

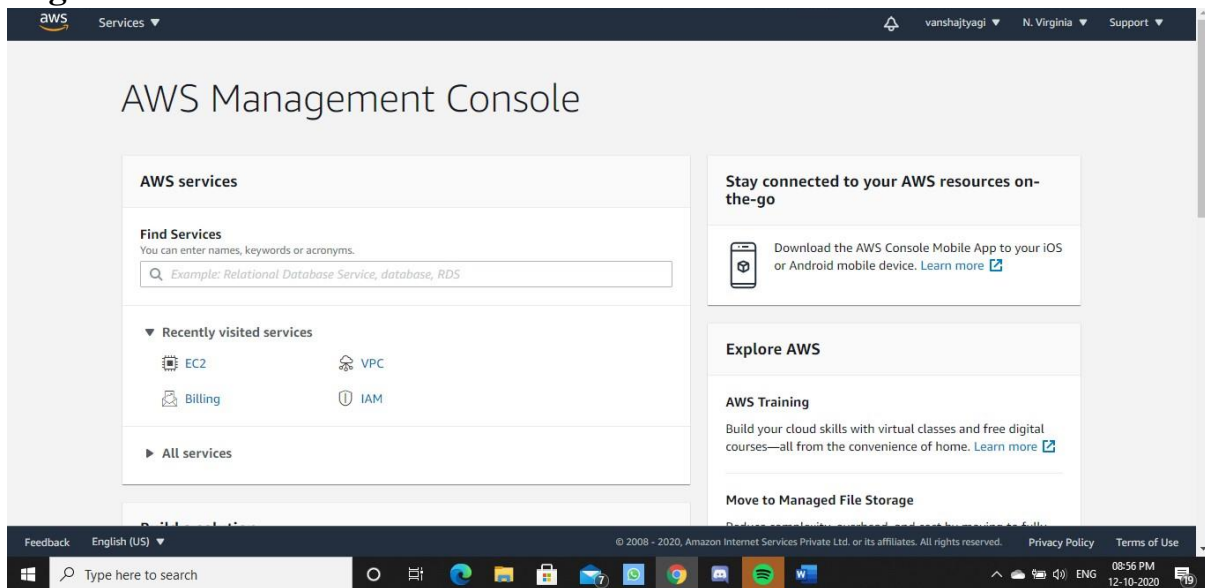
**1. Overview of AWS:** Amazon Web Services is a subsidiary of Amazon providing on-demand cloud computing platforms and APIs to individuals, companies, and governments, on a metered pay-as-you-go basis.

## **2. Tasks to be done:**

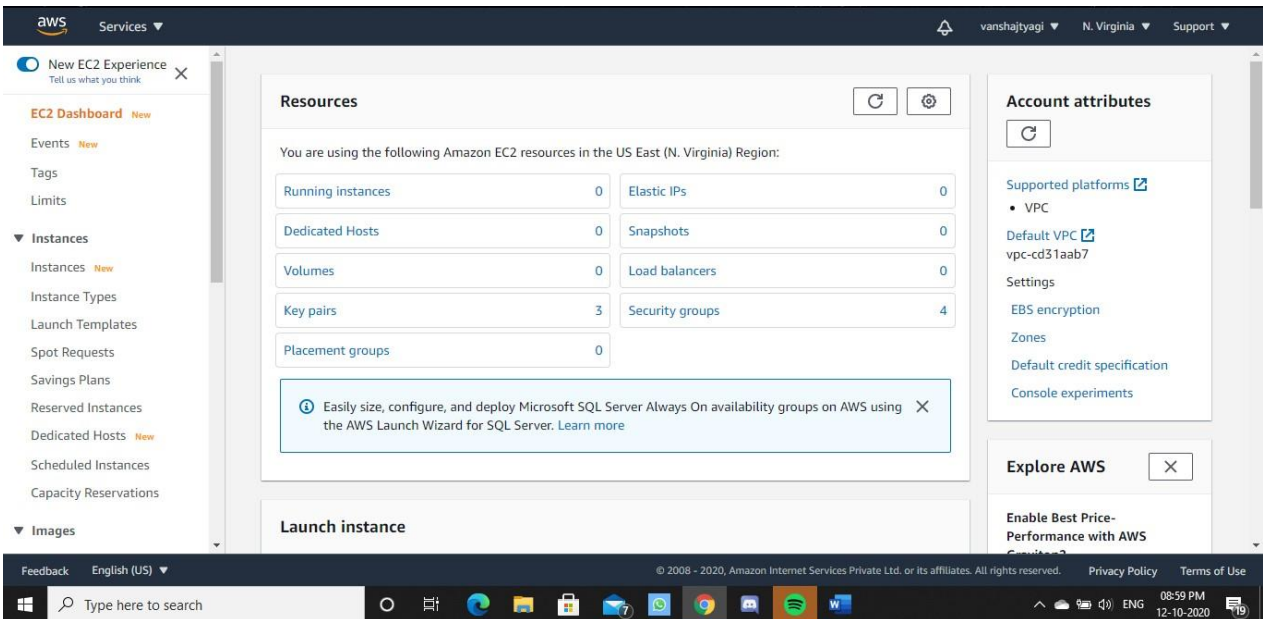
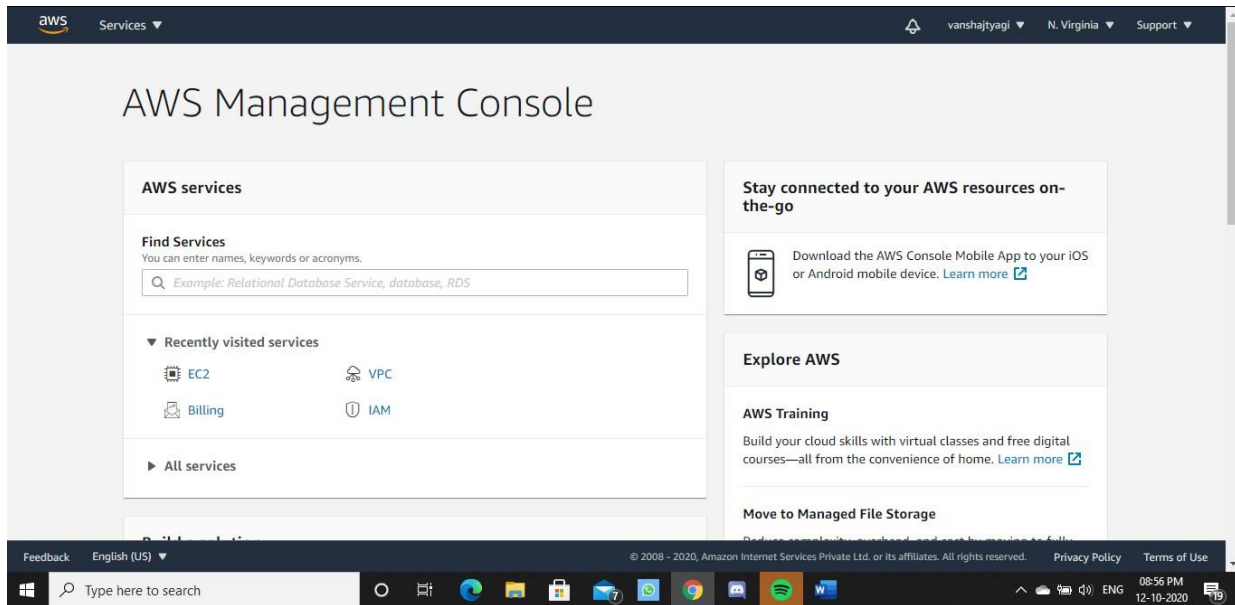
- In AWS , launch and connect EC2 service with SSH

