Implement Apache Web Server On Cloud

(Launch Apache Web Server Using AWS EC2)

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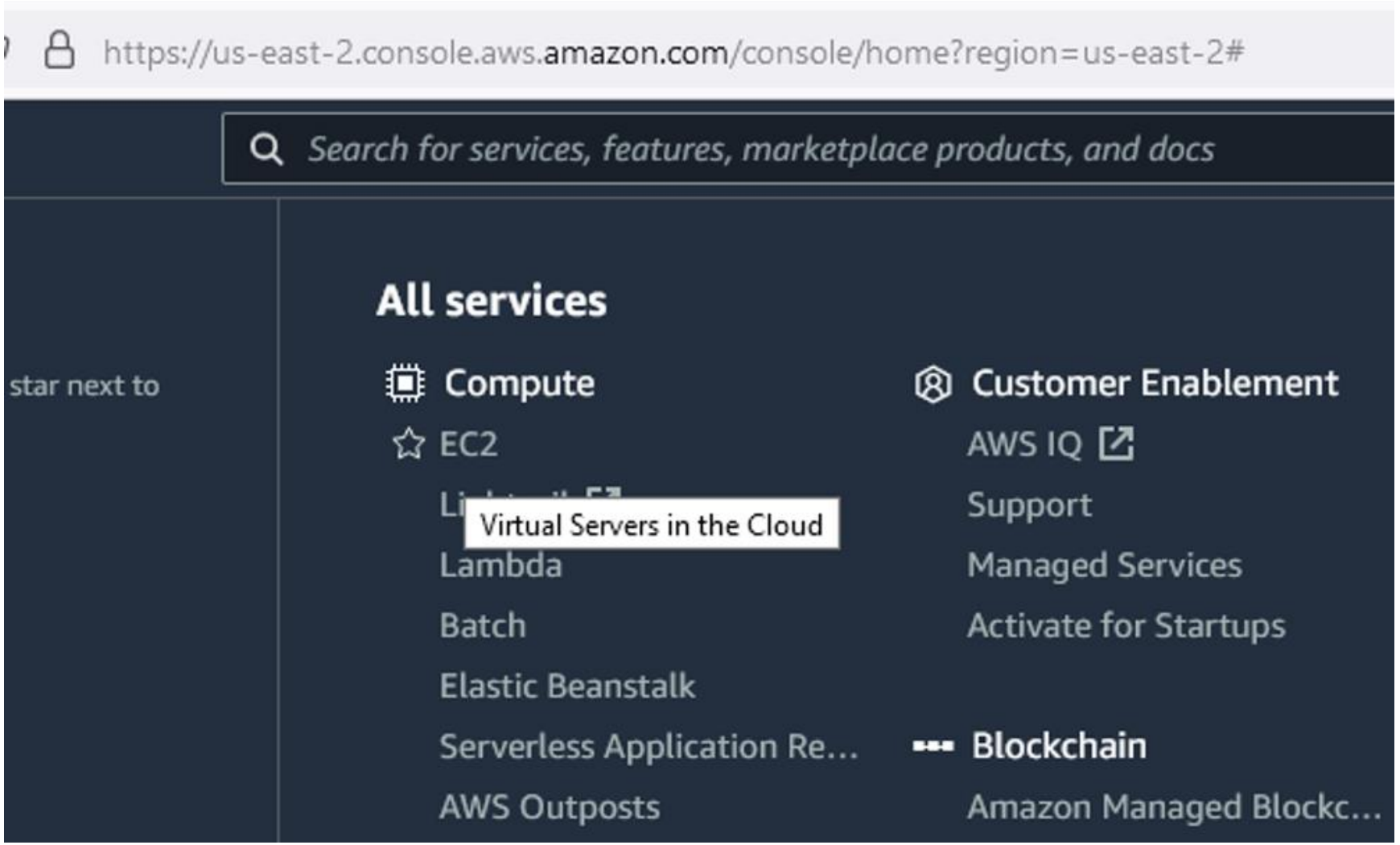
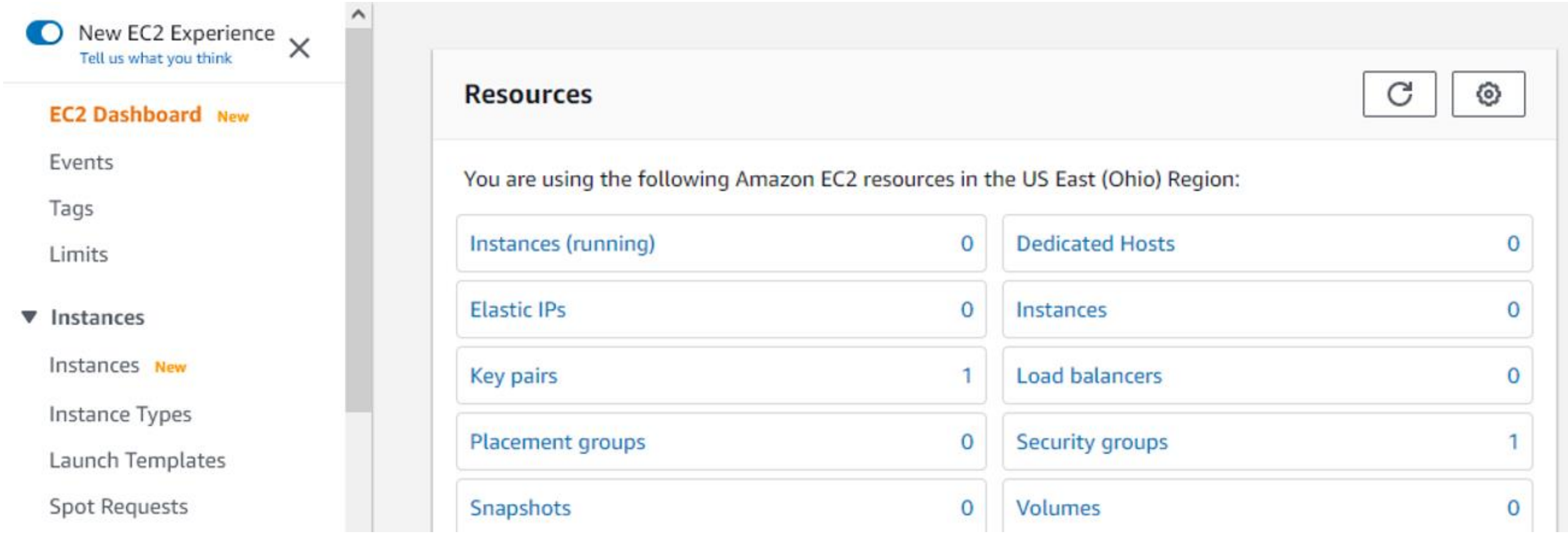
Launch EC2 Instance

