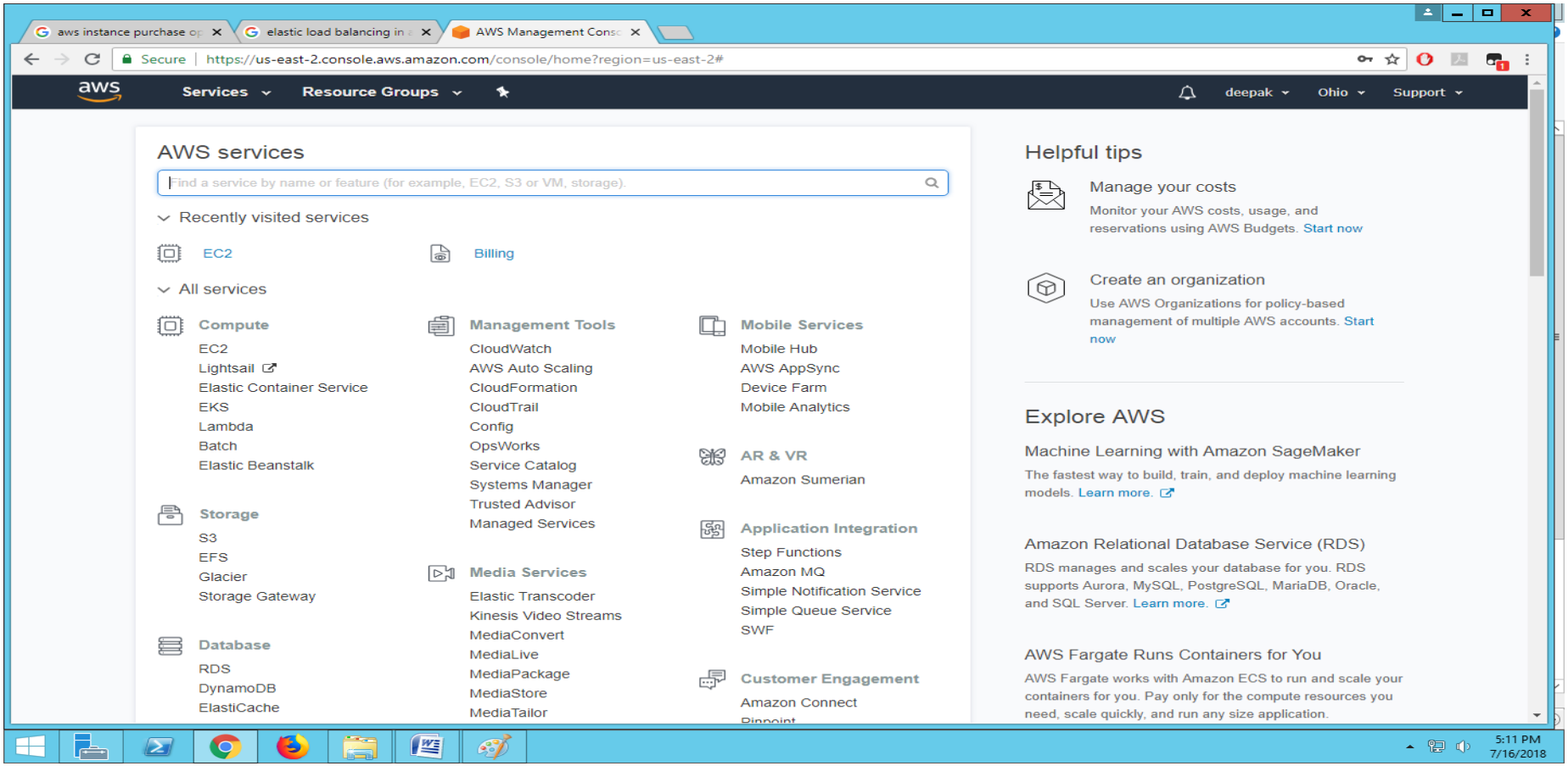
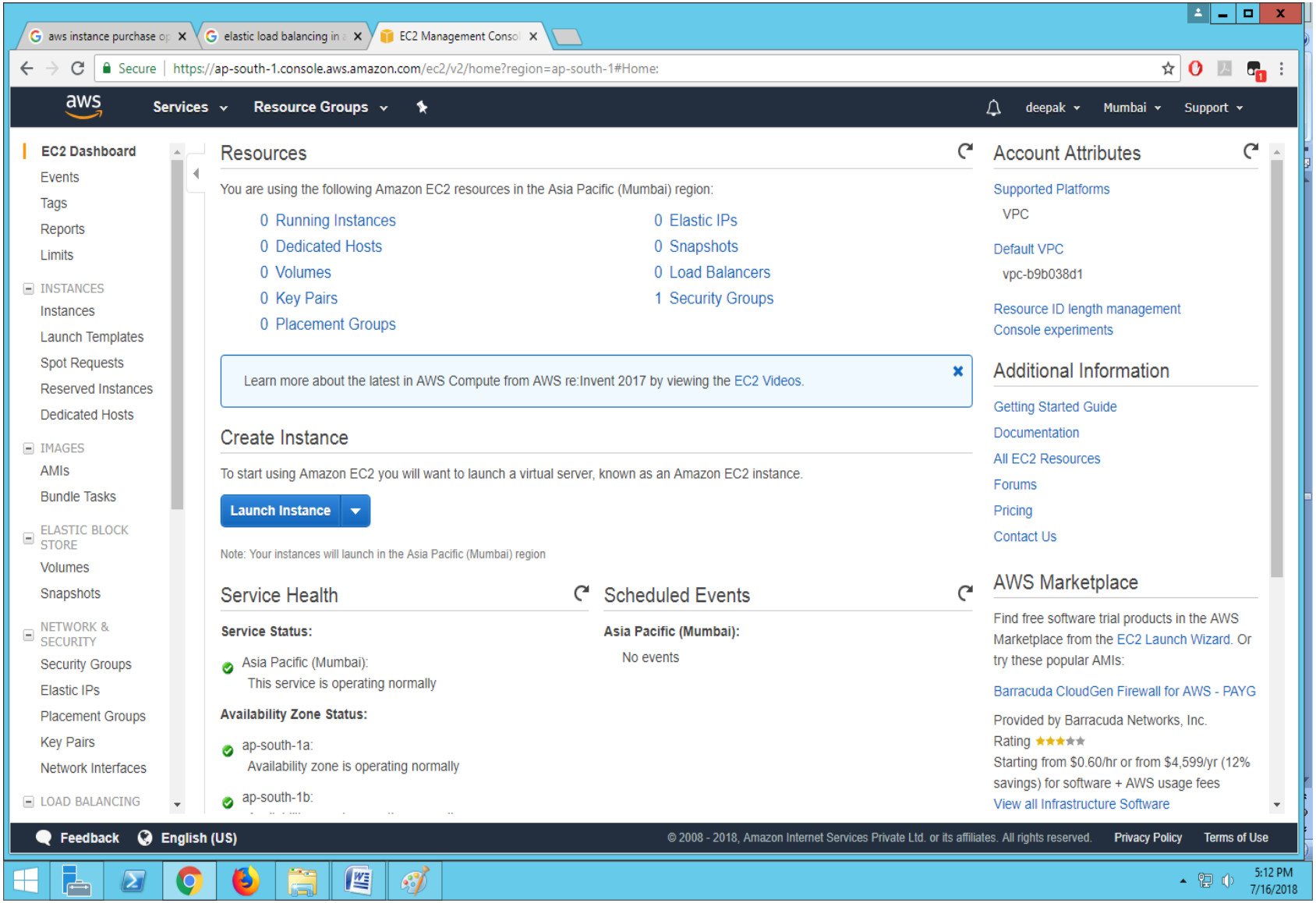
How to Launch EC2 Instance in AWS

Creating Instance in AWS

Log on to AWS open EC2 Select the region and click on launch instances




aws instance purchase o
elastic load balancing in
EC2 Management Conso
Secure
https://ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#Home:
aws
Services
Resource Groups
deepak
Mumbai
Support
EC2 Dashboard
Events
Tags
Reports
Limits
INSTANCES
Instances
Launch Templates
Spot Requests
Reserved Instances
Dedicated Hosts
IMAGES
AMIs
Bundle Tasks
ELASTIC BLOCK STORE
Volumes
Snapshots
NETWORK & SECURITY
Security Groups
Elastic IPs
Placement Groups
Key Pairs
Network Interfaces
LOAD BALANCING
Resources
You are using the following Amazon EC2 resources in the Asia Pacific (Mumbai) region:
0 Running Instances
0 Dedicated Hosts
0 Volumes
0 Key Pairs
0 Placement Groups
0 Elastic IPs
0 Snapshots
0 Load Balancers
1 Security Groups
Learn more about the latest in AWS Compute from AWS re:Invent 2017 by viewing the EC2 Videos.
Create Instance
To start using Amazon EC2 you will want to launch a virtual server, known as an Amazon EC2 instance.
Launch Instance
Note: Your instances will launch in the Asia Pacific (Mumbai) region
Service Health
Service Status:
Asia Pacific (Mumbai):
This service is operating normally
Availability Zone Status:
ap-south-1a:
Availability zone is operating normally
ap-south-1b:
Scheduled Events
Asia Pacific (Mumbai):
No events
Account Attributes
Supported Platforms
VPC
Default VPC
vpc-b9b038d1
Resource ID length management
Console experiments
Additional Information
Getting Started Guide
Documentation
All EC2 Resources
Forums
Pricing
Contact Us
AWS Marketplace
Find free software trial products in the AWS Marketplace from the EC2 Launch Wizard. Or try these popular AMIs:
Barracuda CloudGen Firewall for AWS - PAYG
Provided by Barracuda Networks, Inc.
Rating
Starting from $0.60/hr or from $4,599/yr (12% savings) for software + AWS usage fees
View all Infrastructure Software
Feedback
English (US)
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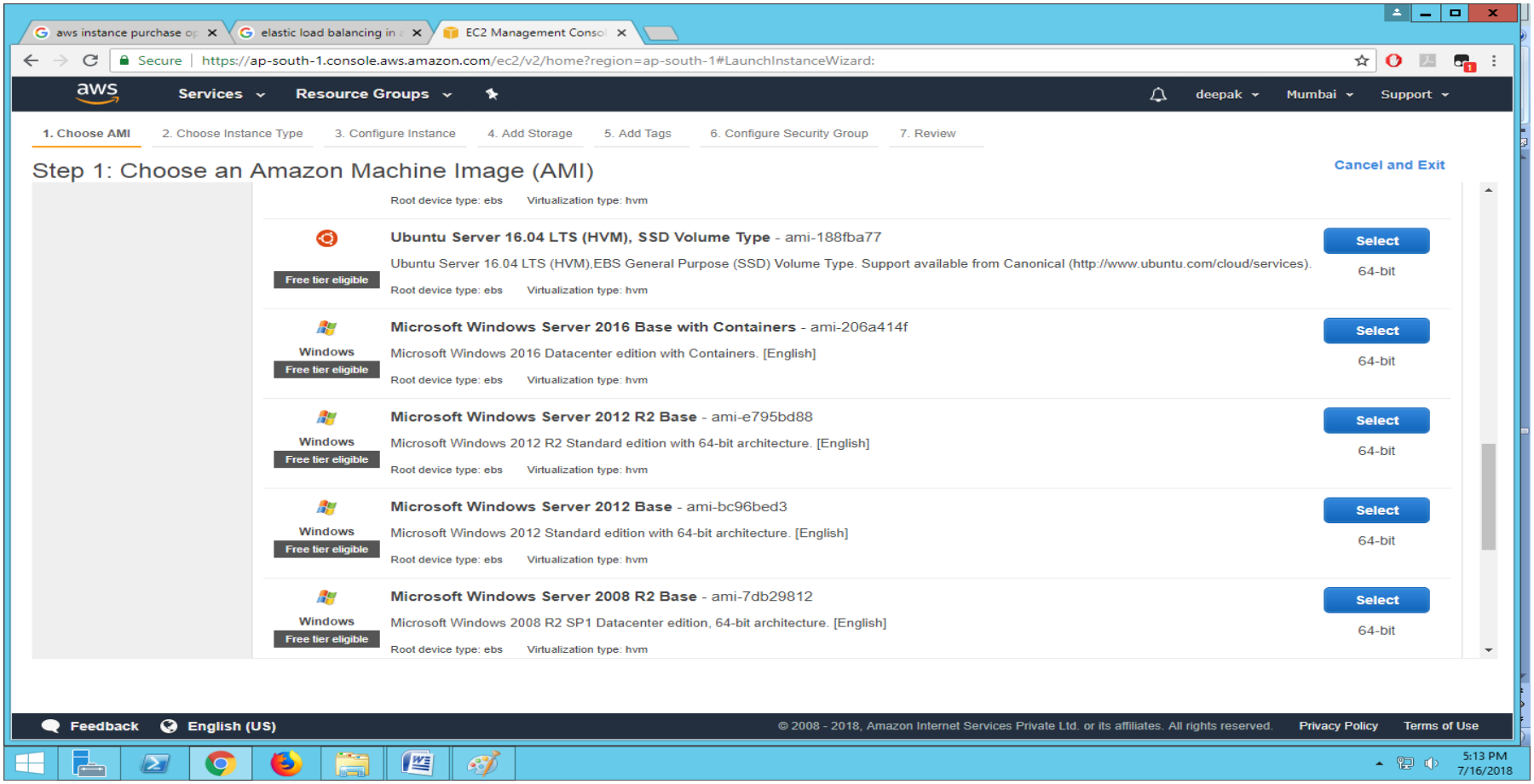
Privacy Policy
Terms of Use
5:12 PM
7/16/2018