## **3. Steps for practical: (Mention the steps for each and every task)**

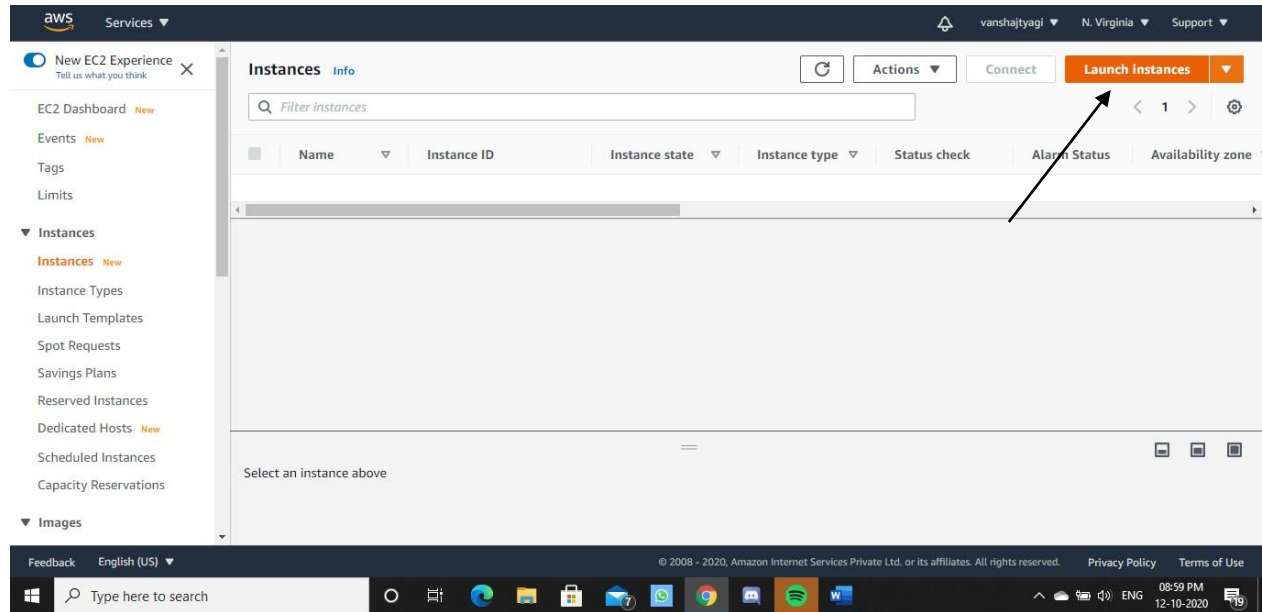
### **1. Login to AWS console**



### **2. Open EC2 service and start creating the instance by clicking on instance(running).**



### 3. Click on instance to create a new one.



### 4. Click on Launch instances and select the Amazon Machine Image

aws Services

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

Step 1: Choose an Amazon Machine Image (AMI)

Cancel and Exit

Search by Systems Manager parameter

Quick Start

My AMIs

AWS Marketplace

Community AMIs

☒ Free tier only

**Amazon Linux 2 AMI (HVM), SSD Volume Type** - ami-0947d2ba12ee1ff75 (64-bit x86) / ami-007a607c4abd192db (64-bit Arm) **Select**

Amazon Linux  
Free tier eligible

Amazon Linux 2 comes with five years support. It provides Linux kernel 4.14 tuned for optimal performance on Amazon EC2, systemd 219, GCC 7.3, Glibc 2.26, Binutils 2.29.1, and the latest software packages through extras.