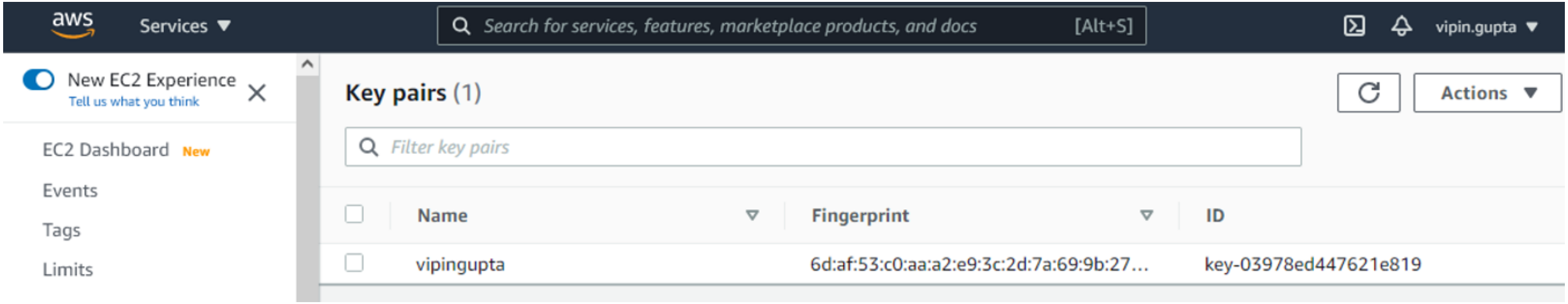


Find EC2 Service

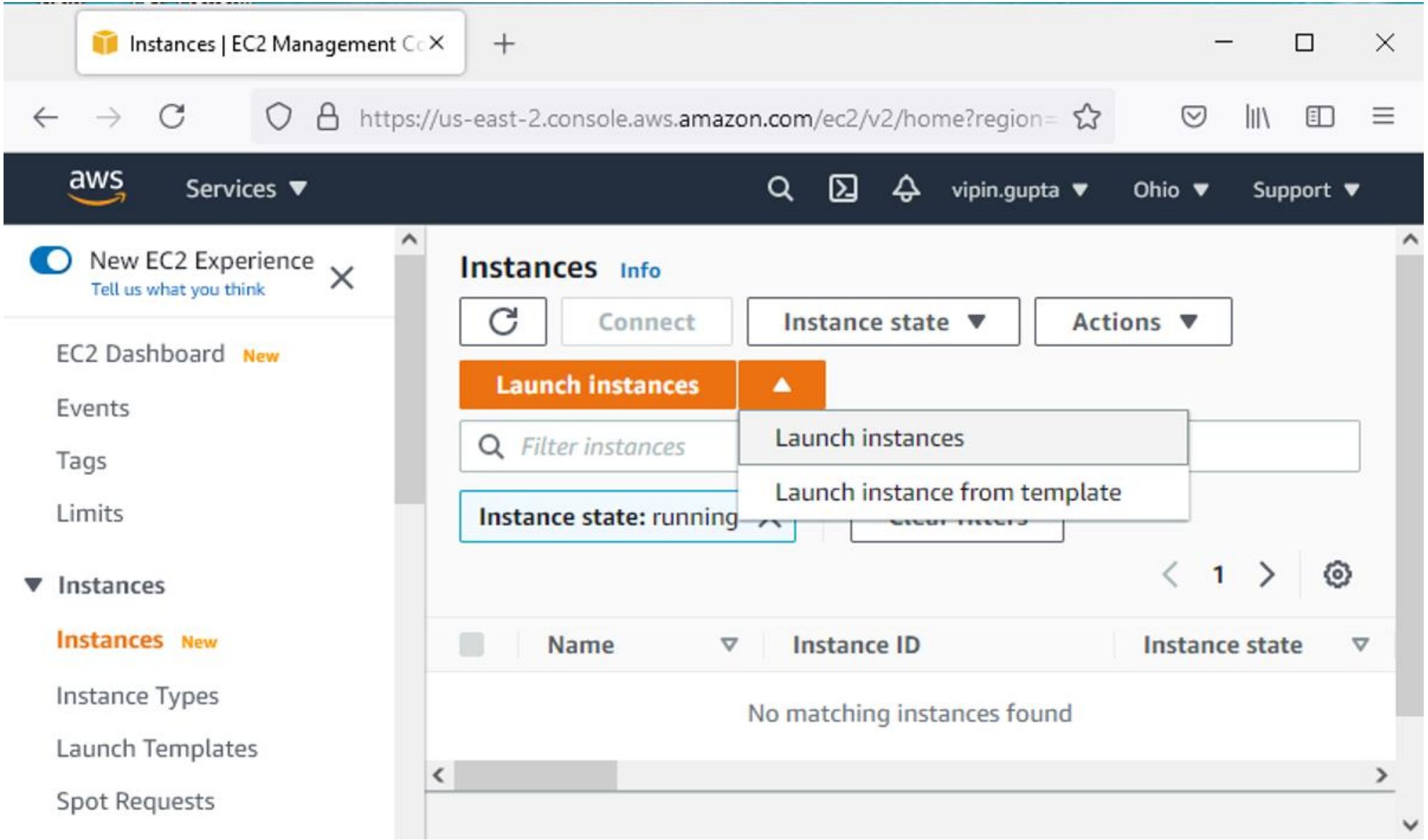
Launch EC2 Instance



View Key Pair

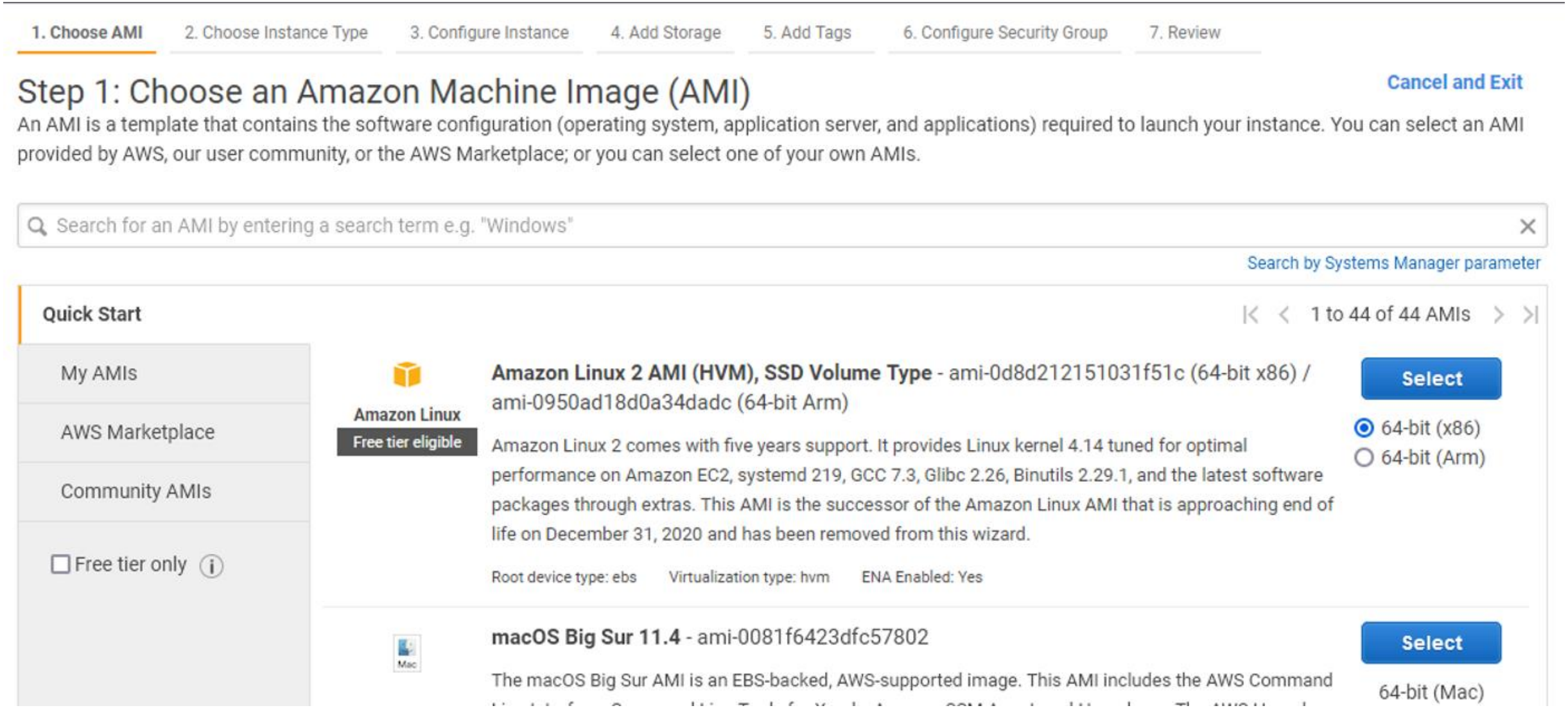


Launch EC2 Instance



Click on “Launch Instances”

Launch EC2 Instance



Select Linux 2 AMI which is also Free tier eligible

Launch EC2 Instance

Step 2: Choose an Instance Type

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources for your applications. Learn more about instance types and how they can meet your computing needs.

Filter by: All instance families | Current generation | Show/Hide Columns

Currently selected: t2.micro (- ECUs, 1 vCPUs, 2.5 GHz, -, 1 GiB memory, EBS only)

	Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance	IPv6 Support
☐	t2	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
☑	t2	t2.micro Free tier eligible	1	1	EBS only	-	Low to Moderate	Yes
☐	t2	t2.small	1	2	EBS only	-	Low to Moderate	Yes

Cancel | Previous | Review and Launch | Next: Configure Instance Details

Launch EC2 Instance

1. Choose AMI | 2. Choose Instance Type | **3. Configure Instance** | 4. Add Storage | 5. Add Tags | 6. Configure Security Group | 7. Review

Step 3: Configure Instance Details

Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage of the lower pricing, assign an access management role to the instance, and more.

Number of instances (i) 1 Launch into Auto Scaling Group (i)

Purchasing option (i) ☐ Request Spot instances