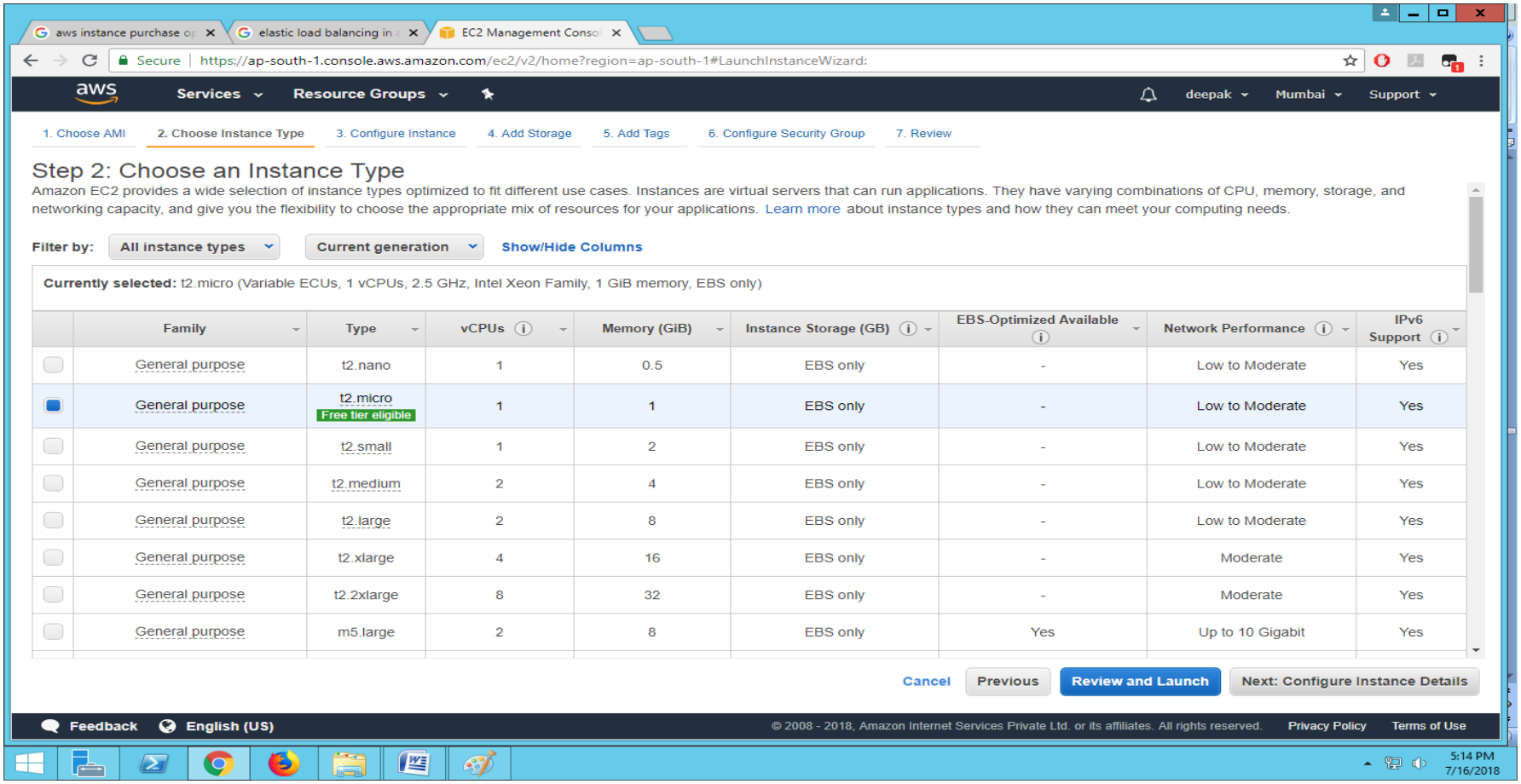
Creating Instance in AWS

Selecting the requires Amazon Image (OS) -select Ubuntu or windows server 2012 base (Free tier)