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

**Amazon Linux AMI 2018.03.0 (HVM), SSD Volume Type** - ami-032930428bf1abbff **Select**

Amazon Linux  
Free tier eligible

The Amazon Linux AMI is an EBS-backed, AWS-supported image. The default image includes AWS command line tools, Python, Ruby, Perl, and Java. The repositories include Docker, PHP, MySQL, PostgreSQL, and other packages.

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

64-bit (x86)

**Red Hat Enterprise Linux 8 (HVM), SSD Volume Type** - ami-098f16afa9edf40be (64-bit x86) / ami-029ba835ddd43c34f **Select**

Red Hat

64-bit (x86)

Feedback English (US)

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Type here to search

08:59 PM 12-10-2020

## 5. Choose the instance type and click on next.

aws Services

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

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 types Current generation Show/Hide Columns

Currently selected: t2.micro (Variable ECUs, 1 vCPUs, 2.5 GHz, Intel Xeon Family, 1 GiB memory, EBS only)

	Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance	IPv6 Support
<input type="checkbox"/>	General purpose	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
<input checked="" type="checkbox"/>	General purpose	t2.micro Free tier eligible	1	1	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.small	1	2	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.medium	2	4	EBS only	-	Low to Moderate	Yes

Cancel Previous Review and Launch Next: Configure Instance Details

Feedback English (US)

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09:06 PM 12-10-2020

## 6. Configure instance details and click on next.

console.aws.amazon.com/ec2/v2/home?region=us-east-1#LaunchInstanceWizard:

Services vanshajtyagi N. Virginia Support

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 1 Launch into Auto Scaling Group

Purchasing option ☐ Request Spot instances

Network vpc-cd31aab7 (default) Create new VPC

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

Auto-assign Public IP Use subnet setting (Enable)

Placement group ☐ Add instance to placement group

Capacity Reservation Open

Domain join directory No directory Create new directory

IAM role None Create new IAM role

Cancel Previous Review and Launch Next: Add Storage

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Type here to search

## 7. Add storage and click on next.

aws Services vanshajtyagi N. Virginia Support

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-0299d083f0ce6cd12	8	General Purpose SSD (gp2)	100 / 3000	N/A	<input checked="" type="checkbox"/>	Not Encrypt

Add New Volume

Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage. [Learn more](#) about free usage tier eligibility and usage restrictions.

Cancel Previous Review and Launch Next: Add Tags

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aws

Services ▾

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Support ▾

1. Choose AMI

2. Choose Instance Type

3. Configure Instance

4. Add Storage

5. Add Tags

6. Configure Security Group

7. Review

### Step 6: Configure Security Group

A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server and allow Internet traffic to reach your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below. [Learn more](#) about Amazon EC2 security groups.

**Assign a security group:** ☒ Create a **new** security group  
☐ Select an **existing** security group

**Security group name:**

**Description:**

Type <small>i</small>	Protocol <small>i</small>	Port Range <small>i</small>	Source <small>i</small>	Description <small>i</small>
<div>SSH ▾</div>	<div>TCP</div>	<div>22</div>	<div>Custom ▾</div> <div>0.0.0.0/0</div>	<div>e.g. SSH for Admin Desktop</div> <div>✕</div>

Add Rule

⚠

**Warning**  
Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

Cancel

Previous

Review and Launch

Feedback

English (US) ▾

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Windows Taskbar

Type here to search

Taskbar icons: File Explorer, Mail, Edge, Chrome, Spotify, Word

System tray: Network, Volume, Date/Time (09:08 PM 12-10-2020), ENG



## 10. Review the instance details , edit if necessary and click on Launch.

console.aws.amazon.com/ec2/v2/home?region=us-east-1#LaunchInstanceWizard:

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

### Step 7: Review Instance Launch

AMI Details [Edit AMI](#)

**Amazon Linux 2 AMI (HVM), SSD Volume Type - ami-0947d2ba12ee1ff75**

Free tier eligible

Amazon Linux 2 comes with five years support. It provides Linux kernel 4.14 tuned for optimal performance on Amazon EC2, systemd 219, GCC 7.3, Glibc 2.26, Binutils 2.29.1, and the latest software packages through extras.

Root Device Type: ebs Virtualization type: hvm

Instance Type [Edit instance type](#)

Instance Type	ECUs	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance
t2.micro	Variable	1	1	EBS only	-	Low to Moderate

Security Groups [Edit security groups](#)

Security group name: launch-wizard-3

Description: launch-wizard-3 created 2020-10-12T21:07:21.238+05:30

[Cancel](#) [Previous](#) [Launch](#)

## 11. Create a new key pair and download the key for further use .

aws Services [vanshajtyagi](#) [N. Virginia](#) [Support](#)

### Step 7: Review Instance Launch

AMI Details [Edit AMI](#)

**Amazon Linux 2 AMI (HVM), SSD Volume Type - ami-0947d2ba12ee1ff75**

Free tier eligible

Amazon Linux 2 comes with five years support. It provides Linux kernel 4.14 tuned for optimal performance on Amazon EC2, systemd 219, GCC 7.3, Glibc 2.26, Binutils 2.29.1, and the latest software packages through extras.

Root Device Type: ebs Virtualization type: hvm

Instance Type [Edit instance type](#)

Instance Type	ECUs	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance
t2.micro	Variable	1	1	EBS only	-	Low to Moderate

Security Groups [Edit security groups](#)

Security group name: launch-wizard-3

Description: launch-wizard-3 created 2020-10-12T21:07:21.238+05:30

[Cancel](#) [Previous](#) [Launch](#)

#### Select an existing key pair or create a new key pair

A key pair consists of a **public key** that AWS stores, and a **private key file** that you store. Together, they allow you to connect to your instance securely. For Windows AMIs, the private key file is required to obtain the password used to log into your instance. For Linux AMIs, the private key file allows you to securely SSH into your instance.

