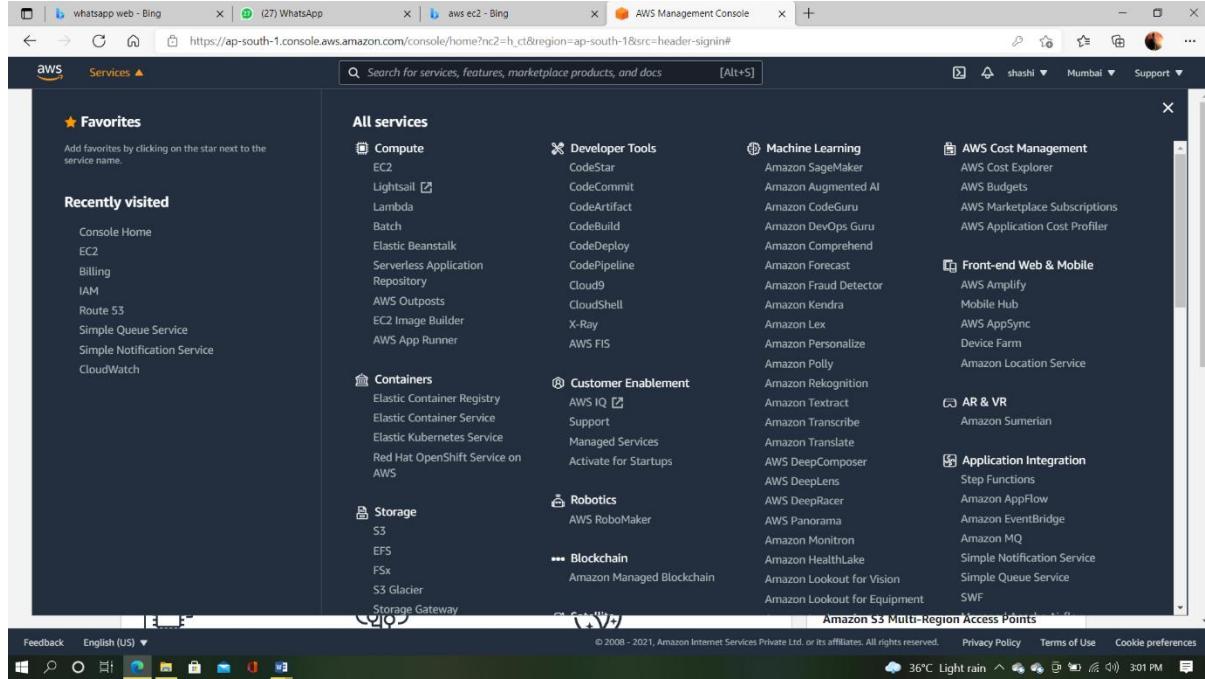


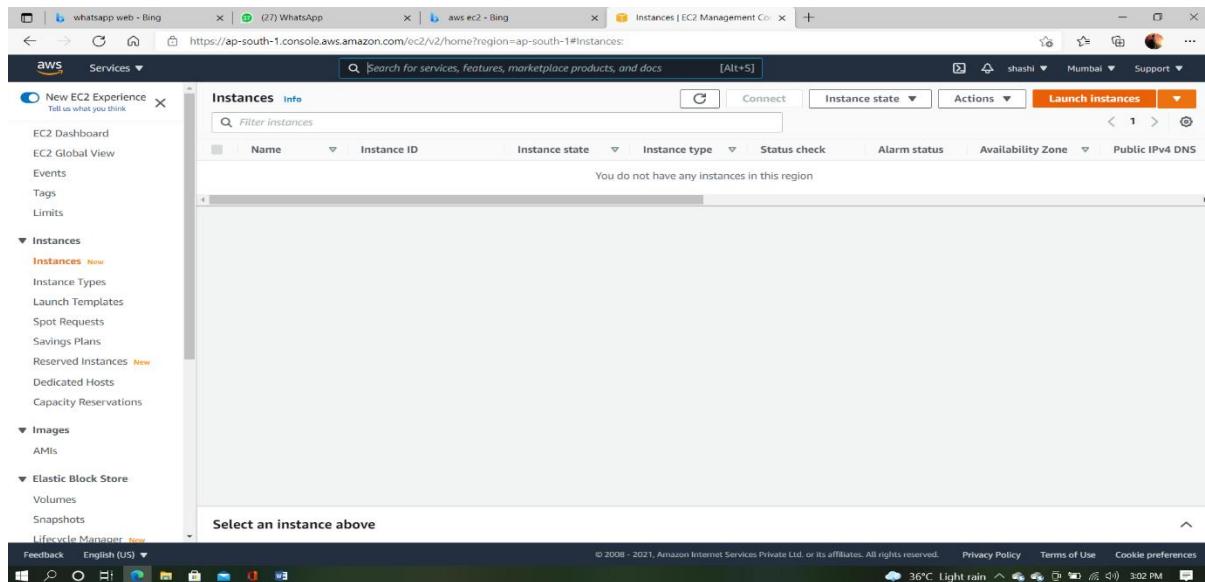
AWS EC2 (Elastic Computing Cloud)