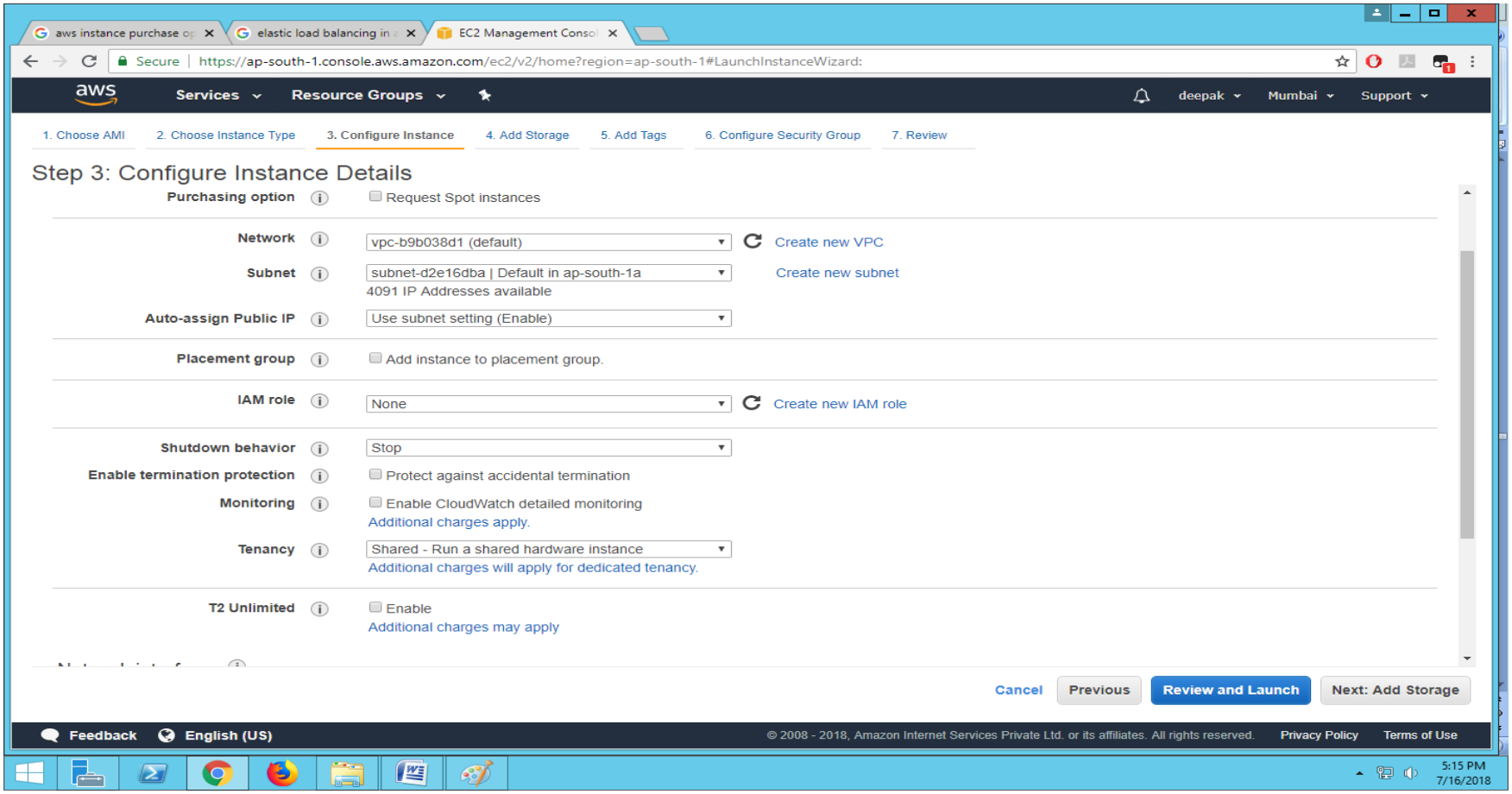
Creating Instance in AWS

Select t2.micro instance type to use free service



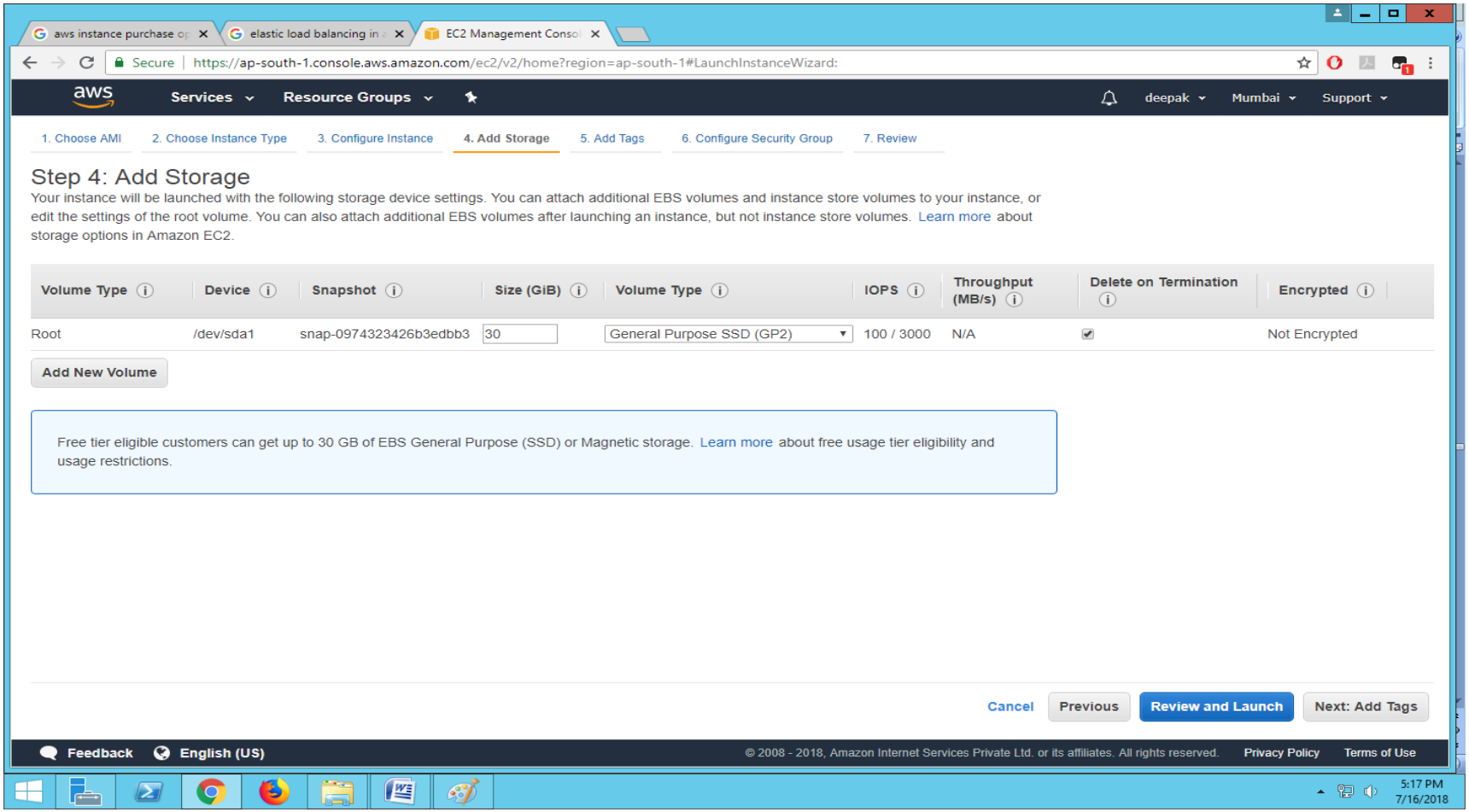
Creating Instance in AWS

Select the required options , specially subnet-set ap-south-1b



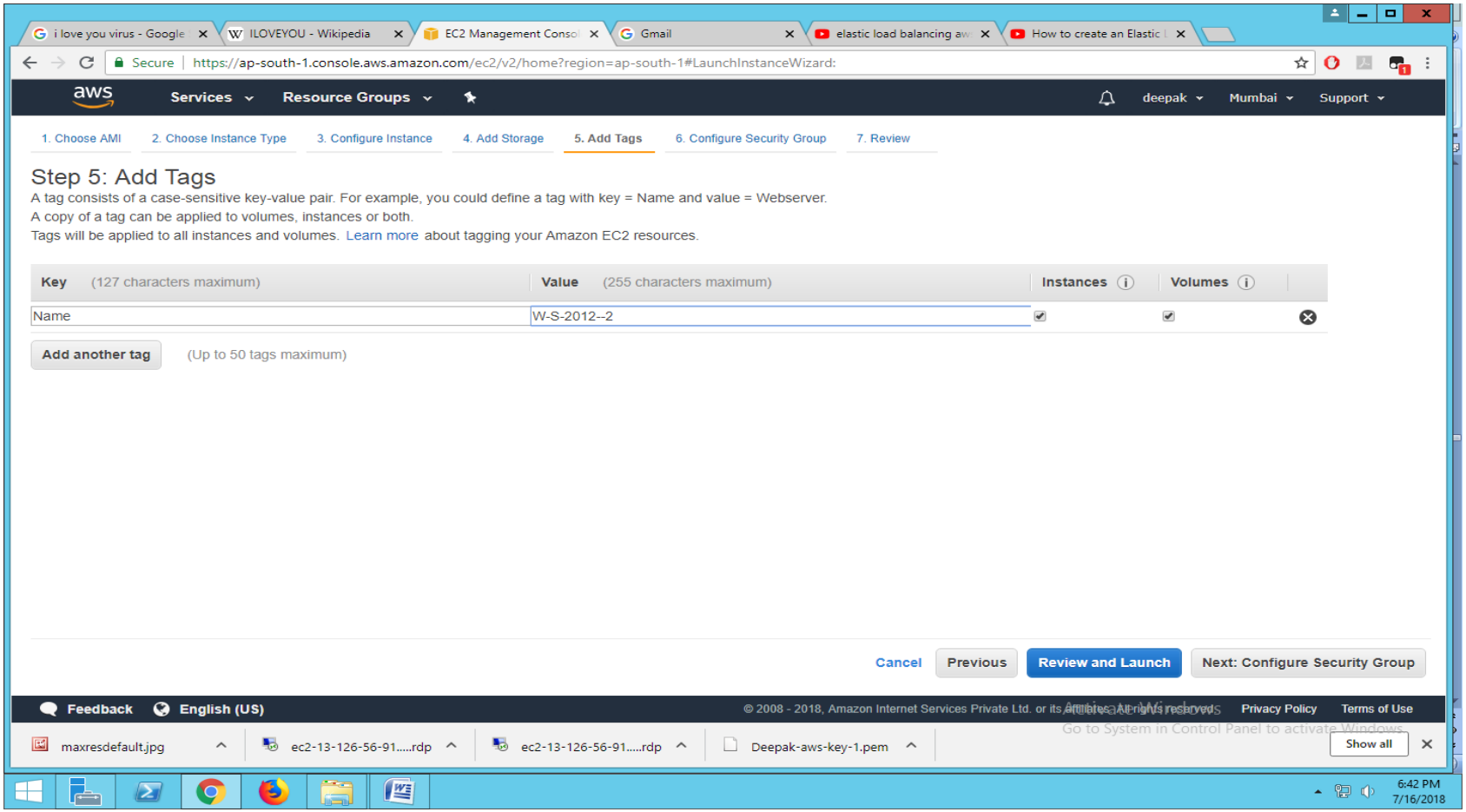
Creating Instance in AWS

Add disk if required otherwise go for next



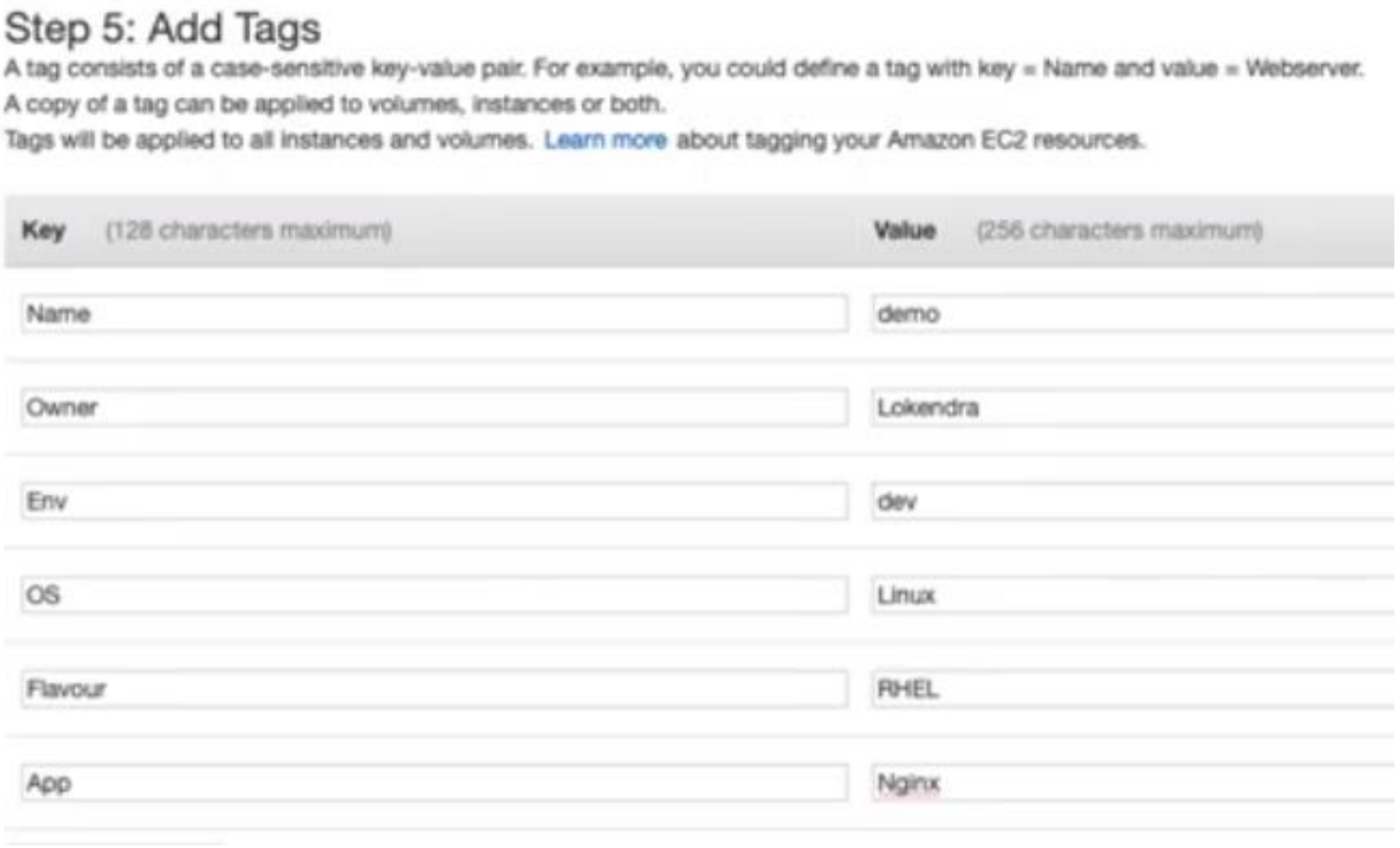
Creating Instance in AWS

Click on add tags and type : Key = Name , Value = Windows server 2012 or Ubuntu



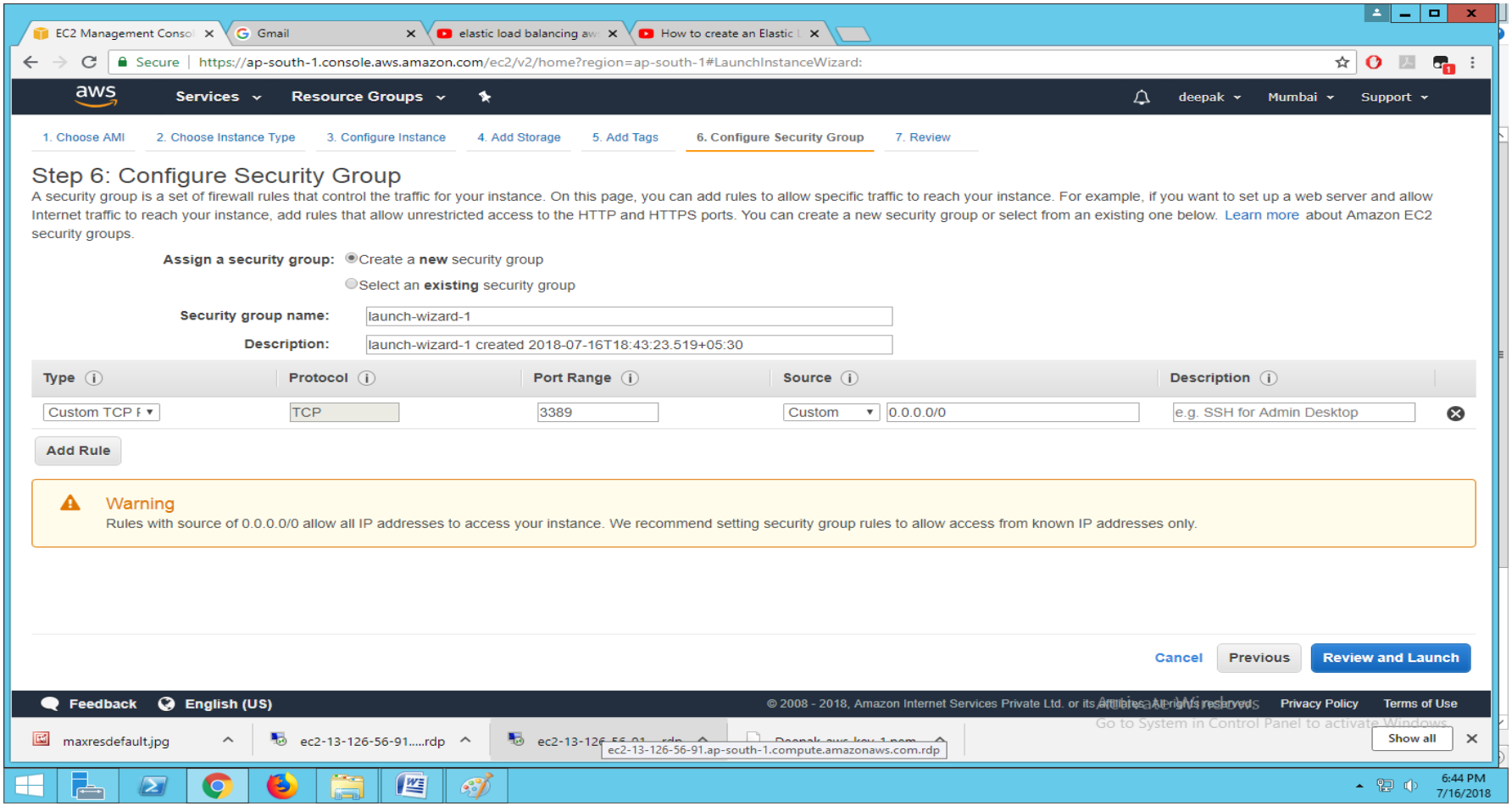
Tagging

Tagging is important to estimate the pricing for each resource used



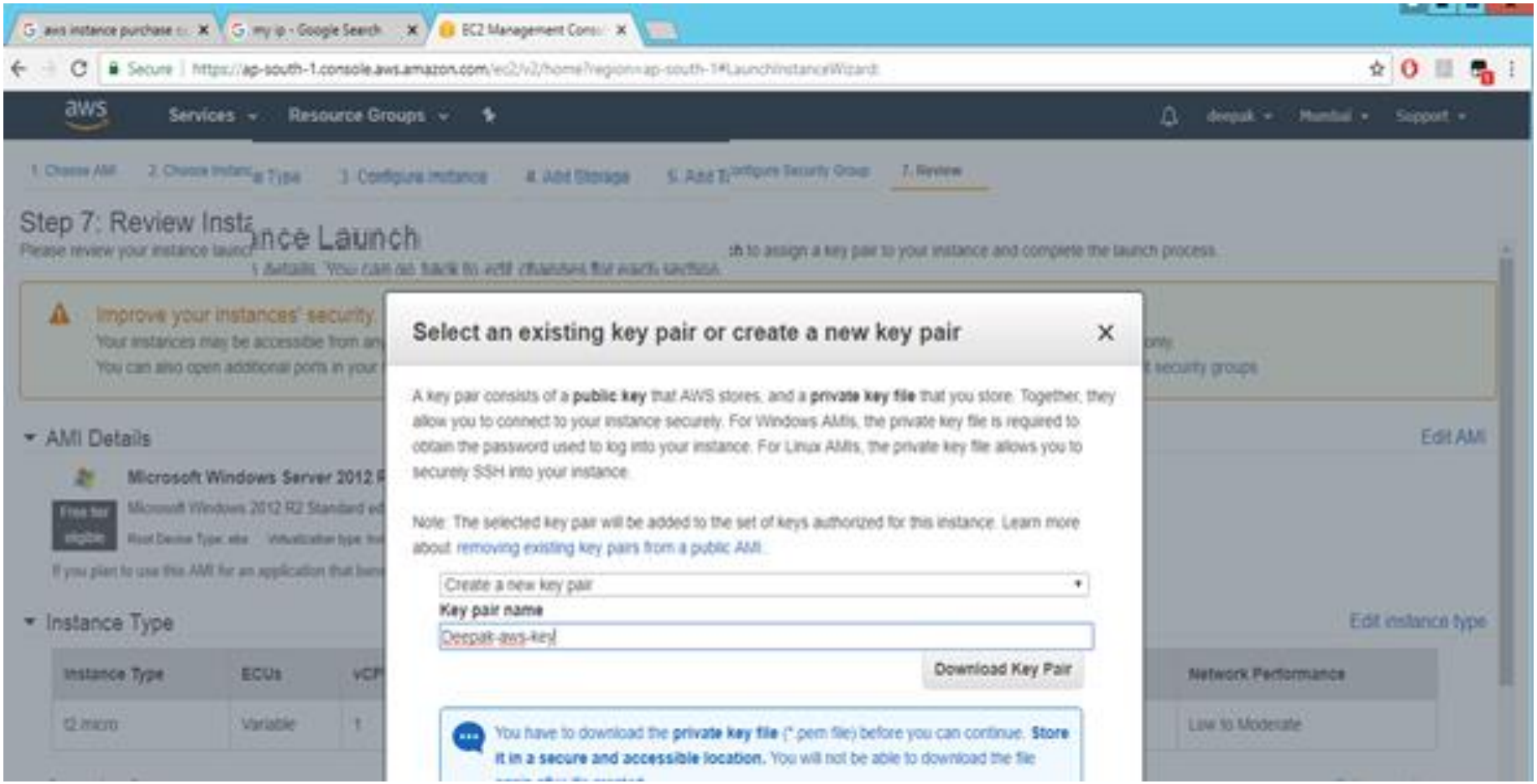
Creating Instance in AWS

- Creating New security group –select RDP and HTTP for Windows and SSH RDP for Linux Instance. In case of not knowing select All traffic and source anywhere ----Review and Launch