Network (i) vpc-fee37a95 (default) ↻ Create new VPC

Subnet (i) No preference (default subnet in any Availability Zone) Create new subnet

Auto-assign Public IP (i) Use subnet setting (Enable)

Launch EC2 Instance

1. Choose AMI | 2. Choose Instance Type | 3. Configure Instance | **4. Add Storage** | 5. Add Tags | 6. Configure Security Group | 7. Review

Step 4: Add Storage

Your instance will be launched with the following storage device settings. You can attach additional EBS volumes and instance store volumes to your instance, or edit the settings of the root volume. You can also attach additional EBS volumes after launching an instance, but not instance store volumes. Learn more about storage options in Amazon EC2.

Volume Type	Device	Snapshot	Size (GiB)	Volume Type	IOPS	Throughput (MB/s)	Delete on Termination	Encryption
Root	/dev/xvda	snap-0e49f571b1ca30ad6	8	General Purpose S	100 / 3000	N/A	☑	Not Encrypt

Add New Volume

Launch EC2 Instance

1. Choose AMI | 2. Choose Instance Type | 3. Configure Instance | 4. Add Storage | **5. Add Tags** | 6. Configure Security Group | 7. Review

Step 5: Add Tags

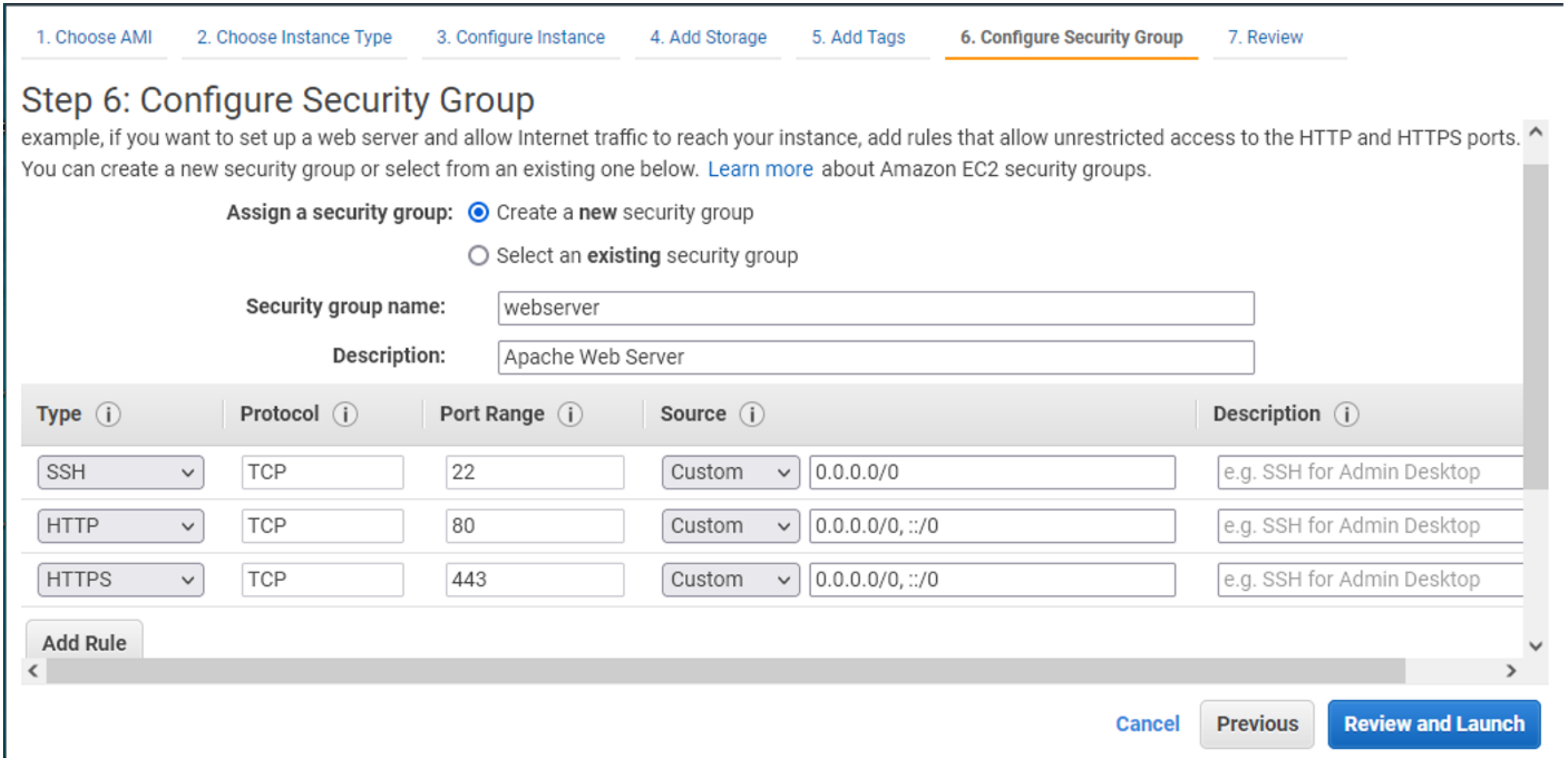
A tag consists of a case-sensitive key-value pair. For example, you could define a tag with key = Name and value = Webserver.
A copy of a tag can be applied to volumes, instances or both.
Tags will be applied to all instances and volumes. Learn more about tagging your Amazon EC2 resources.