Note: The selected key pair will be added to the set of keys authorized for this instance. Learn more about [removing existing key pairs from a public AMI](#).

Create a new key pair

Key pair name

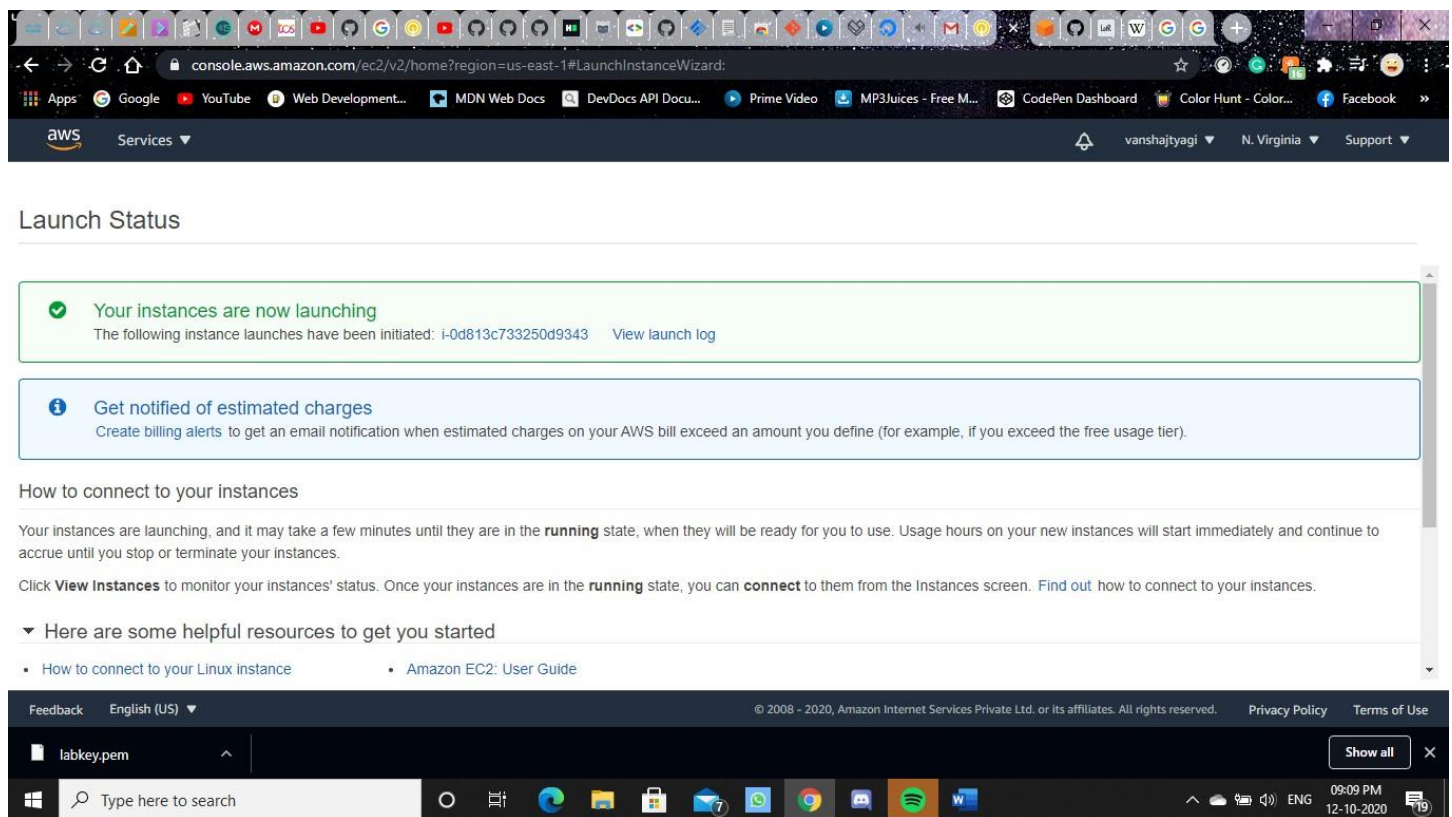
labkey

[Download Key Pair](#)

You have to download the **private key file** (\*.pem file) before you can continue. **Store it in a secure and accessible location.** You will not be able to download the file again after it's created.

[Cancel](#) [Launch Instances](#)

## 12. The instance is successfully launched .



Launch Status

**Your instances are now launching**  
The following instance launches have been initiated: i-0d813c733250d9343 [View launch log](#)

**Get notified of estimated charges**  
Create billing alerts to get an email notification when estimated charges on your AWS bill exceed an amount you define (for example, if you exceed the free usage tier).