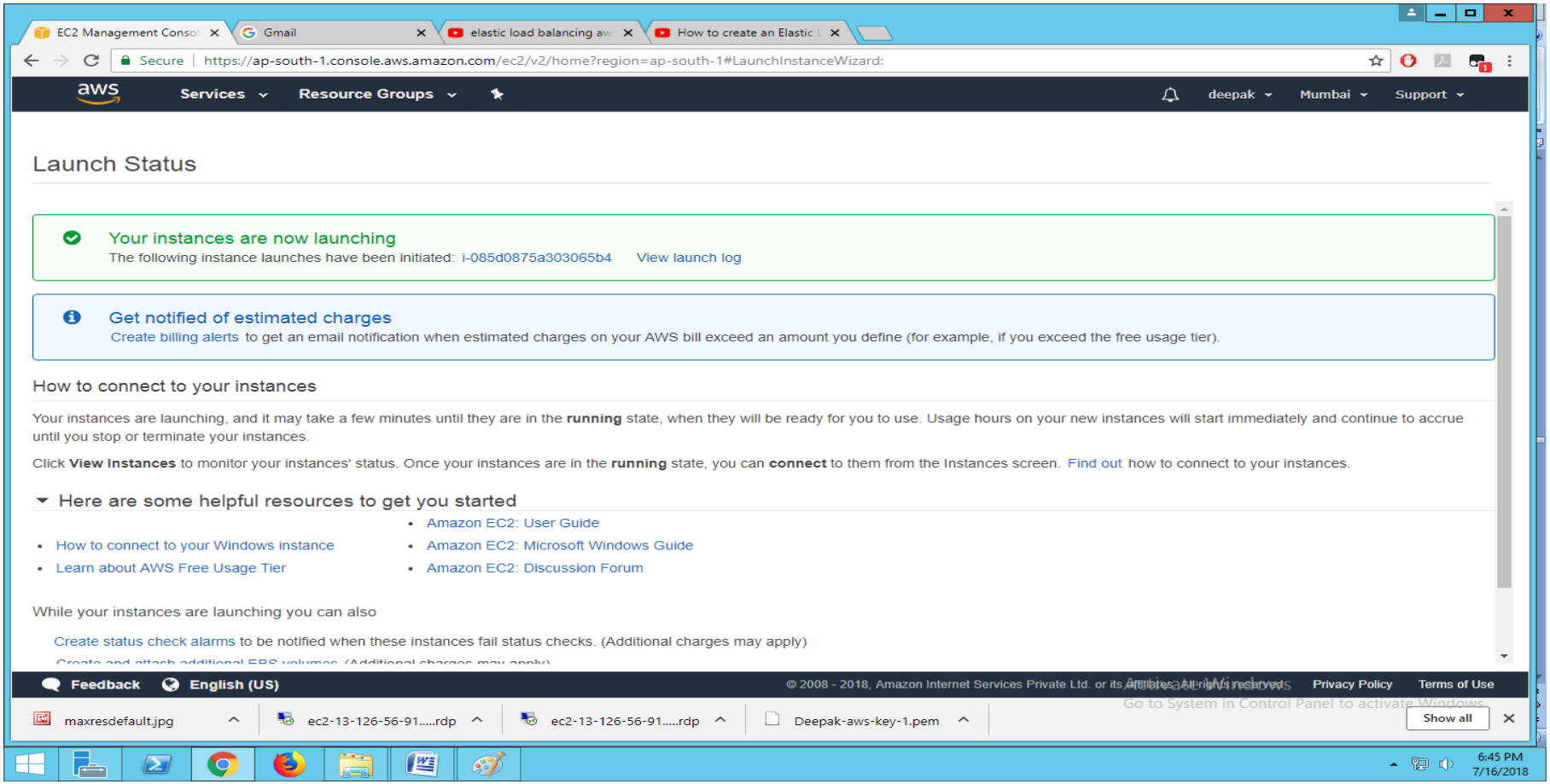
Creating Instance in AWS

Create a new key pair – name: awskey –Download key pair



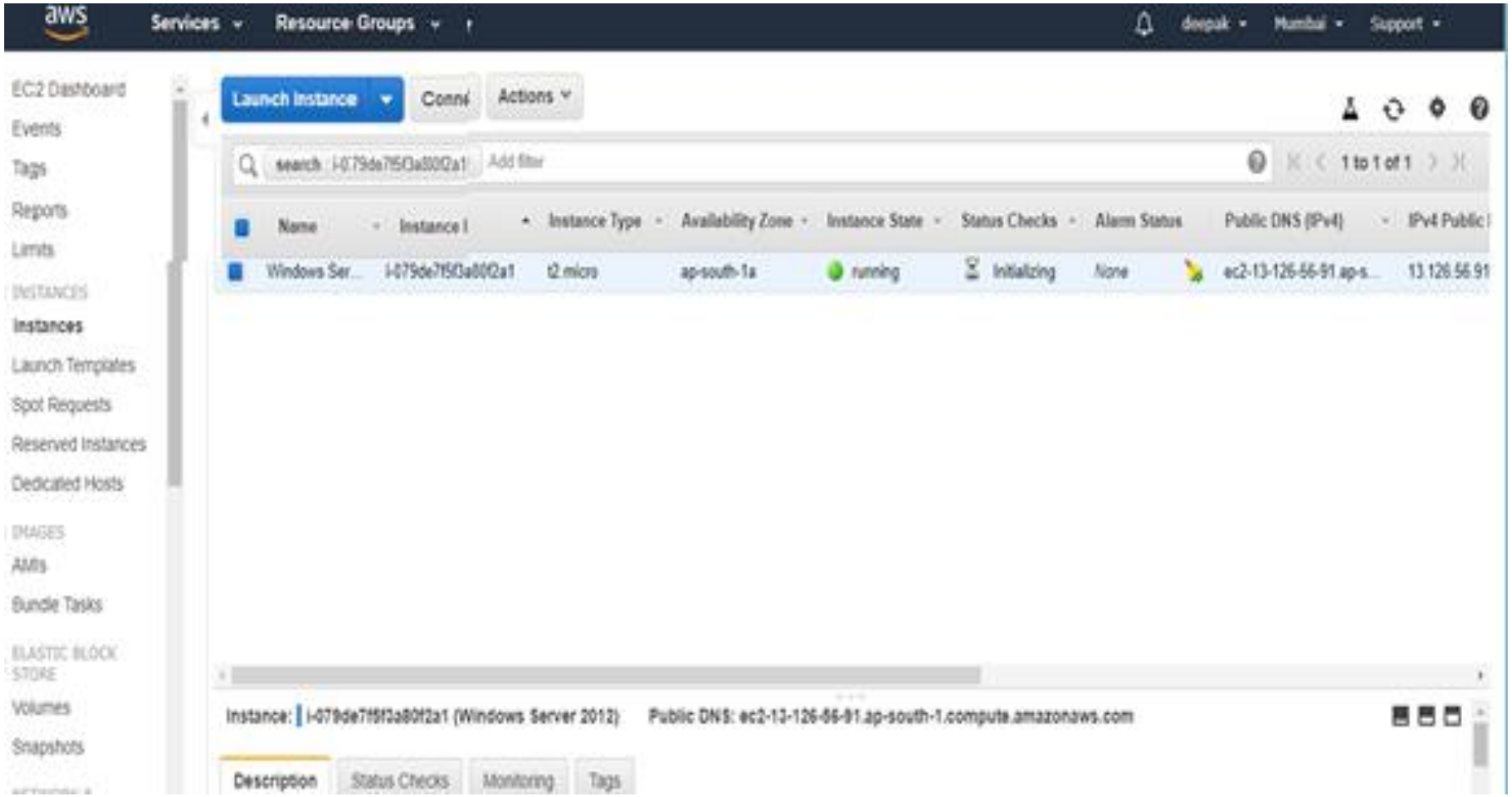
Creating Instance in AWS

Click on launch instance –then scroll down and click on view instance



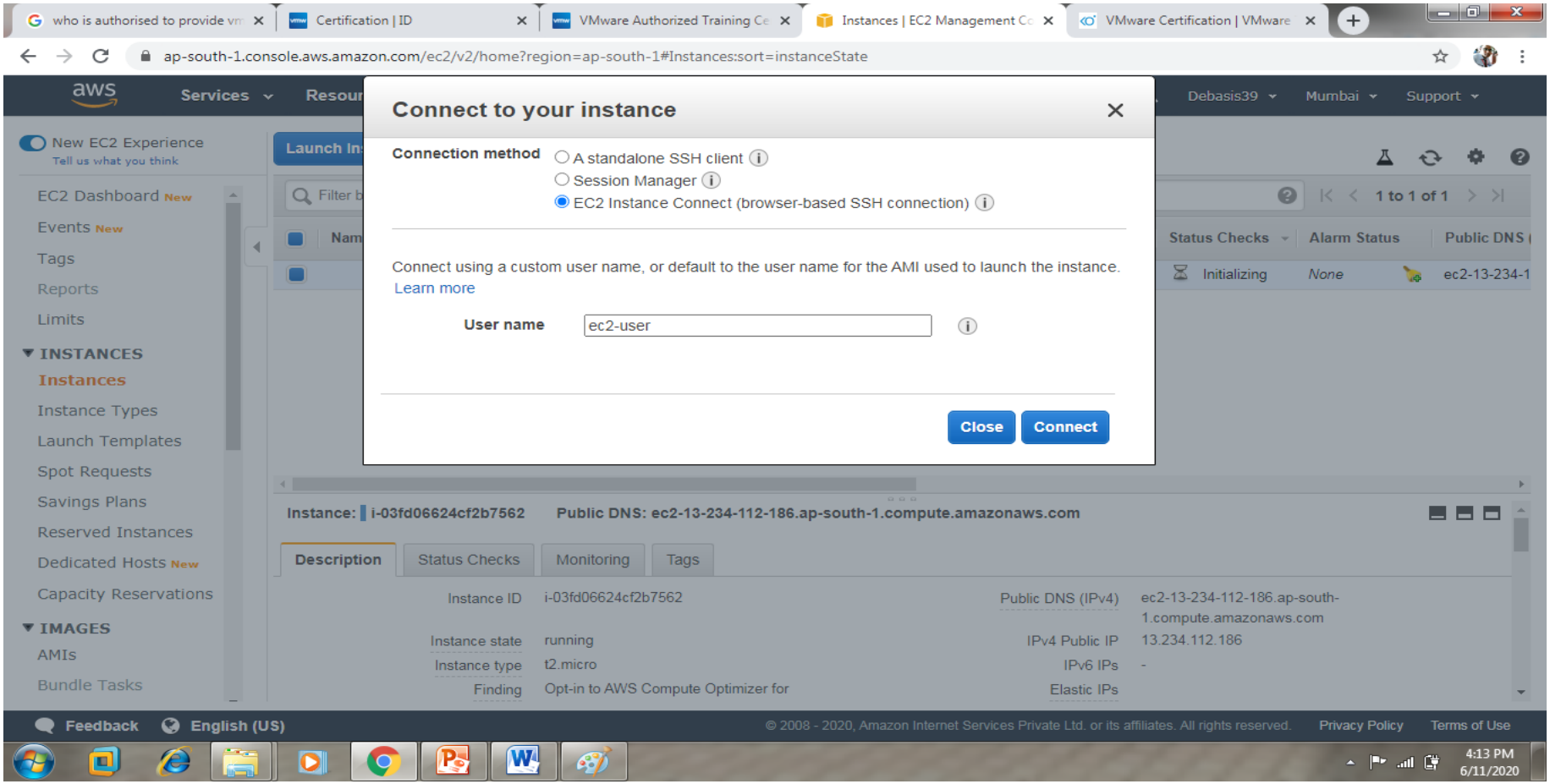
Creating Instance in AWS

- Now instance is created and running. click on connect



Creating Instance in AWS

Select connection method EC2 instance connect ----connect



Tools to access AWS linux instance

From Linux terminal/Mac OS --

chmod u+x aws.pem

ssh -i awskey.pem ec2-user@InstancepublicIP

Or

ssh -i awskey.pem ec2-user@InstancepublicIP

From Windows System use software

0) EC2 cloud shell

1) Putty

2) Gitbash

3) Mobaextrem

Default user name:

1) RHEL – ec2-user

2) Ubuntu: ubuntu

3) Windows : Administrator

IIS in Windows Server

- Stands for "Internet Information Services." IIS is a web server software package designed for Windows Server. It is used for hosting websites and other content on the Web.

- Microsoft’s Internet Information Services provides a graphical user interface (GUI) for managing websites and the associated users. It provides a visual means of creating, configuring, and publishing sites on the web. The IIS Manager tool allows web administrators to modify website options, such as default pages, error pages, logging settings, security settings, and performance optimizations

IIS Web server in Windows

1) Launching Windows Instance

2) Copy public IP and access the Instance through Remote Desktop connection

3) Open Server manager – Add Roles and Feature –select and Install Web server (IIS) --- Close

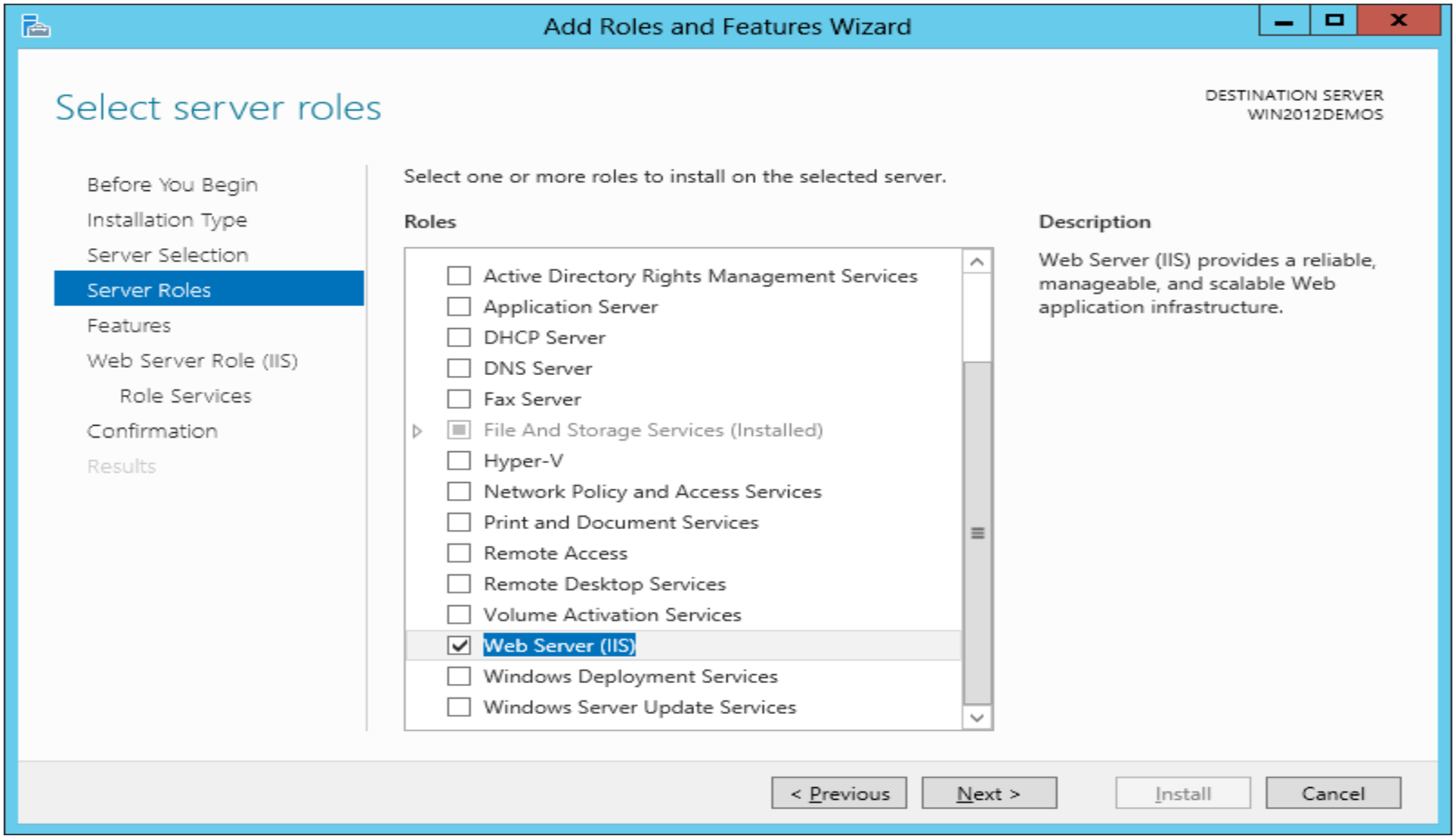
4) Check or create a new .html file in C:\inetpub\wwwroot\

5)Access the web page in browser using Instance Public IP

- Note: Turn off the Windows VM firewall (If required)

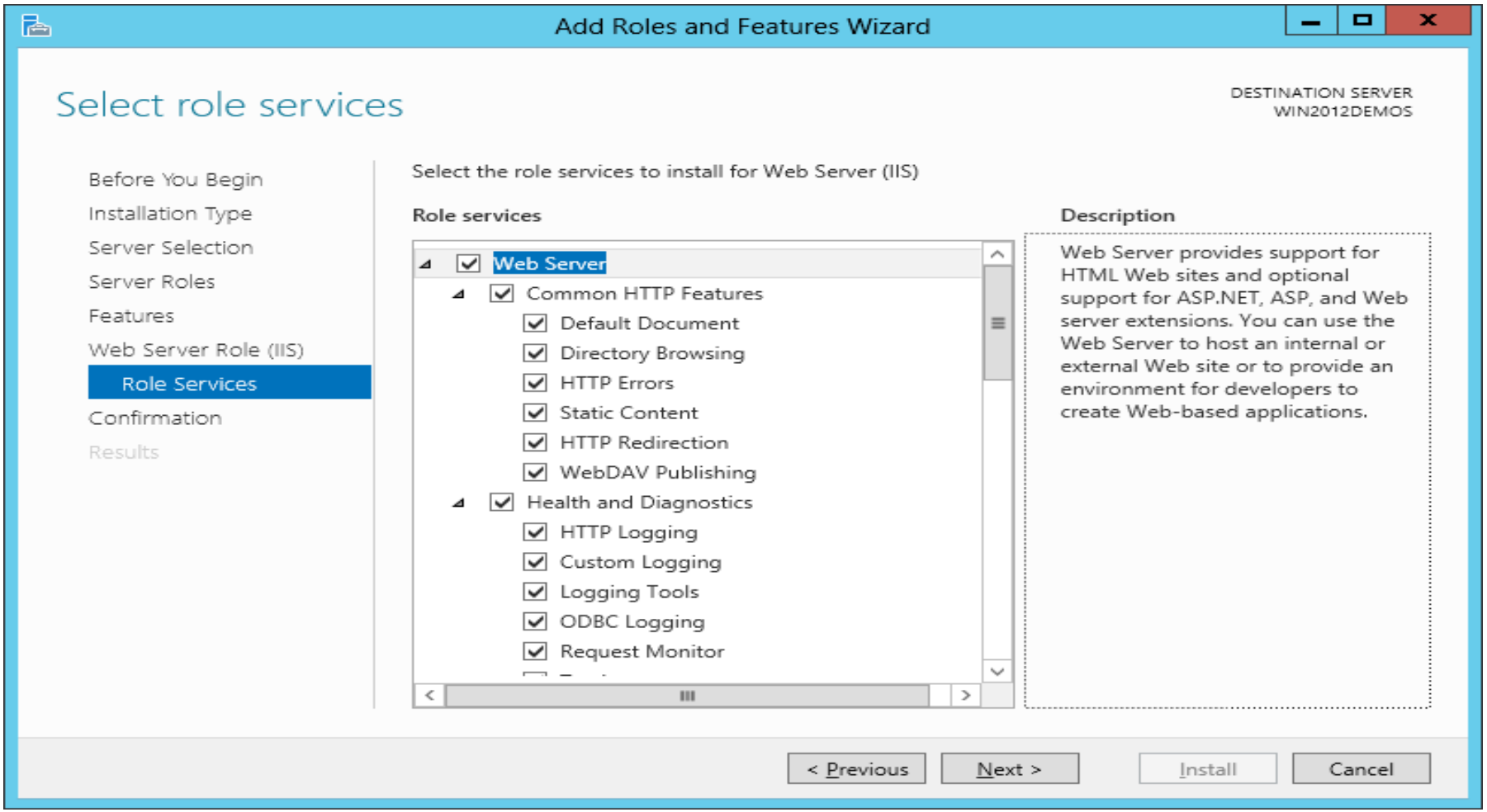
Installing IIS

Open server manager –Add roles and features –next –next –next— select web server (IIS)