Key (128 characters maximum)	Value (256 characters maximum)	Instances	Volumes	Network Interfaces	
Name	Apache Web Server	☑	☑	☑	⊗

Add another tag (Up to 50 tags maximum)

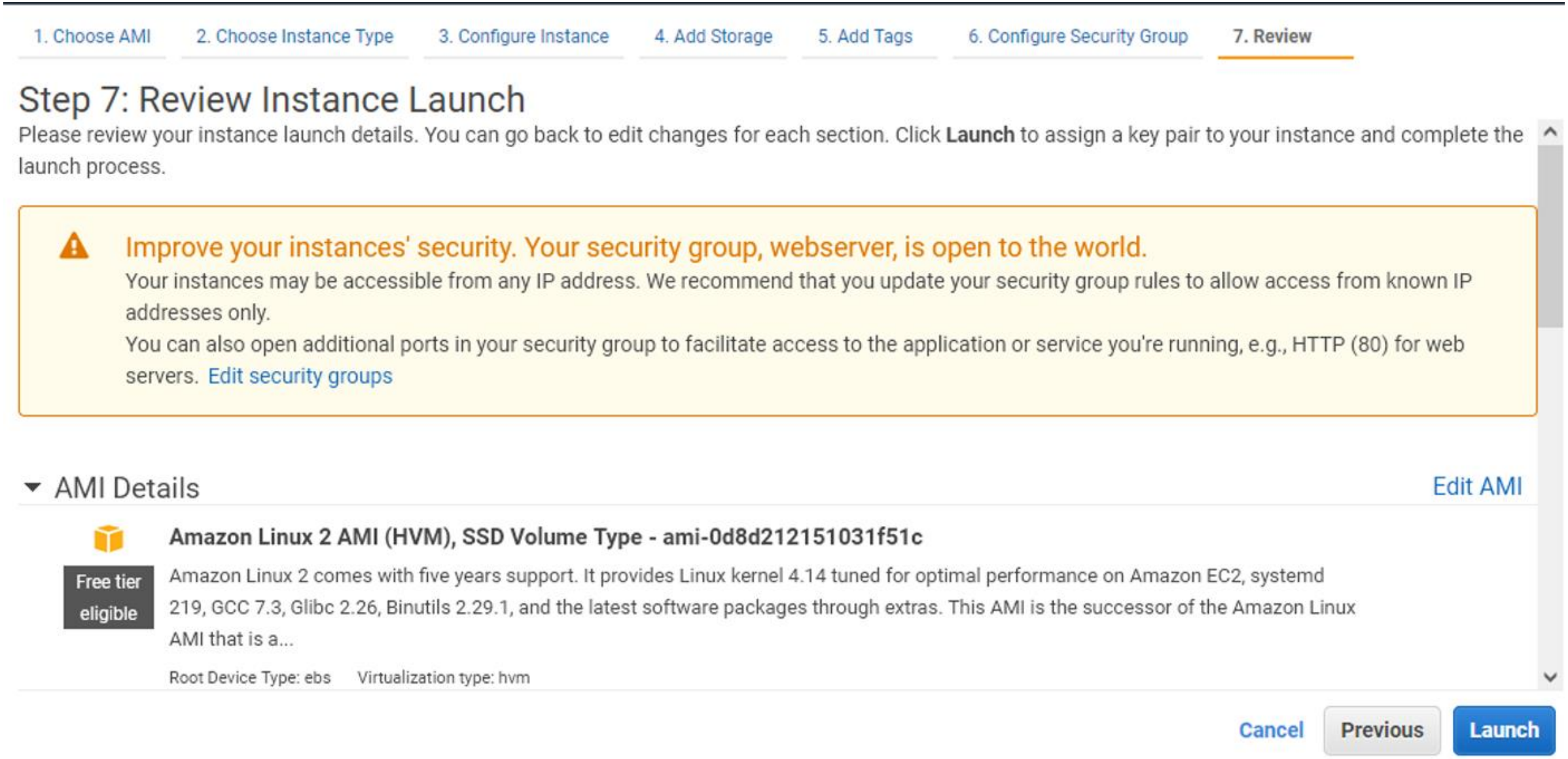
Cancel | Previous | Review and Launch | Next: Configure Security Group