How to connect to your instances

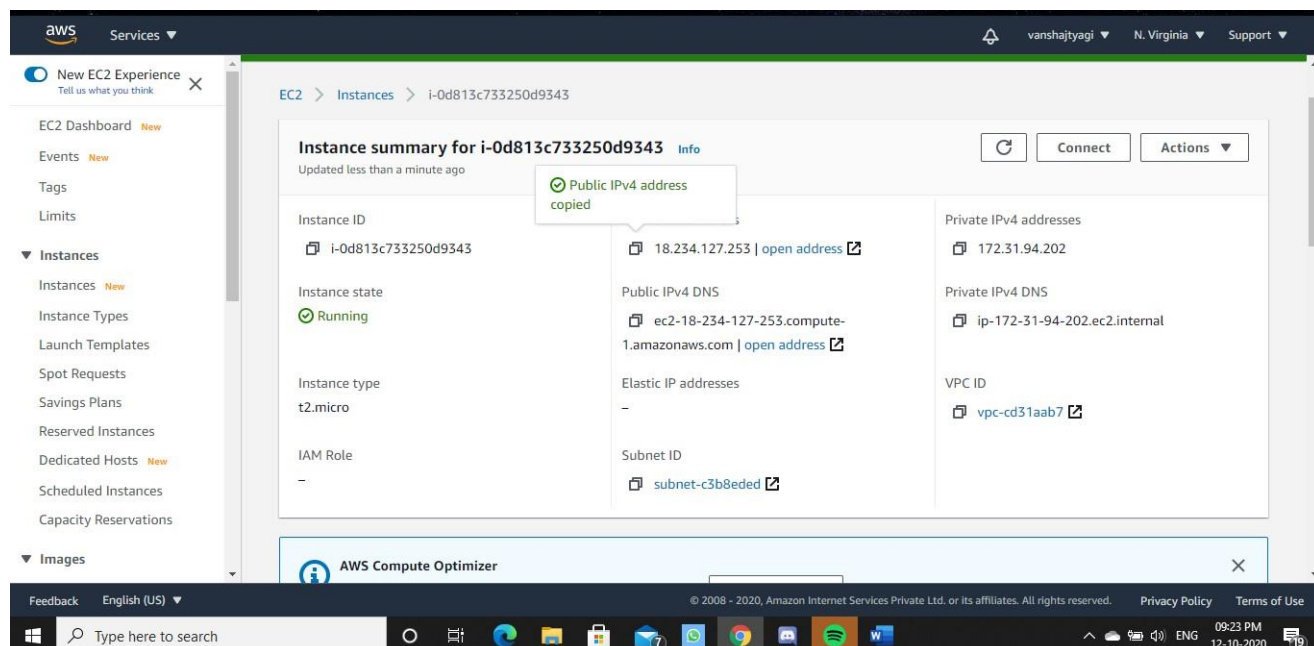
Your instances are launching, and it may take a few minutes until they are in the **running** state, when they will be ready for you to use. Usage hours on your new instances will start immediately and continue to accrue until you stop or terminate your instances.

Click **View Instances** to monitor your instances' status. Once your instances are in the **running** state, you can **connect** to them from the Instances screen. [Find out](#) how to connect to your instances.

Here are some helpful resources to get you started

- [How to connect to your Linux instance](#)
- [Amazon EC2: User Guide](#)

## 13. Now we need to connect it with terminal to work on this. So we will the copy the public IPv4 address .



Instance summary for i-0d813c733250d9343

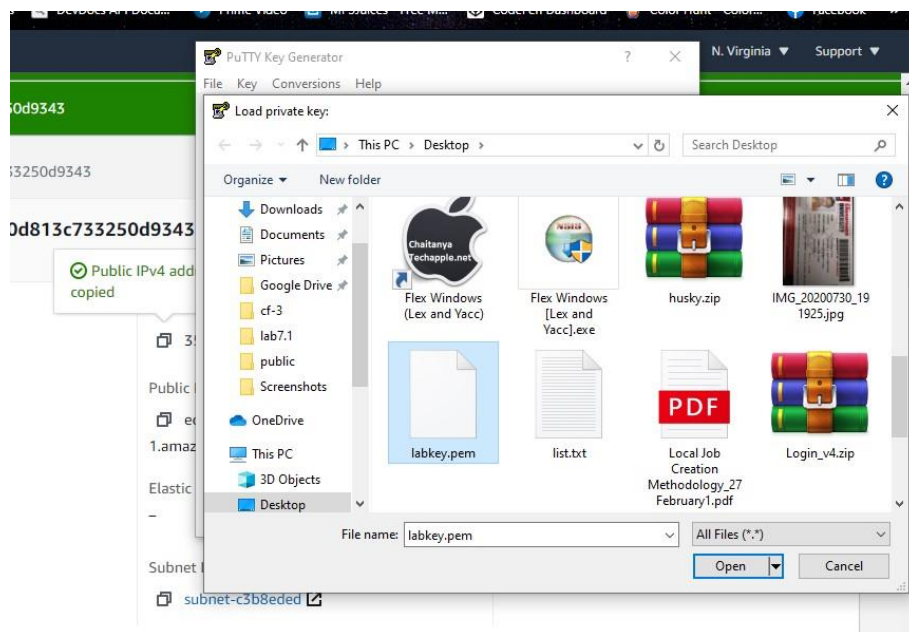
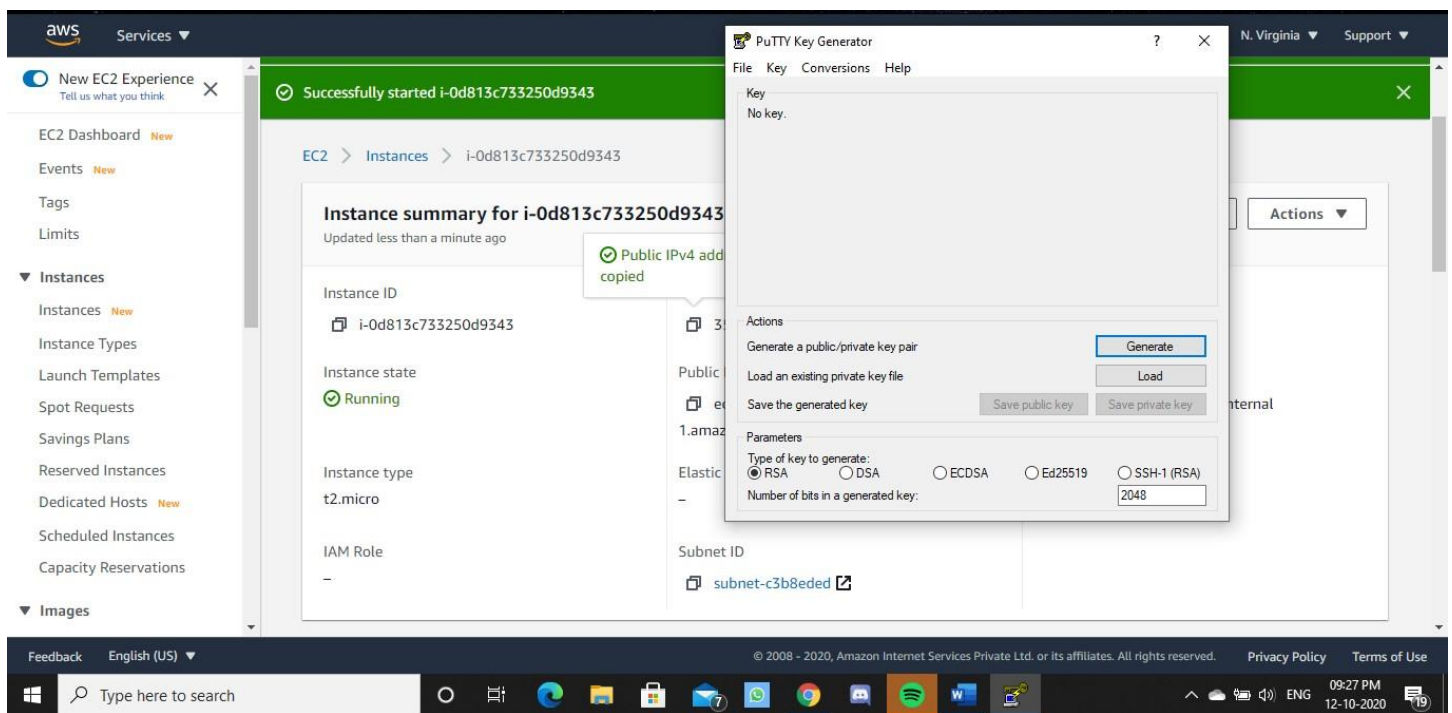
Updated less than a minute ago