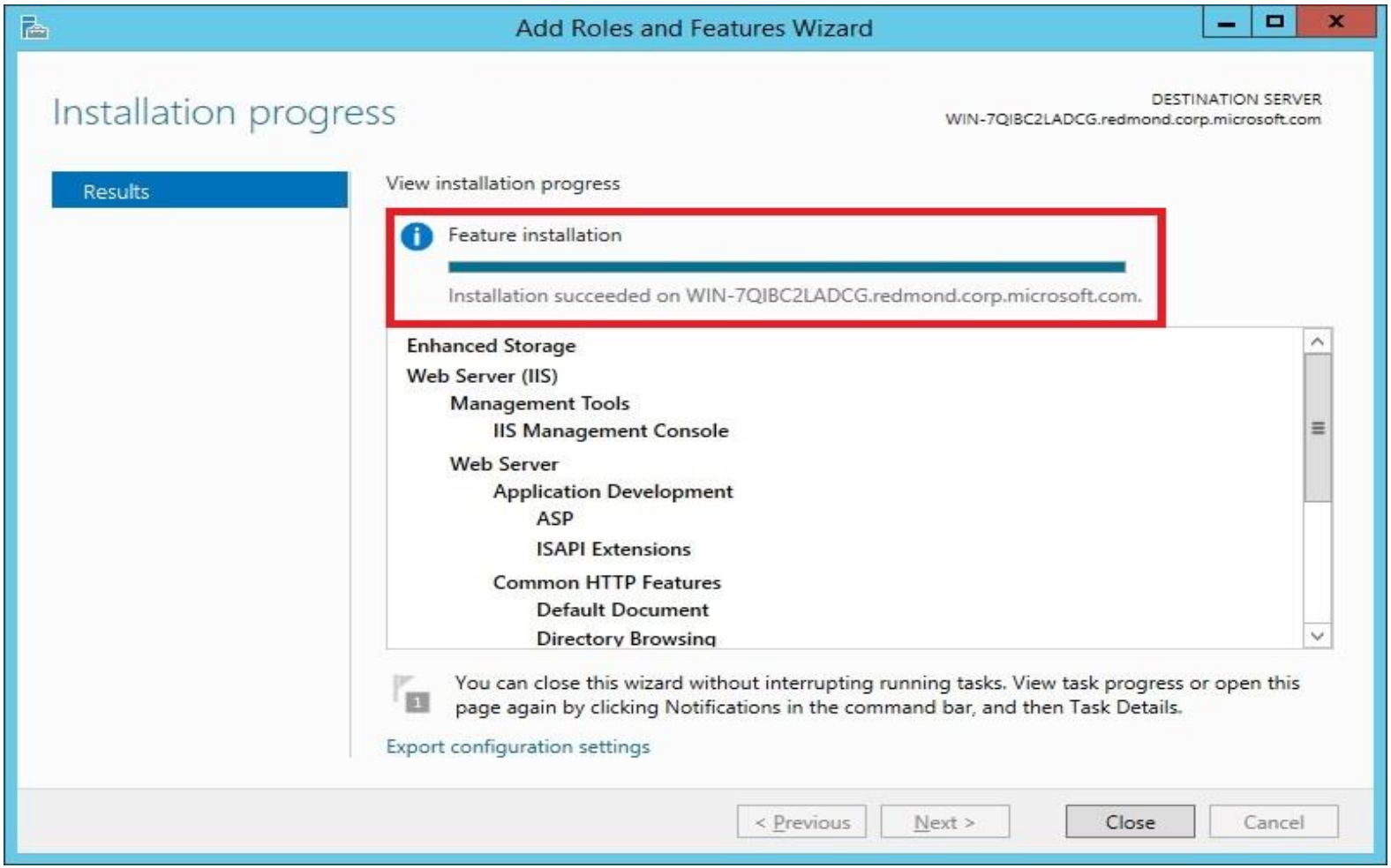
Installing IIS

Next—next--



Installing IIS

Finally click on Install



Installing HTTP Web server in RHEL

yum install httpd -y
cd /var/www/html/
#ls
nano index .html
<html>
<h1> Welcome to AWS training </h1>
</html>
systemctl start httpd or service httpd start
systemctl enable httpd or chkconfig httpd on
How to access : Open web browser and type :-
http://instance-public-ip or http://instance-public-ip/mobile.html

Installing Apache Web server in Ubuntu

```
# apt-get update
# apt install apache2
# cd /var/www/html/
#ls
# nano mobile.html
<html>
<h1> Welcome to Azure training </h1>
</html>
# systemctl start apache2
# systemctl enable  apache2
# ufw disable
```

How to access : Open web browser and type :-

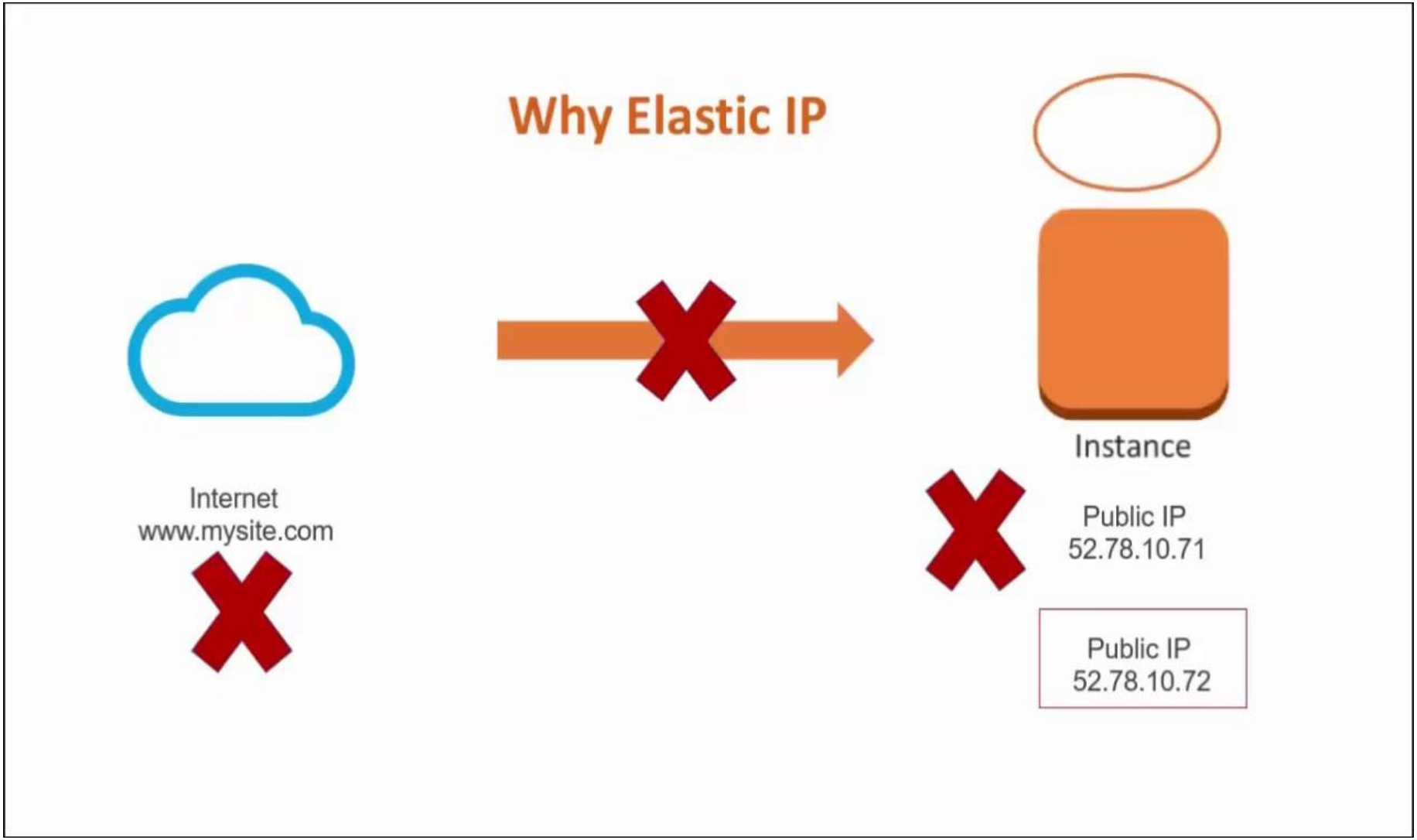
http://instance-public-ip or http://instance-public-ip/mobile.html

AWS Elastic IP

Elastic IP Addresses

- An Elastic IP address is a static IPv4 address designed for dynamic cloud computing. An Elastic IP address is associated with your AWS account. With an Elastic IP address, you can mask the failure of an instance or software by rapidly remapping the address to another instance in your account.

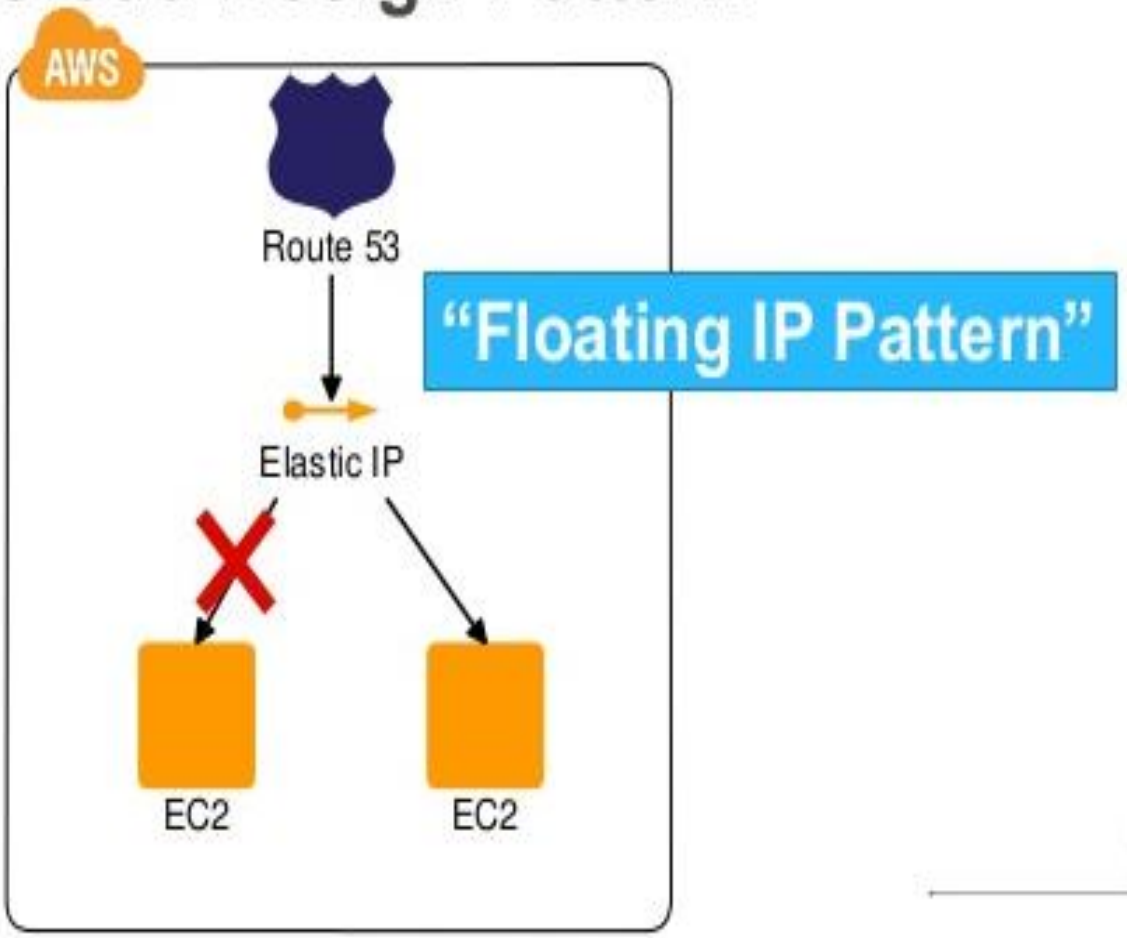
- An Elastic IP address is a public IPv4 address, which is reachable from the internet. If your instance does not have a public IPv4 address, you can associate an Elastic IP address with your instance to enable communication with the internet.


Why Elastic IP
Internet
www.mysite.com
Instance
Public IP
52.78.10.71
Public IP
52.78.10.72

Elastic IP Essentials

- Static IP that can be associated with an EC2 instance
- Can be moved from one EC2 instance to another
- Replaces existing public IP of an EC2 instance
- Scope limited to an individual AWS region

Example of “Cloud Design Pattern”



Elastic IP Address Basics

1) To use an Elastic IP address, you first allocate one to your account, and then associate it with your instance or a network interface.

2) When you associate an Elastic IP address with an instance or its primary network interface, the instance's public IPv4 address (if it had one) is released back into Amazon's pool of public IPv4 addresses. You cannot reuse a public IPv4 address.

3) You can disassociate an Elastic IP address from a resource, and reassociate it with a different resource. Any open connections to an instance continue to work for a time even after you disassociate its Elastic IP address and reassociate it with another instance.