Launch EC2 Instance

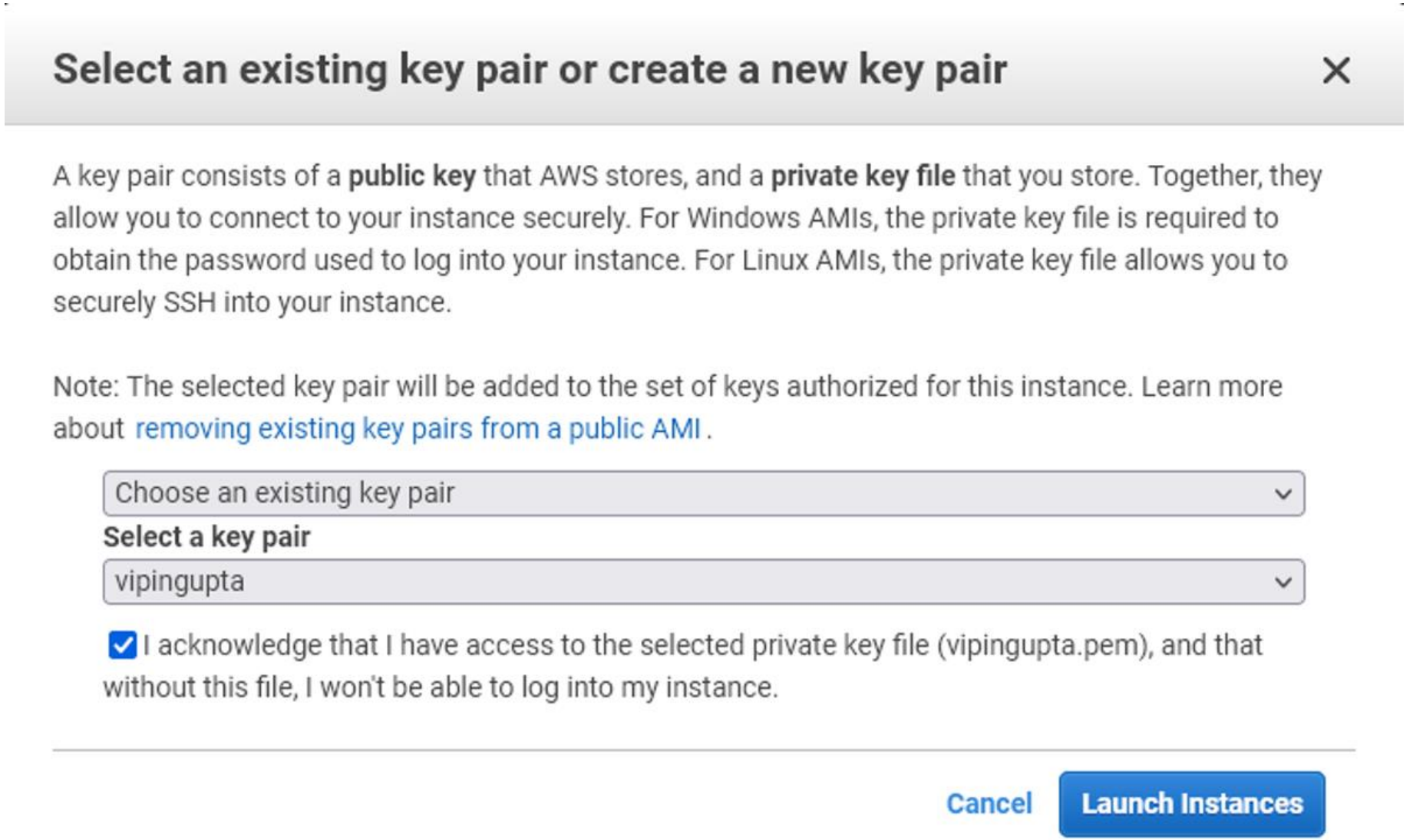


Create security group. Allow traffic on 22, 80 and 443 ports.

Launch EC2 Instance



Launch EC2 Instance



Select key pair.

Launch EC2 Instance

Launch Status

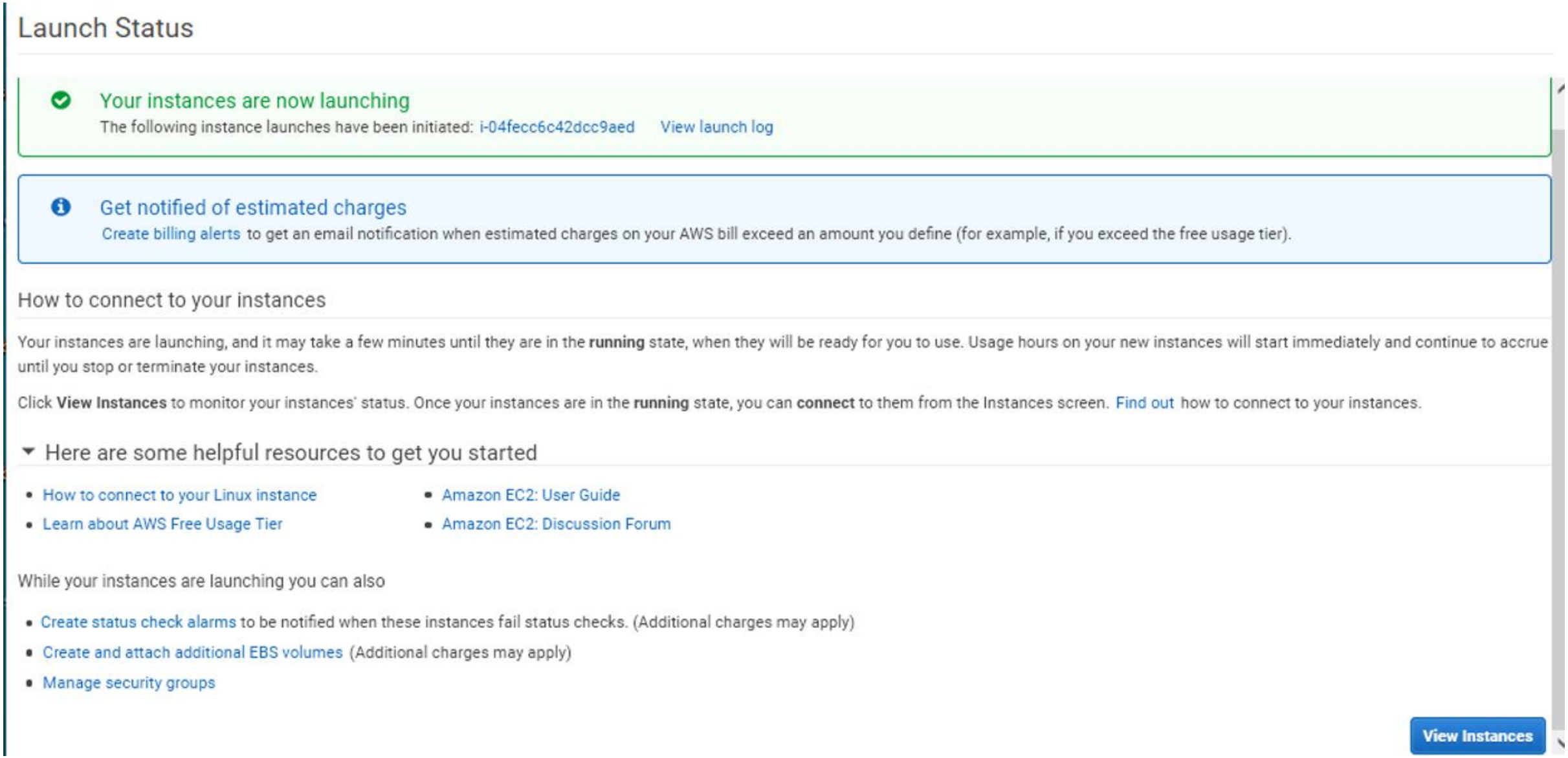
Initiating Instance Launches

Please do not close your browser while this is loading

Creating security groups... Successful

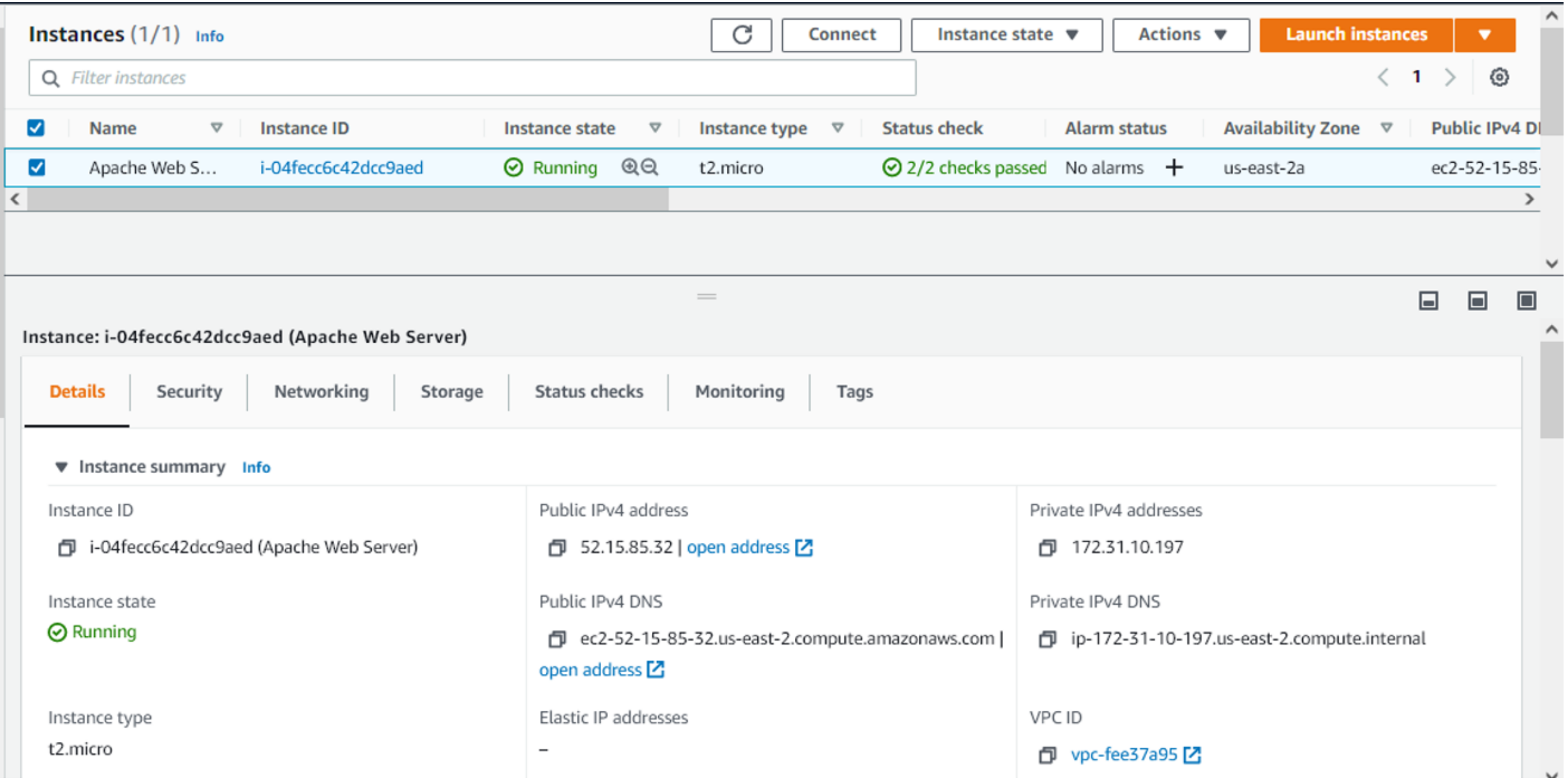
Authorizing inbound rules...