**Public IPv4 address copied**

Instance ID	i-0d813c733250d9343	Public IPv4 address	18.234.127.253   <a href="#">open address</a>	Private IPv4 addresses	172.31.94.202
Instance state	Running	Public IPv4 DNS	ec2-18-234-127-253.compute-1.amazonaws.com   <a href="#">open address</a>	Private IPv4 DNS	ip-172-31-94-202.ec2.internal
Instance type	t2.micro	Elastic IP addresses	-	VPC ID	vpc-cd31aab7
IAM Role	-	Subnet ID	subnet-c3b8eded		

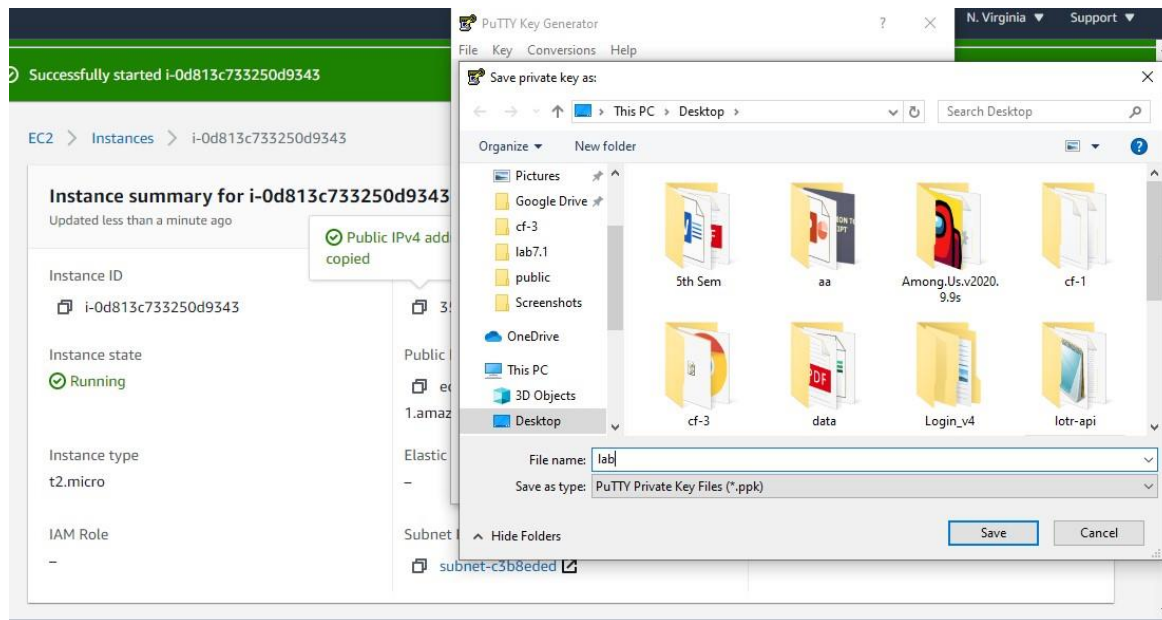
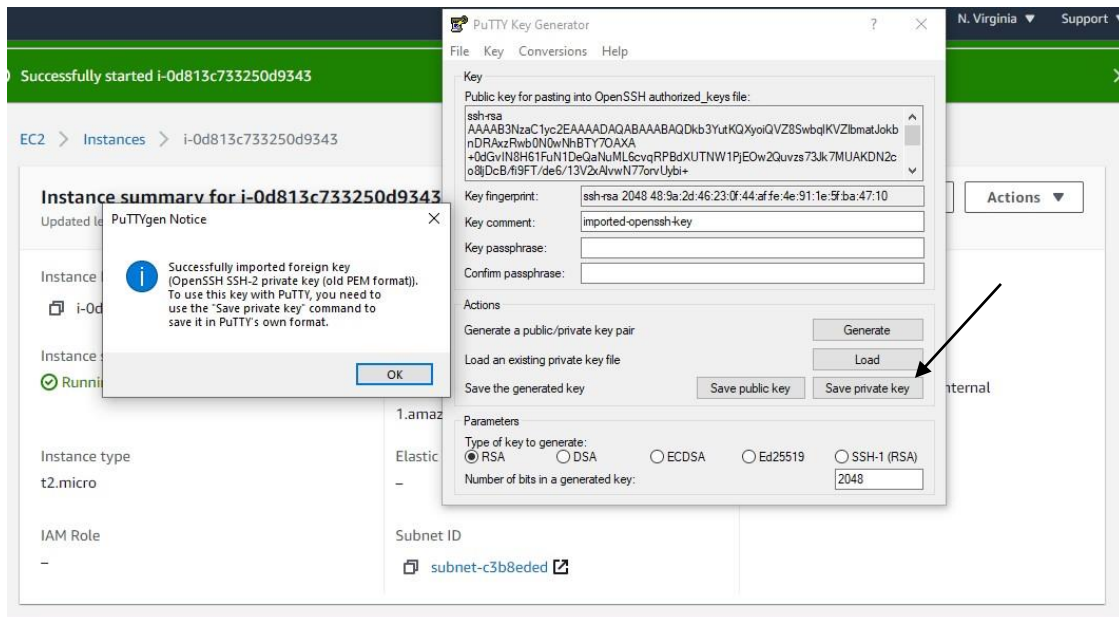
## 14. Open puttyGen and load the key which we have downloaded earlier.