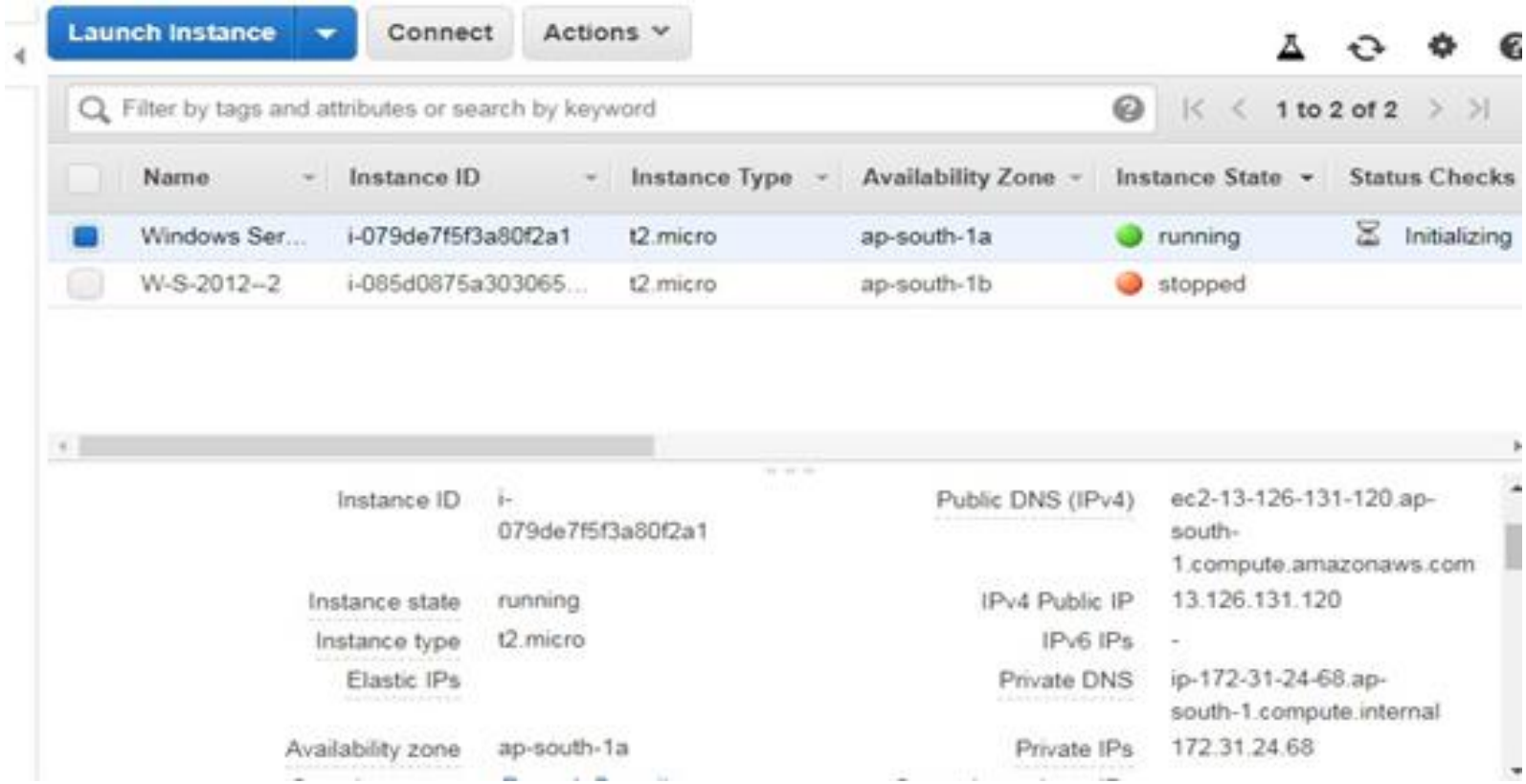
4) A disassociated Elastic IP address remains allocated to your account until you explicitly release it.

How charge applied in Free tier

Elastic IP	Associate	Charges
Allocated	Associated with running Instance	No charge for 1 IP
Allocated	Associated with stopped Instance	Charged
Allocated	Not associated with any Instance	Charged

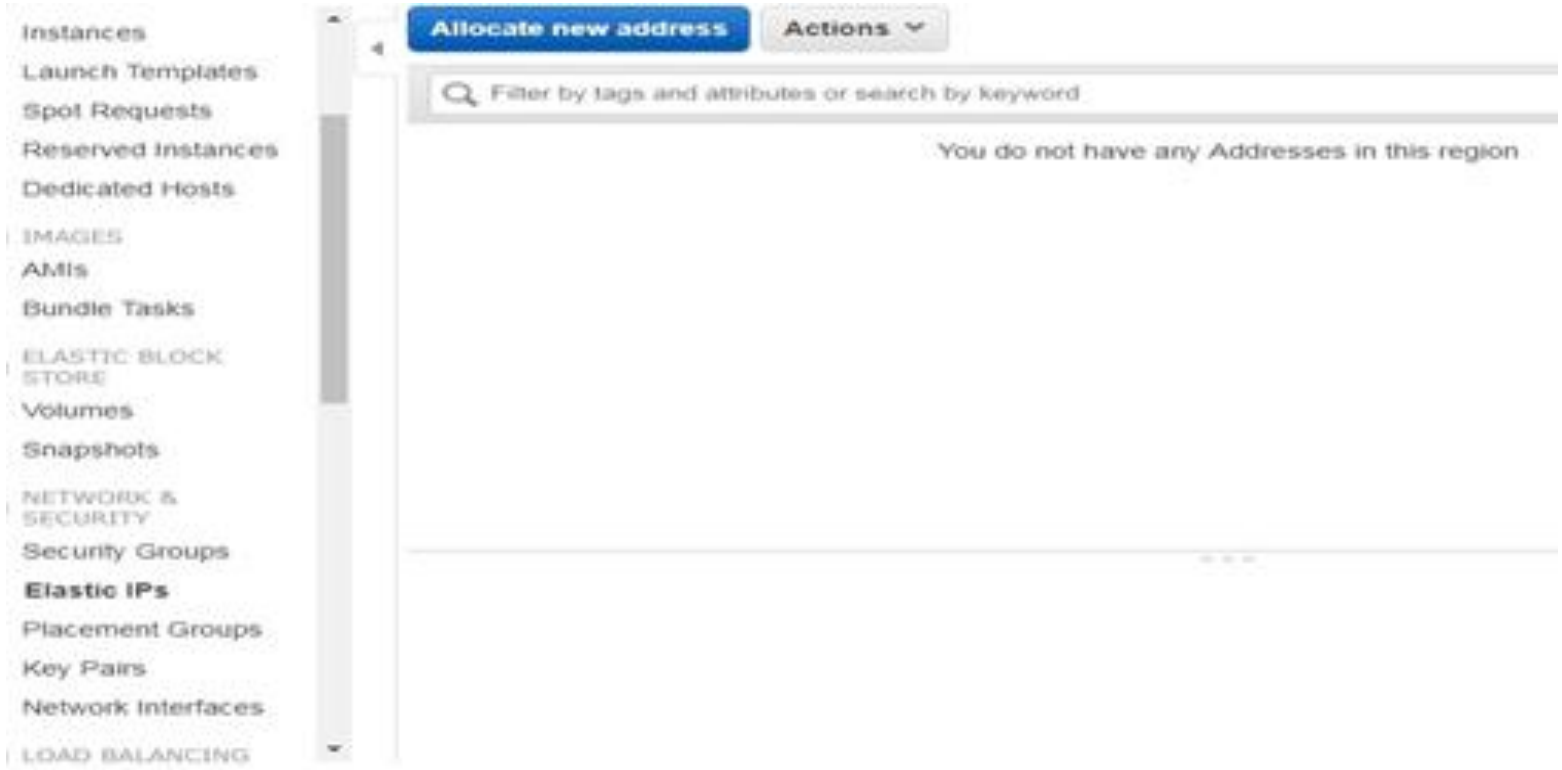
Lab—Check current dynamic IP

Check the current IP of Instance—Stop and start the Instance again and check the IP– IP changed