View Instances

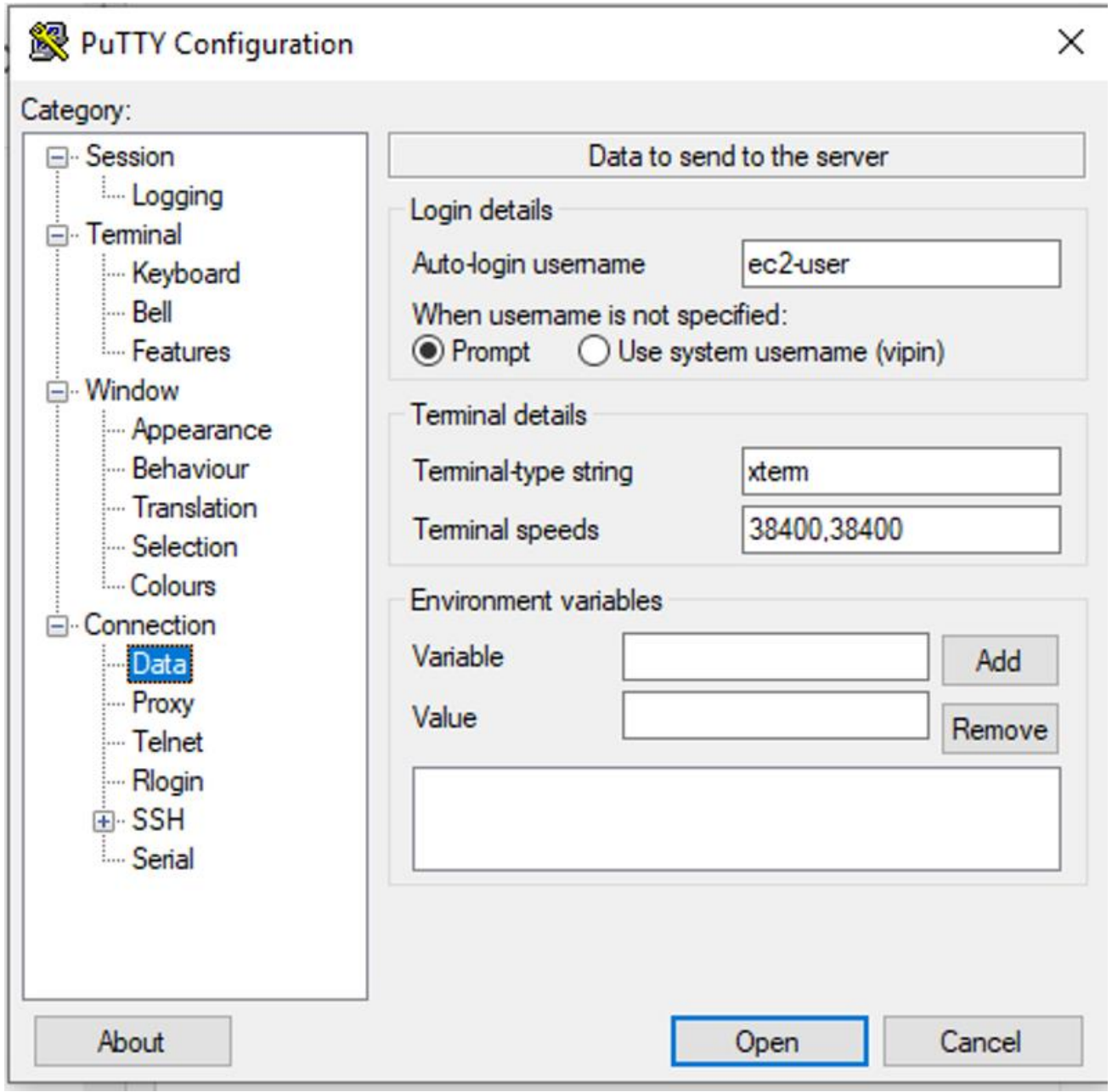


View Instance Details

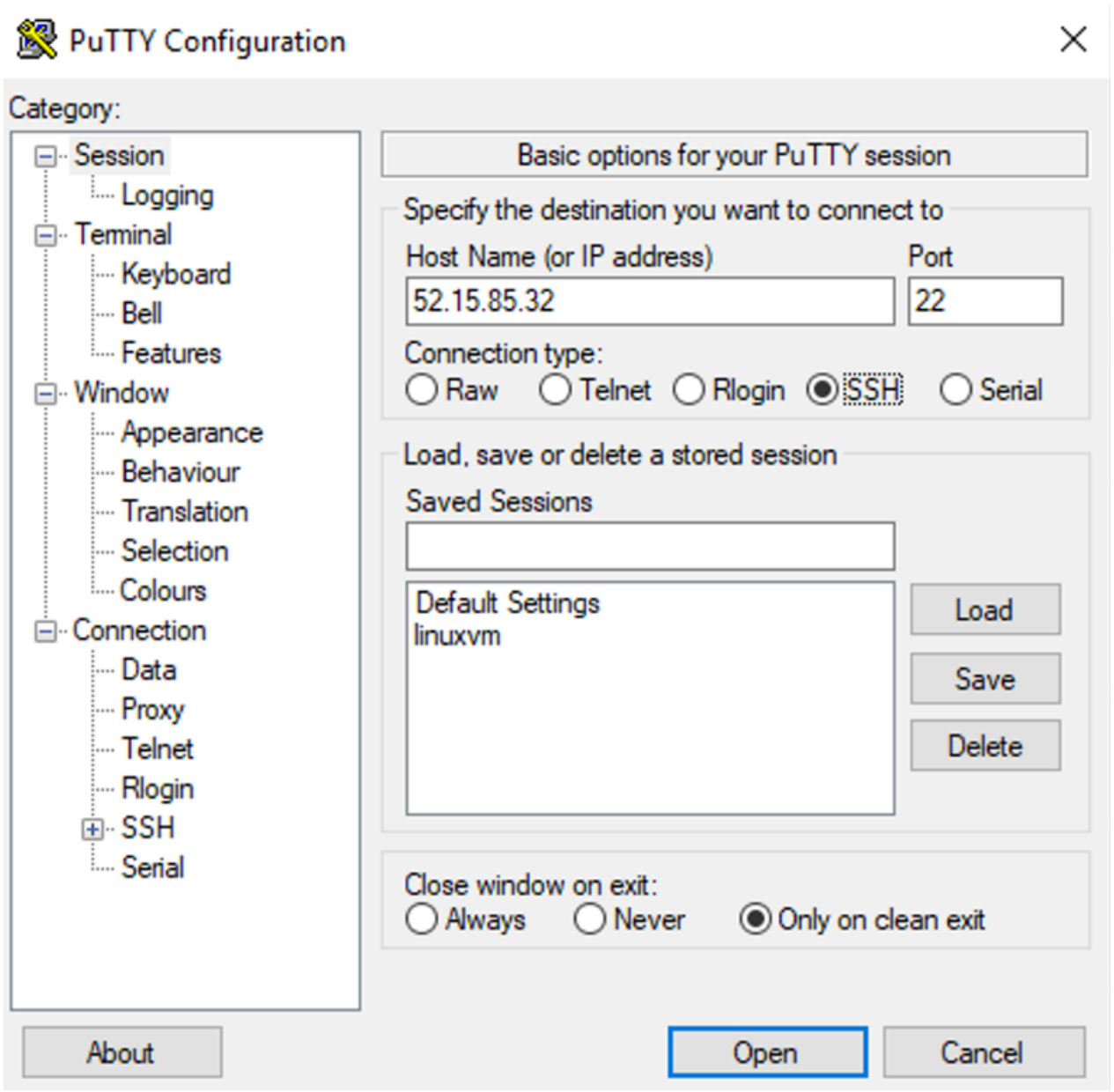
Note down Public IPv4 address



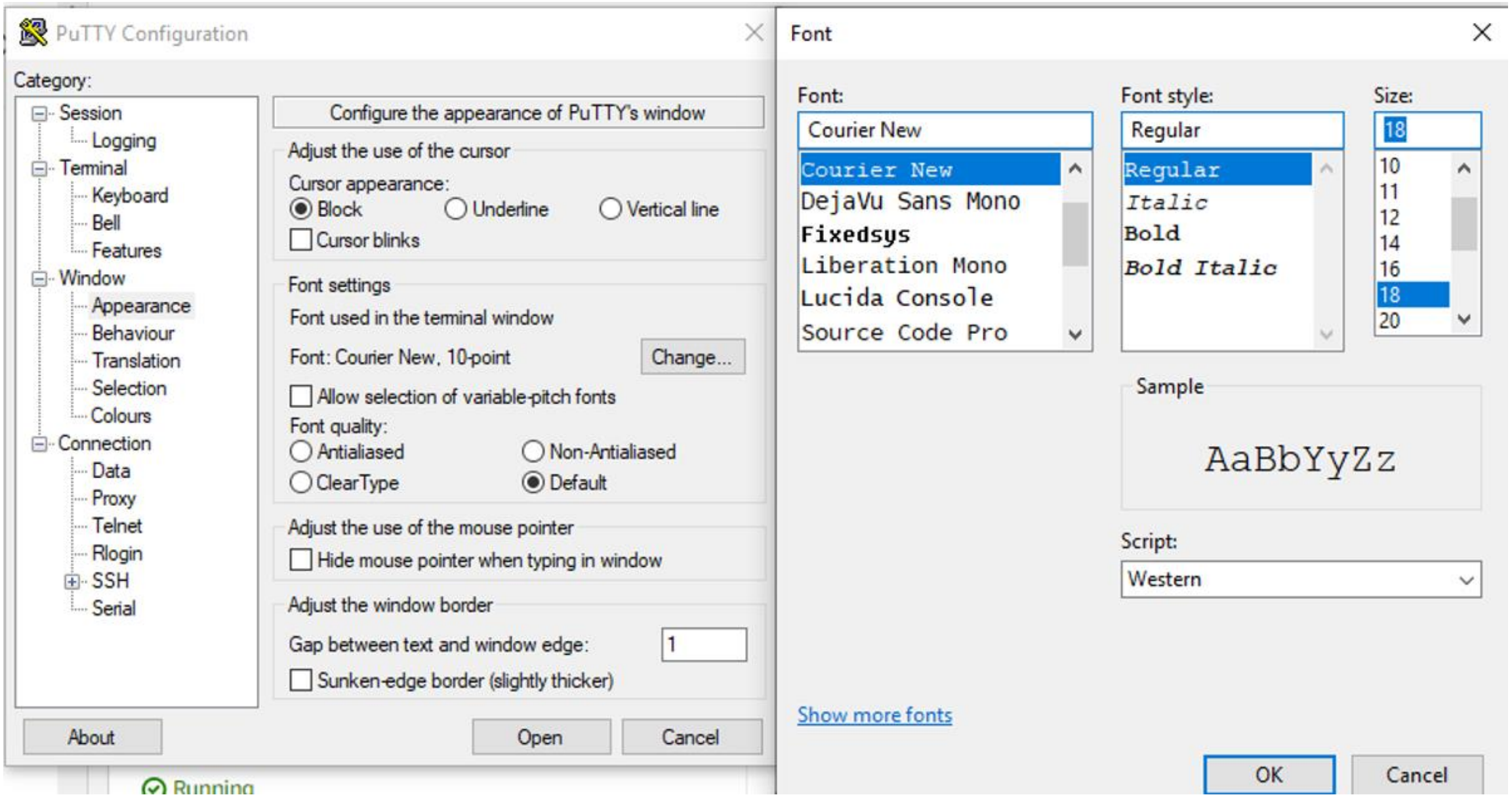
Access EC2 Instance Using Putty



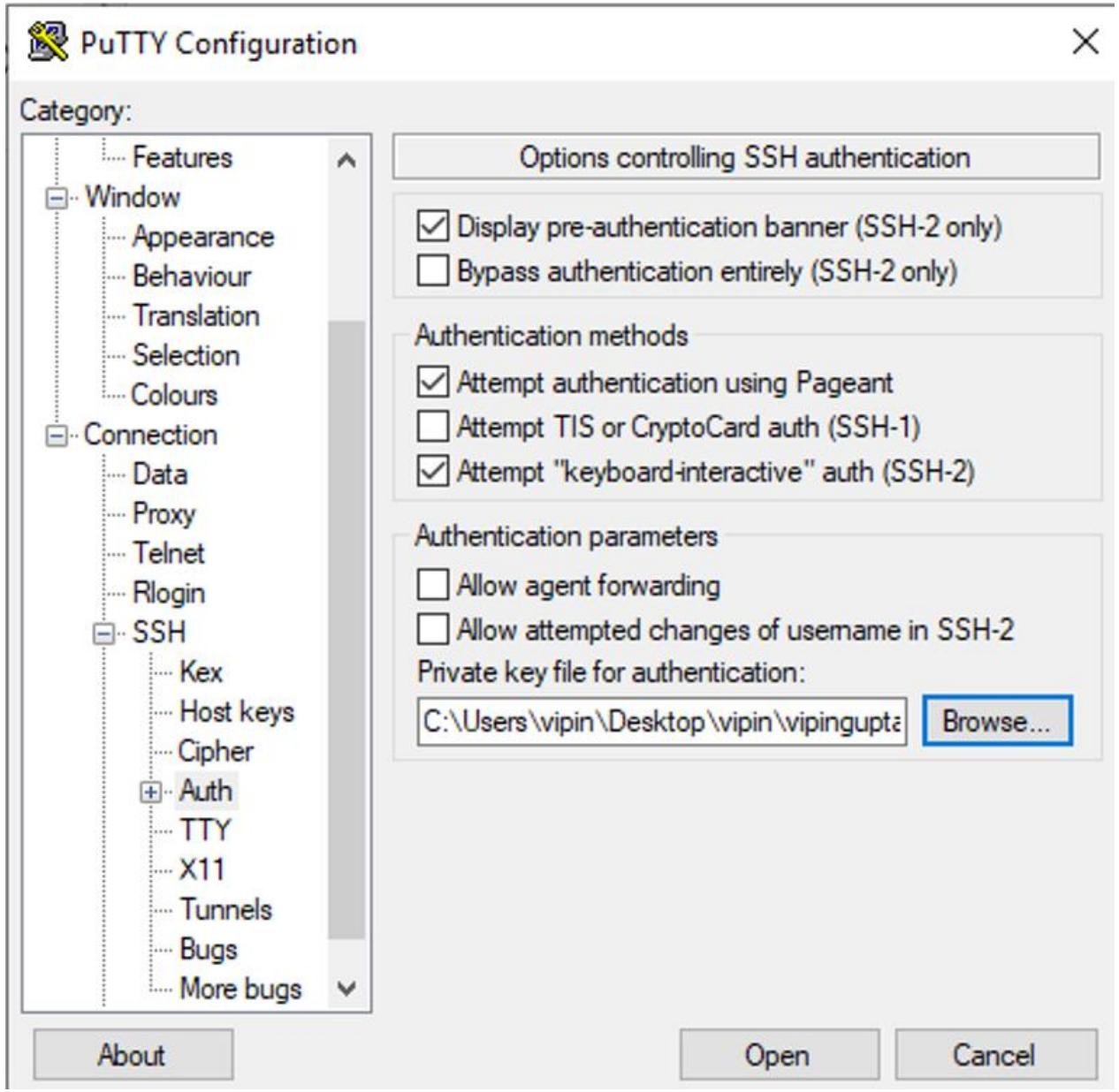
Access EC2 Instance Using Putty



Access EC2 Instance Using Putty



Access EC2 Instance Using Putty



Access EC2 Instance Using Putty

Install Apache Web Server On EC2 Instance

```
[ec2-user@ip-172-31-10-197 ~]$ sudo -s
[root@ip-172-31-10-197 ec2-user]#
[root@ip-172-31-10-197 ec2-user]# rpm -q httpd
package httpd is not installed
[root@ip-172-31-10-197 ec2-user]#
[root@ip-172-31-10-197 ec2-user]# yum -q install httpd
```

Install Apache Web Server On EC2 Instance

```
[root@ip-172-31-10-197 ec2-user]# yum -q install httpd

================================================================================
 Package                Arch    Version                 Repository    Size