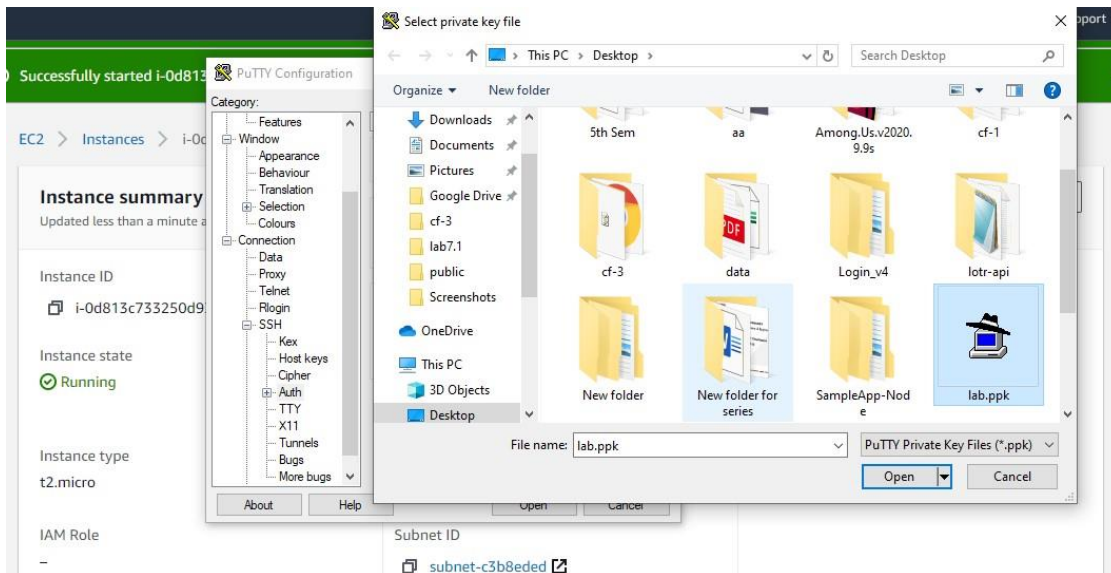
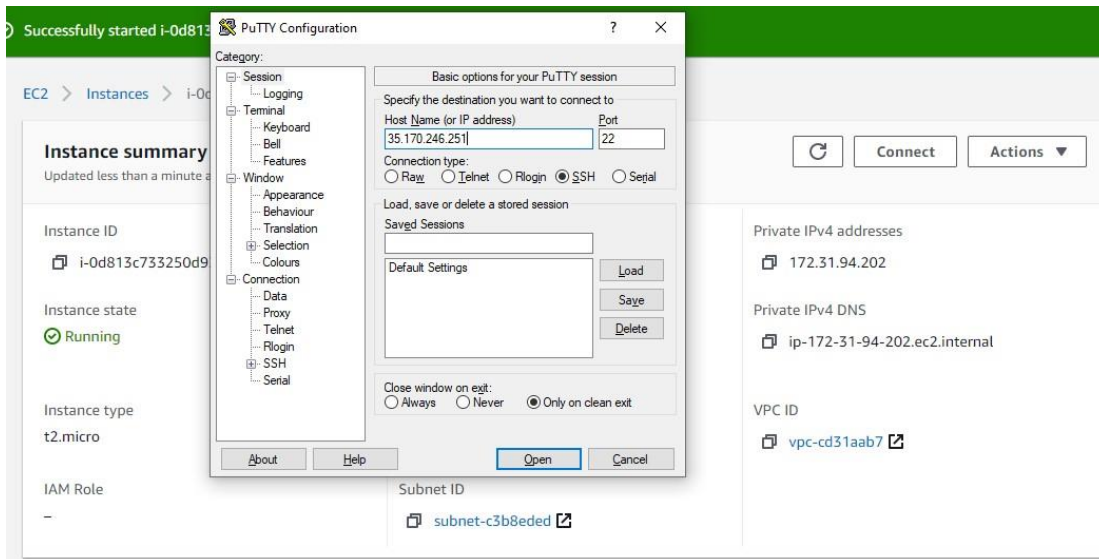