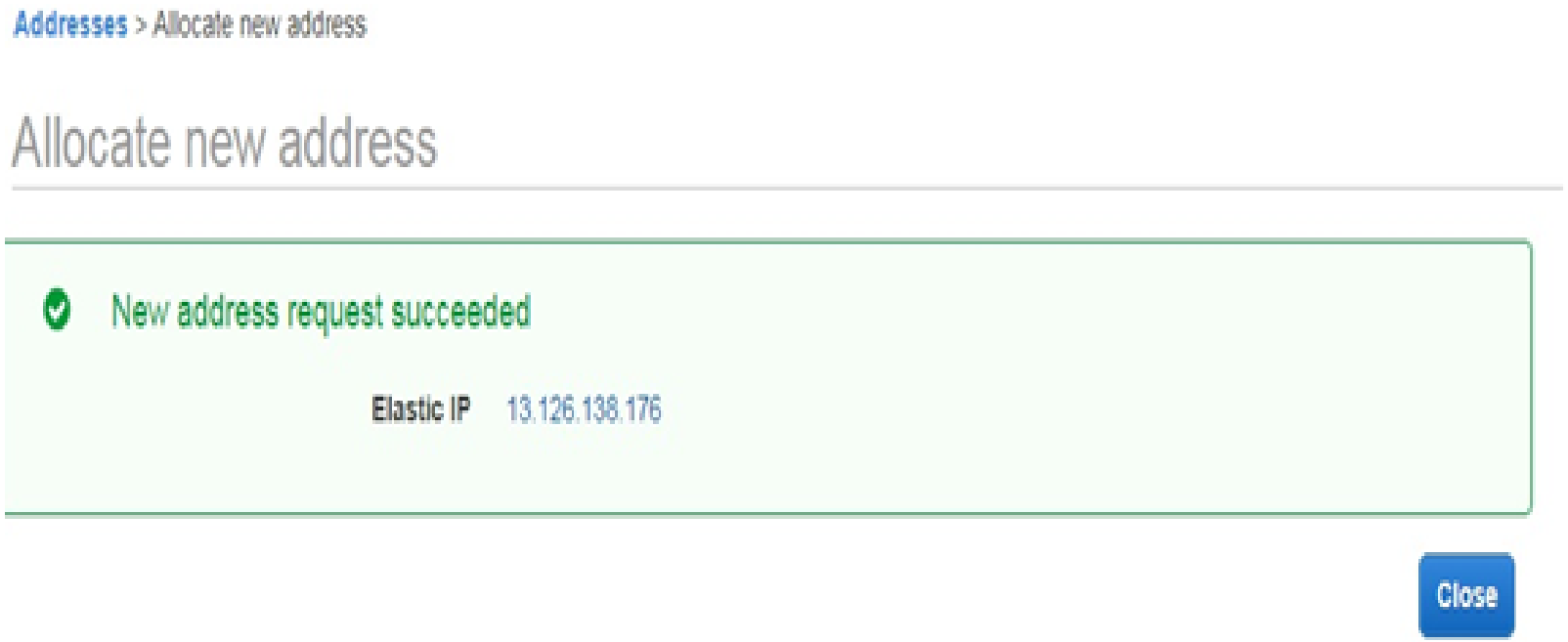
Lab –Allocate Elastic IP

Click Elastic IP then Allocates new address



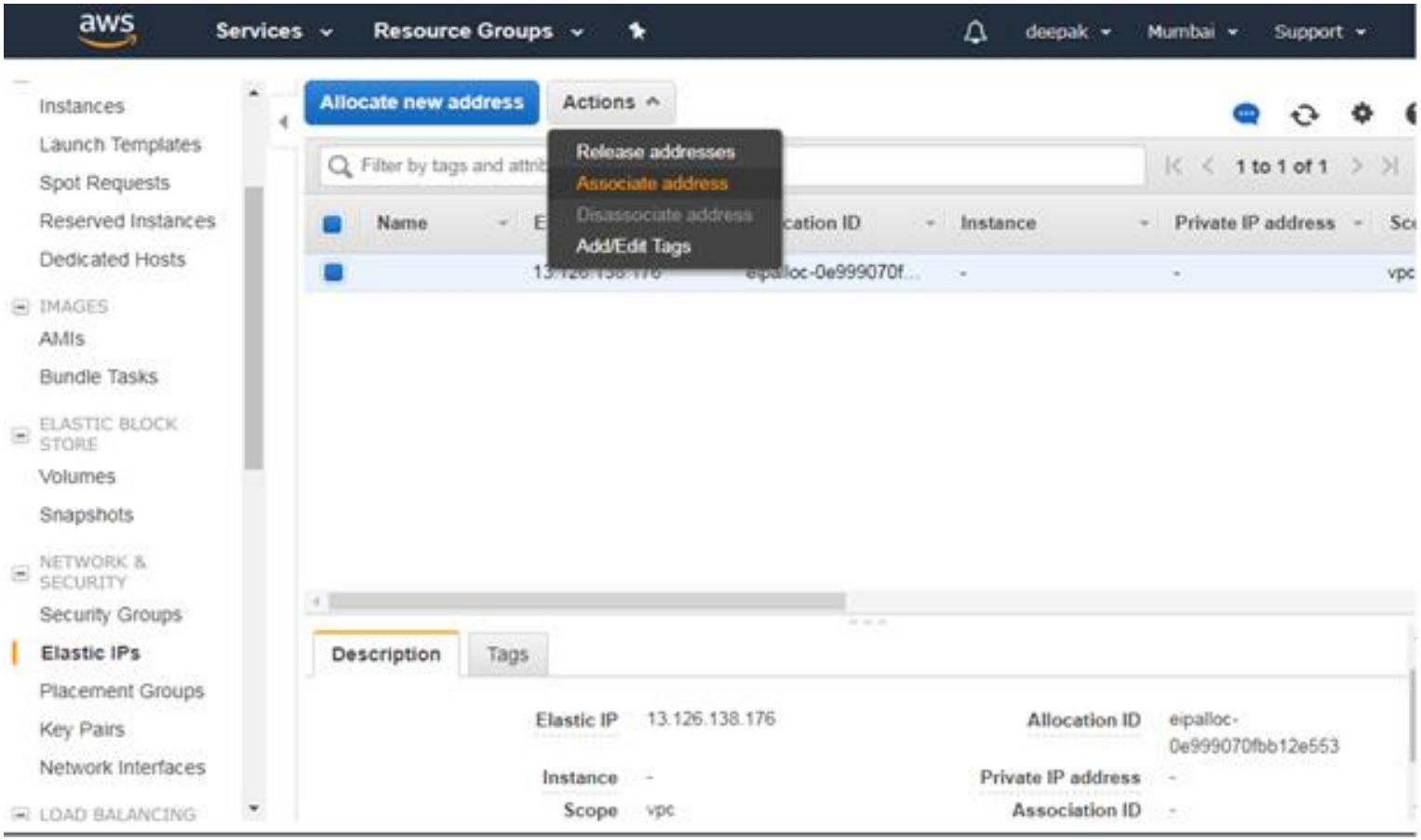
Lab –Allocate Elastic IP

Now click on Allocate--Close



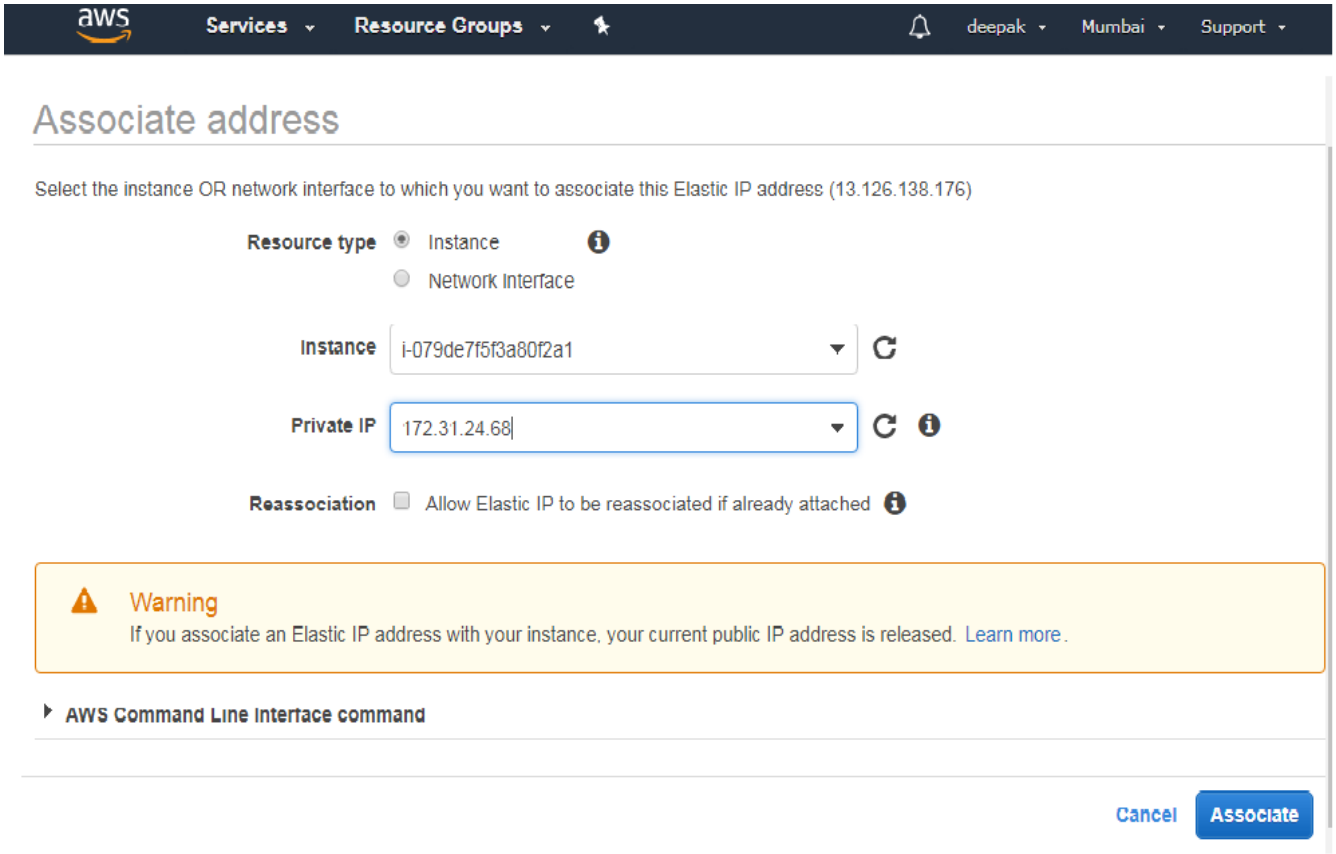
Lab –Associate with Instance

Now click on action the Associate address



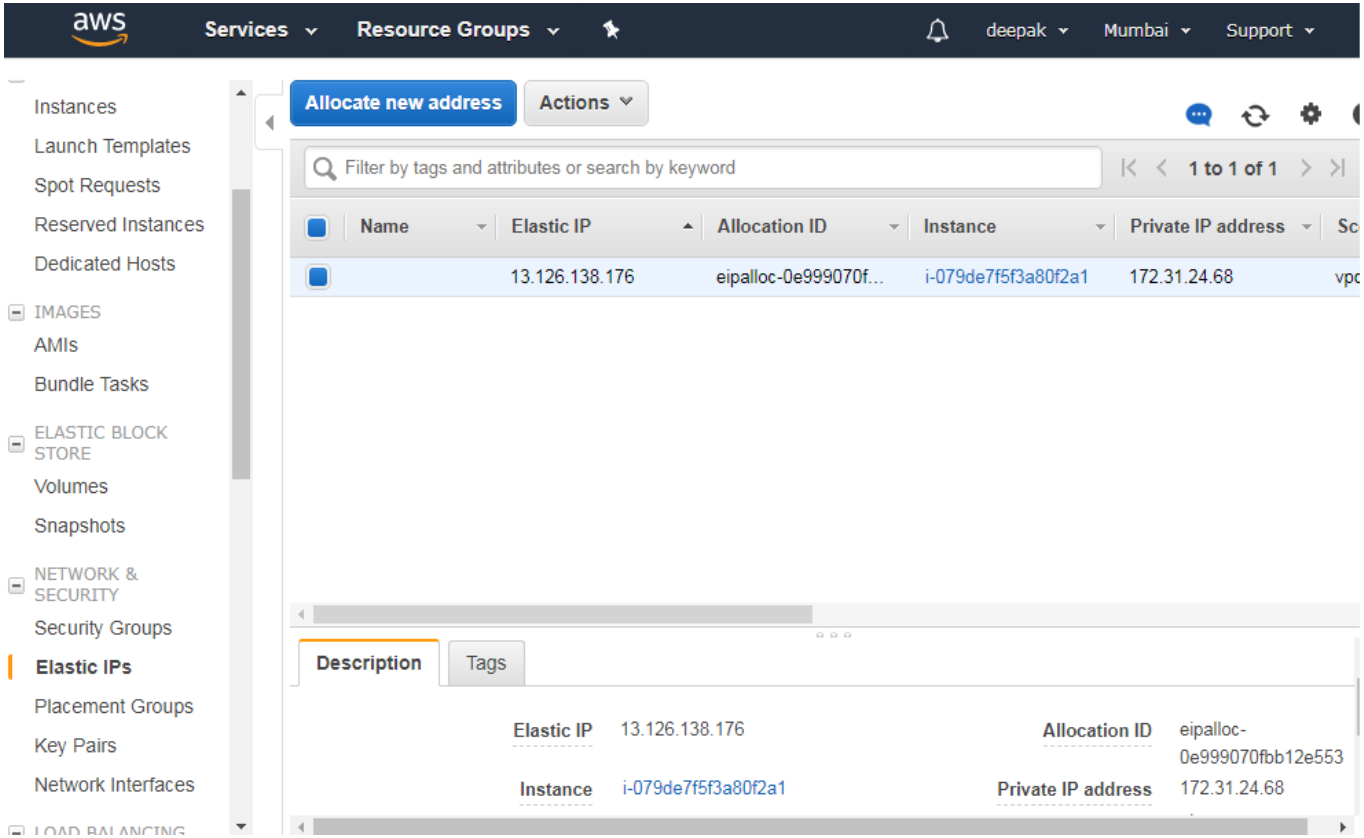
Lab –Associate with Instance

Select Instance and click on Associate



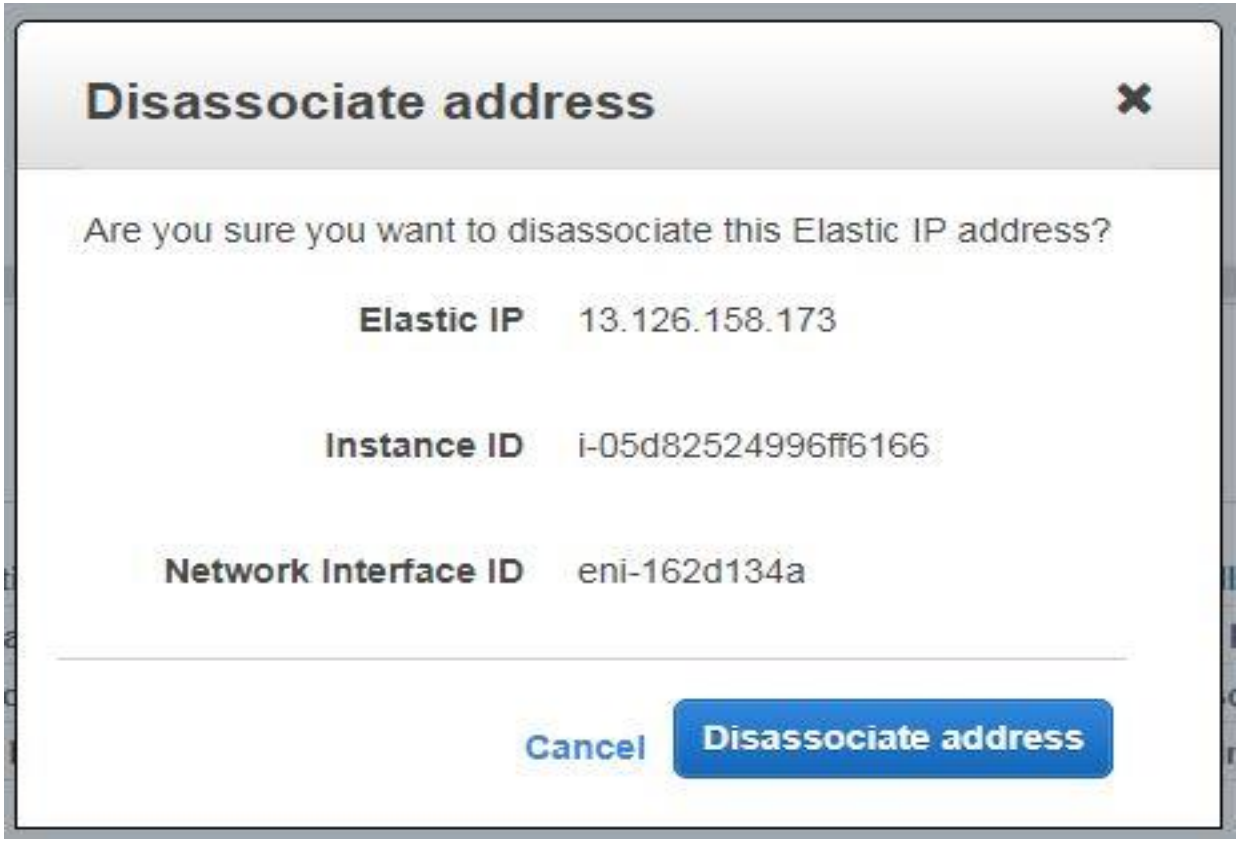
Lab –Associate with Instance

Now check the obtained Elastic IP—Stop the instance and start it again –We will get same IP



Lab –Disassociate and release IP

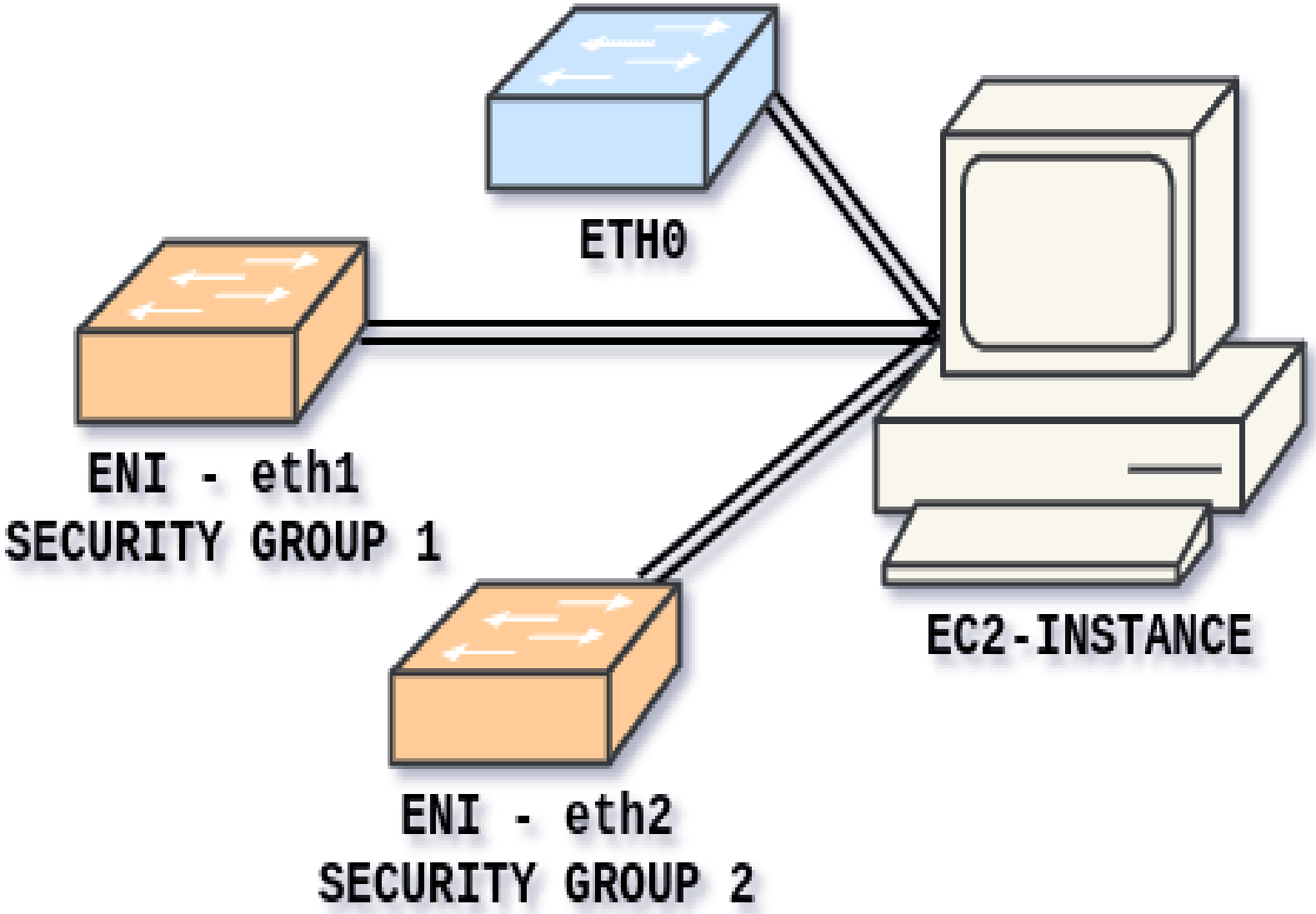
Elastic IP- select allocated IP –Action – Disassociate –again select ---action --release