================================================================================
Installing:
 httpd                  x86_64  2.4.46-1.amzn2          amzn2-core   1.3 M
Installing for dependencies:
 apr                    x86_64  1.6.3-5.amzn2.0.2       amzn2-core   118 k
 apr-util               x86_64  1.6.1-5.amzn2.0.2       amzn2-core    99 k
 apr-util-bdb           x86_64  1.6.1-5.amzn2.0.2       amzn2-core    19 k
 generic-logos-httpd    noarch  18.0.0-4.amzn2          amzn2-core    19 k
 httpd-filesystem       noarch  2.4.46-1.amzn2          amzn2-core    23 k
 httpd-tools            x86_64  2.4.46-1.amzn2          amzn2-core    87 k
 mailcap                noarch  2.1.41-2.amzn2          amzn2-core    31 k
 mod_http2              x86_64  1.15.14-2.amzn2         amzn2-core   147 k

Transaction Summary
================================================================================
Install  1 Package (+8 Dependent packages)

Is this ok [y/d/N]: y
[root@ip-172-31-10-197 ec2-user]# _
```

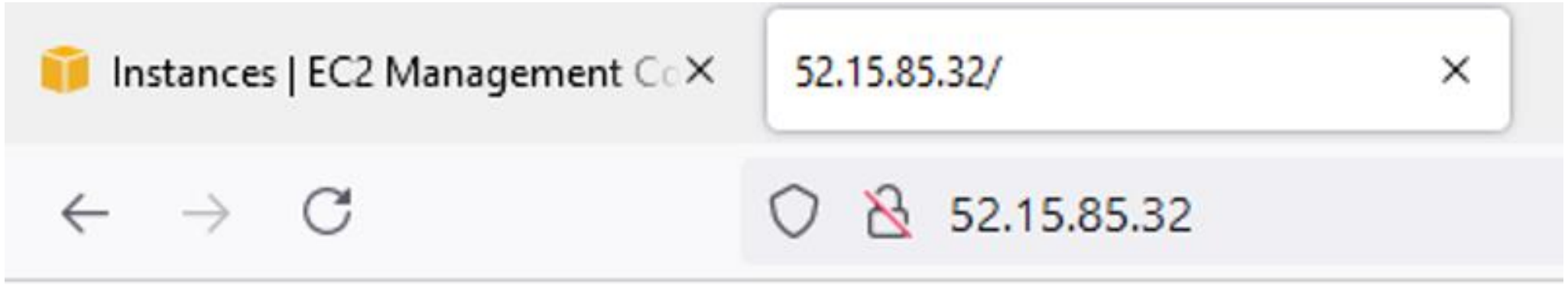
Create Web Page

```
[root@ip-172-31-10-197 ec2-user]# cd
[root@ip-172-31-10-197 ~]#
[root@ip-172-31-10-197 ~]# cd /var/www/html
[root@ip-172-31-10-197 html]#
[root@ip-172-31-10-197 html]# ls
[root@ip-172-31-10-197 html]#
[root@ip-172-31-10-197 html]# cat >index.html
Apache Web Server running in Cloud
[root@ip-172-31-10-197 html]#
```

Start Apache Web Server On EC2 Instance

```
[root@ip-172-31-10-197 html]#
[root@ip-172-31-10-197 html]# systemctl start httpd
[root@ip-172-31-10-197 html]#
[root@ip-172-31-10-197 html]# systemctl enable httpd
Created symlink from /etc/systemd/system/multi-user.target.wants/httpd.service
 to /usr/lib/systemd/system/httpd.service.
[root@ip-172-31-10-197 html]#
```

Verify


Instances | EC2 Management Co
52.15.85.32/
52.15.85.32
Apache Web Server running in Cloud