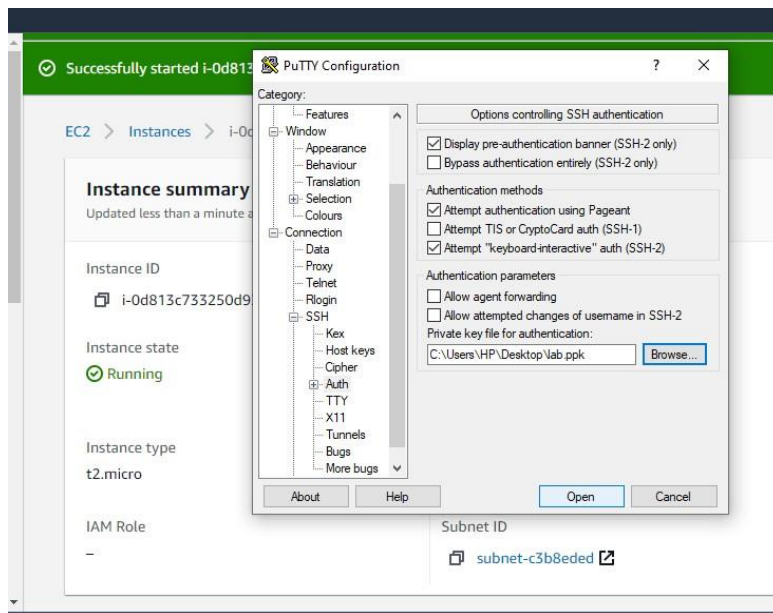
**Private key**

**open the key and save it as**



## 15. Add public IPv4 in hostname of putty



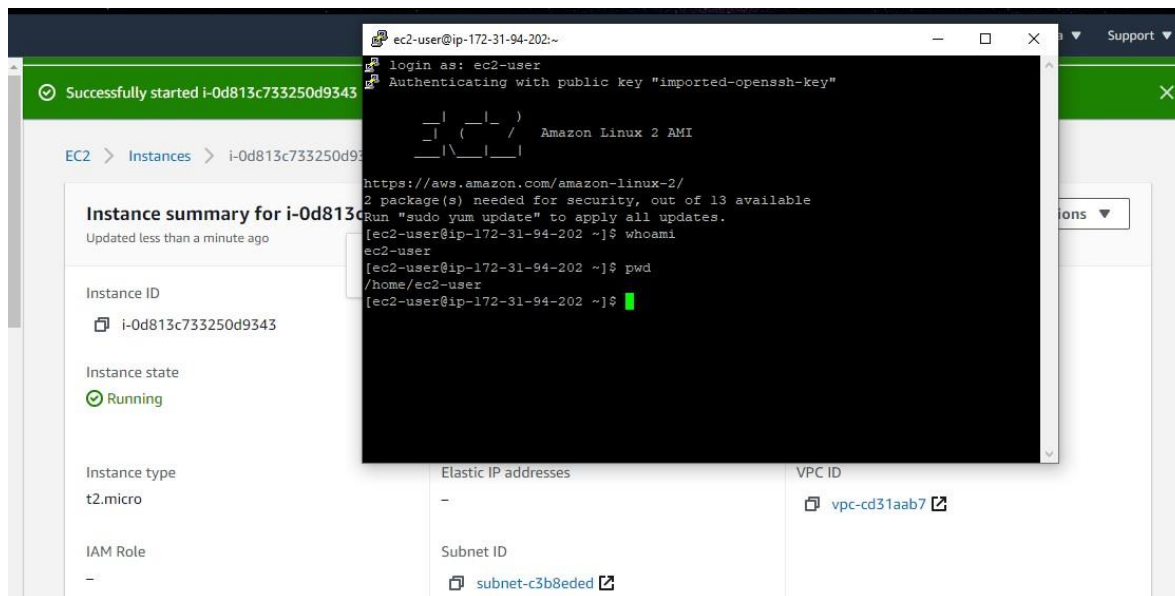


**Goto connection > SSH > Auth > and**

**browse the saved private key from puttygen and select open , which will open our instance terminal.**

```
ec2-user@ip-172-31-94-202:~  
login as: ec2-user  
Authenticating with public key "imported-openssh-key"  
  
 _ _ | _ _ |  
 _ | ( _ _ /  Amazon Linux 2 AMI  
 _ | \ _ _ |  
  
https://aws.amazon.com/amazon-linux-2/  
2 package(s) needed for security, out of 13 available  
Run "sudo yum update" to apply all updates.  
[ec2-user@ip-172-31-94-202 ~]$
```

**16. This will work as terminal for our instance and it will be same as linux(as we chose linux AMI) , we can see that by typing some linux command as whoami, pwd.**



## 6. Result:

- We successfully launched and connected EC2 with SSH.