191",
        "ProductCodes": [],
        "VpcId": "vpc-68a2960d",
        "StateTransitionReason": "",
        "InstanceId": "i-0dc445dc4acb1c9b3",
```

```
"ImageId": "ami-31490d51",
"PrivateDnsName": "ip-172-31-2-191.us-west-1.compute.internal",
"SecurityGroups": [
"GroupName": "homework3",
"GroupId": "sg-8e6645ea"
],
"ClientToken": "",
"SubnetId": "subnet-bf0836e6",
"InstanceType": "t2.micro",
"NetworkInterfaces": [
"Status": "in-use",
"MacAddress": "06:f5:f7:6a:e8:d4",
"SourceDestCheck": true,
"VpcId": "vpc-68a2960d",
"Description": "",
"Association": {
"PublicIp": "54.67.6.12",
"PublicDnsName": "ec2-54-67-6-12.us-west-1.compute.amazonaws.com",
"IpOwnerId": "amazon"
},
"NetworkInterfaceId": "eni-94ac3a9b",
"PrivateIpAddresses": [
        "PrivateDnsName": "ip-172-31-2-191.us-west-1.compute.internal",
        "Association": {
        "PublicIp": "54.67.6.12",
        "PublicDnsName": "ec2-54-67-6-12.us-west-1.compute.amazonaws.com",
        "IpOwnerId": "amazon"
        },
        "Primary": true,
        "PrivateIpAddress": "172.31.2.191"
"PrivateDnsName": "ip-172-31-2-191.us-west-1.compute.internal",
"Attachment": {
"Status": "attached",
"DeviceIndex": 0,
"DeleteOnTermination": true,
"AttachmentId": "eni-attach-86c2ff24",
"AttachTime": "2016-09-18T18:41:46.000Z"
"Groups": [
        "GroupName": "homework3",
        "GroupId": "sg-8e6645ea"
```

```
"SubnetId": "subnet-bf0836e6",
"OwnerId": "413365813430",
"PrivateIpAddress": "172.31.2.191"
],
"SourceDestCheck": true,
"Placement": {
"Tenancy": "default",
"GroupName": "",
"AvailabilityZone": "us-west-1a"
},
"Hypervisor": "xen",
"BlockDeviceMappings": [
"DeviceName": "/dev/xvda",
"Ebs": {
"Status": "attached",
"DeleteOnTermination": true,
"VolumeId": "vol-0b5d8526e4f8fbbb8",
"AttachTime": "2016-09-18T18:41:47.000Z"
"Architecture": "x86_64",
"RootDeviceType": "ebs",
"RootDeviceName": "/dev/xvda",
"VirtualizationType": "hvm",
"AmiLaunchIndex": 1
```

## 5. Next, Programmatically terminate both instances

#### Between

```
S ls ami.txt config credentials hw3.pem key-west1.pem mynewkey1.pem mynewkey2.pem siming.meng@USABOS147305L ~/.aws saws ec2 describe-instances --filter Name="instance.group-name",Values="homework3" --output text | awk -F"\t" '$1= $8}' > termination.sh siming.meng@USABOS147305L ~/.aws shutting-down remination.sh remnination.sh remninat
```

#### After