EC2 Elastic IP and Elastic Network Interfaces

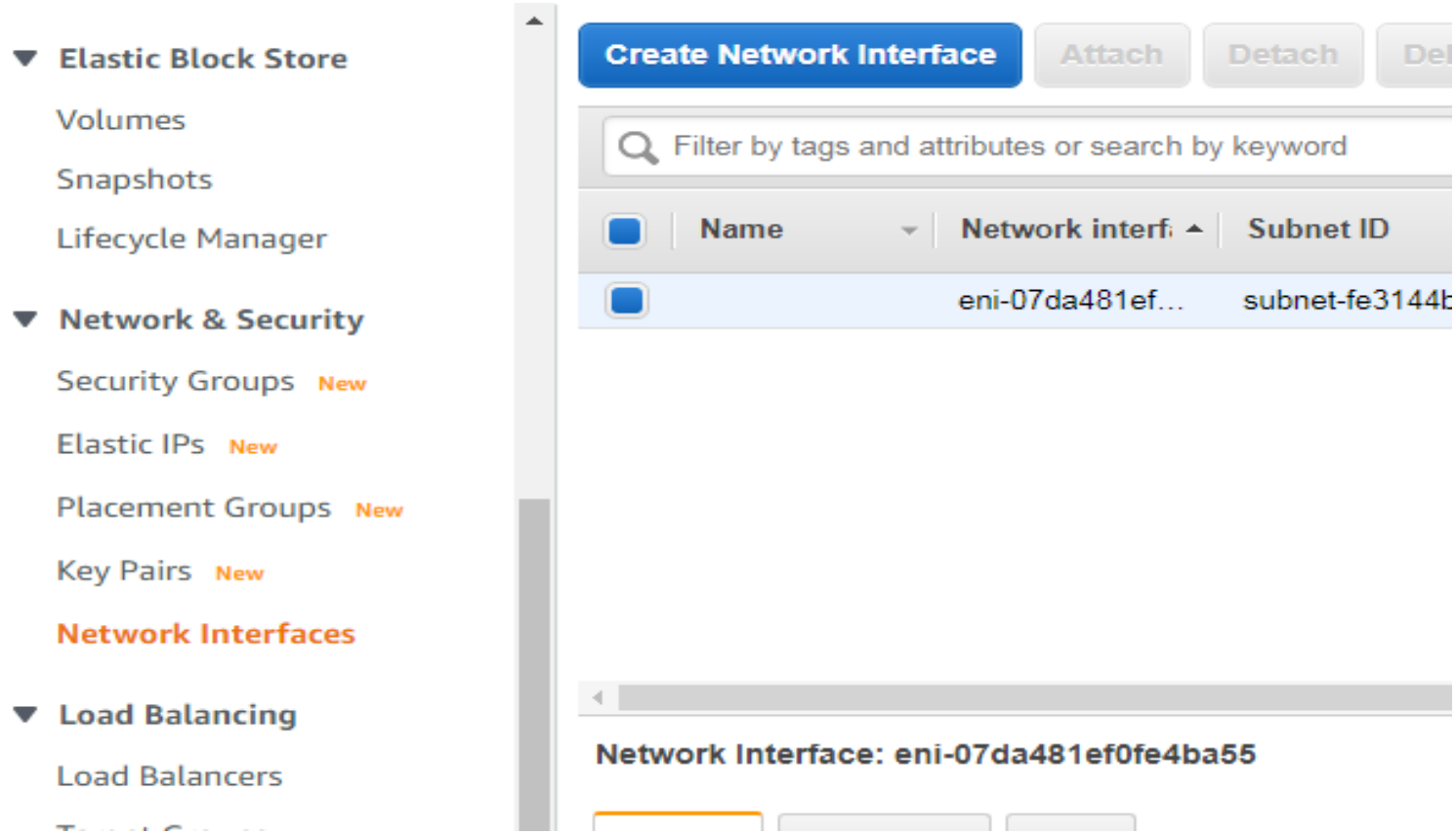
ENI Basic

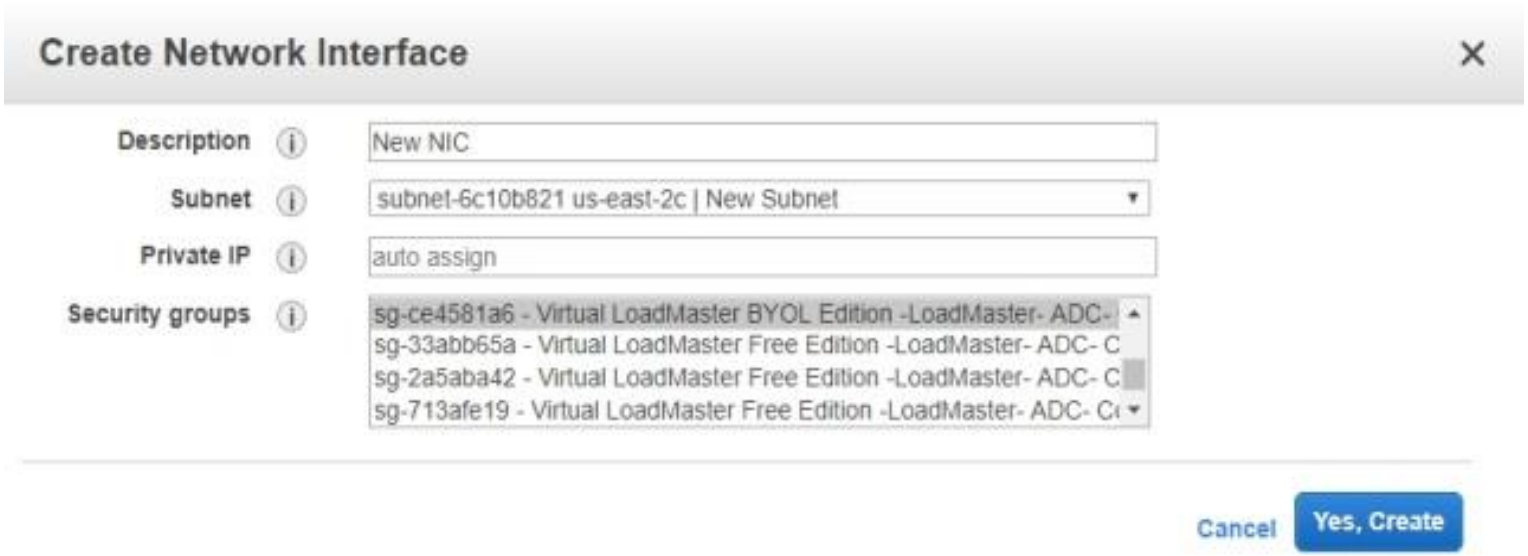
- You can create a network interface, attach it to an instance, detach it from an instance, and attach it to another instance. The attributes of a network interface follow it as it's attached or detached from an instance and reattached to another instance. When you move a network interface from one instance to another, network traffic is redirected to the new instance.
- You can also modify the attributes of your network interface, including changing its security groups and managing its IP addresses.
- Every instance in a VPC has a default network interface, called the *primary network interface*. You cannot detach a primary network interface from an instance. You can create and attach additional network interfaces. The maximum number of network interfaces that you can use varies by instance type.


ETH0
ENI - eth1
SECURITY GROUP 1
EC2-INSTANCE
ENI - eth2
SECURITY GROUP 2

ENI Lab

1) Open EC2 –Network Interface –Create a new interface –select subnet and select Security group -- and assign Elastic IP to it.—Then attach to any Instance





Associate address

Select the instance OR network interface to which you want to associate this Elastic IP address (52.31.58.118)

Resource type ○ Instance ● Network interface

Network interface eni-415e9270

Private IP 20.0.1.25

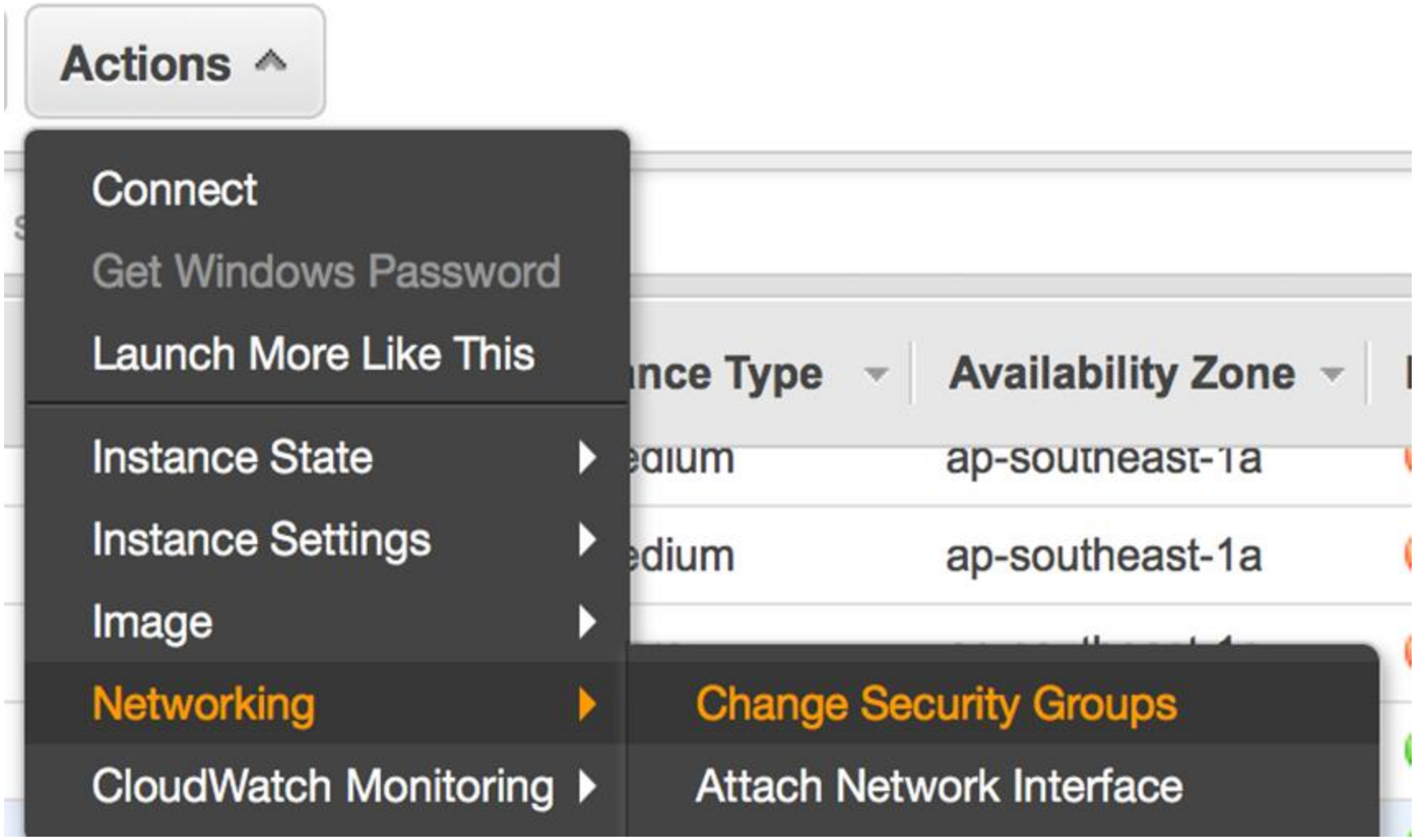
Reassociation ☑ Allow Elastic IP to be reassociated if already attached

Security Group – Pre Configured

EC2—Security group –create Security group—give name and description--—Inbound rules –Add rule--select required port – change destination as anywhere –save.

While creating instance or any other compute recourses we can add this security group.

Change security Security Group of running instance

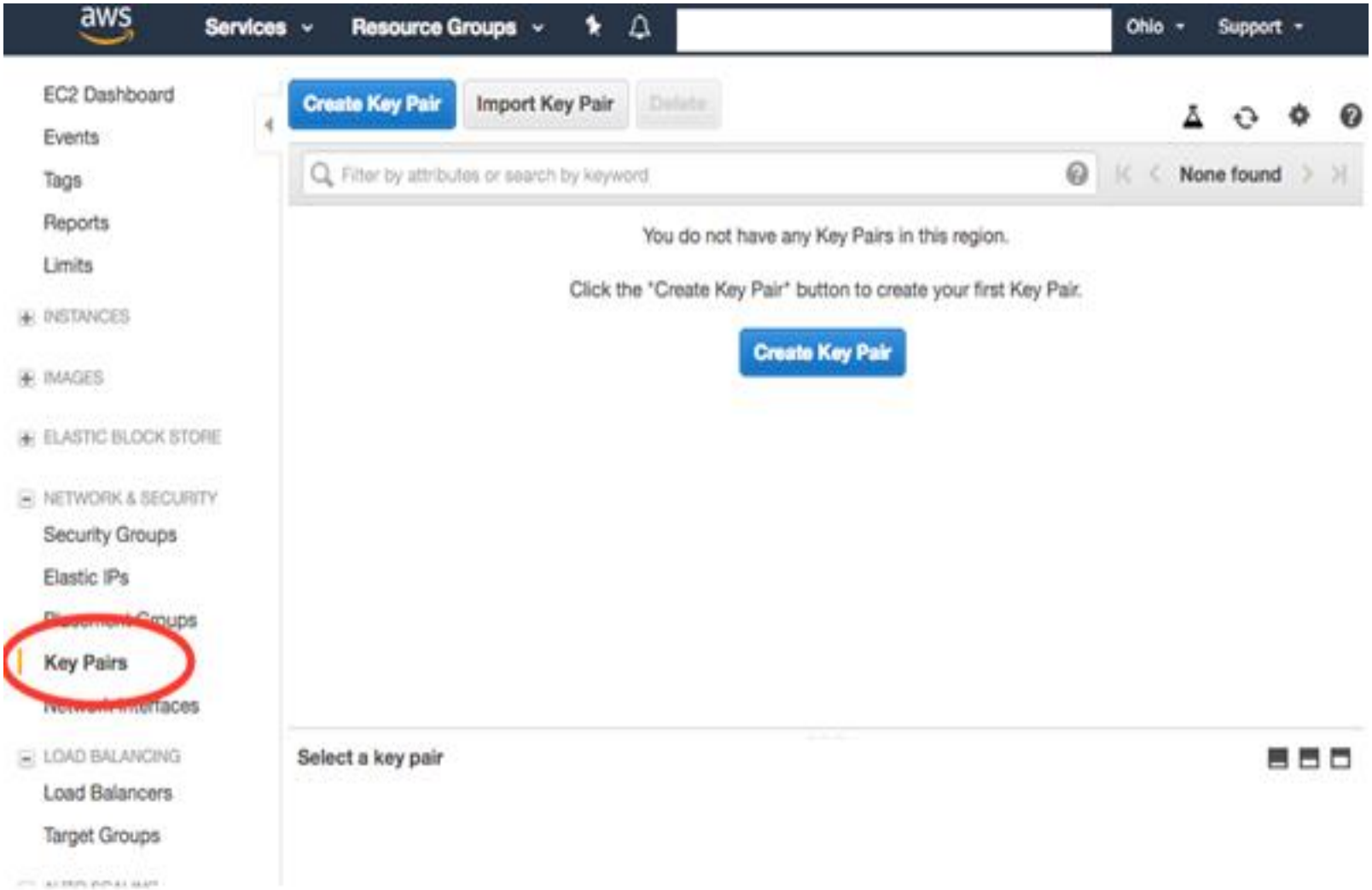


Keypair Lab

EC2—keypair – create keypair –give keypair name—select format (.pem) – create

.PEM →Privacy-Enhanced Mail (**PEM**) is a de facto file format for storing and sending cryptographic keys, certificates, and other data,

.PPK → Putty private key(PPK) files are used by PuTTY, a free SSH and Telnet client.


aws
Services
Resource Groups
Ohio
Support
EC2 Dashboard
Events
Tags
Reports
Limits
INSTANCES
IMAGES
ELASTIC BLOCK STORE
NETWORK & SECURITY
Security Groups
Elastic IPs
Key Pairs
LOAD BALANCING
Load Balancers
Target Groups
Create Key Pair
Import Key Pair
Delete
Filter by attributes or search by keyword
None found
You do not have any Key Pairs in this region.
Click the "Create Key Pair" button to create your first Key Pair.
Create Key Pair
Select a key pair