Go to:

Service -> Compute -> EC2



Instances -> Click on Launch Instances(For creating a Instance)



Step 1: Choose an Amazon Machine Image (AMI)

Select the OS which you want

Step 1: Choose an Amazon Machine Image (AMI)

AMI Name	Description	Select Button
Microsoft Windows Server 2016 with SQL Server 2019 Standard - ami-001786bec6463a292	Microsoft Windows 2016 Datacenter edition, Microsoft SQL Server 2019 Standard. [English] Root device type: ebs Virtualization type: hvm ENA Enabled: Yes	Select
Microsoft Windows Server 2016 with SQL Server 2019 Enterprise - ami-00d8c73759945eb2d	Microsoft Windows 2016 Datacenter edition, Microsoft SQL Server 2019 Enterprise. [English] Root device type: ebs Virtualization type: hvm ENA Enabled: Yes	Select
Microsoft Windows Server 2012 R2 Base - ami-06a5b893a4275d7d4	Microsoft Windows 2012 R2 Standard edition with 64-bit architecture. [English] Root device type: ebs Virtualization type: hvm ENA Enabled: Yes	Select
Microsoft Windows Server 2012 R2 with SQL Server 2016 Standard - ami-036dcab0b93f11e67	Microsoft Windows Server 2012 R2 Standard edition, 64-bit architecture, Microsoft SQL Server 2016 Standard edition. [English] Root device type: ebs Virtualization type: hvm ENA Enabled: Yes	Select
Microsoft Windows Server 2012 R2 with SQL Server 2016 Enterprise - ami-007e2bf6873f17695	Microsoft Windows Server 2012 R2 Standard edition, 64-bit architecture, Microsoft SQL Server 2016 Enterprise edition. [English] Root device type: ebs Virtualization type: hvm ENA Enabled: Yes	Select



AWS provides 6 different OS:

- Windows
- Amazon Linux
- Suse
- Redhat
- Ubuntu
- Debain

Now creating a Windows Instance.

Step 2: Choose an Instance Type

This phase is used to select the RAM required

Step 2: Choose an Instance Type
You have 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 ShowHide 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
<input type="checkbox"/>	t2	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
<input checked="" type="checkbox"/>	t2	t2.micro <small>Free tier eligible</small>	1	1	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	t2	t2.small	1	2	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	t2	t2.medium	2	4	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	t2	t2.large	2	8	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	t2	t2.xlarge	4	16	EBS only	-	Moderate	Yes
<input type="checkbox"/>	t2	t2.2xlarge	8	32	EBS only	-	Moderate	Yes
<input type="checkbox"/>	t3	t3.nano	2	0.5	EBS only	Yes	Up to 5 Gigabit	Yes
<input type="checkbox"/>	t3	t3.micro	2	1	EBS only	Yes	Up to 5 Gigabit	Yes

Cancel Previous Review and Launch Next: Configure Instance Details

Once selected, click on Next: Configure Instance Details.

Step 3: Configure Instance Details

Step 3: Configure Instance Details

Network: **vpc-368a4c5d (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

Shutdown behavior: Stop
Stop - Hibernate behavior: Enable hibernation as an additional stop behavior
Enable termination protection: Protect against accidental termination
Monitoring: Enable CloudWatch detailed monitoring Additional charges apply.
Tenancy: Shared - Run a shared hardware instance Additional charges will apply for dedicated tenancy.

Credit specification: Unlimited

Cancel Previous Review and Launch Next: Add Storage

Now go with Default VPC

Click Next: Add Storage

Step 4: Add Storage

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/sda1	snap-01338bfcfeb446fb1	30	General Purpose SSD (gp2)	100 / 3000	N/A	<input checked="" type="checkbox"/>	Not Encrypted

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.](#)

By Default AWS gives 30 GB for Windows and 8 Gb for Linux of EBS, if required it can be increased but paid

Click Next: Add tags

Step 5: Add Tags

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		Windows		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Add another tag (Up to 50 tags maximum)

Tag is used to easily identify our instance by giving some name.

Click on Add tag

Click on Next: Configure Security Group

Step 6: Configure Security Group

In this Port Range and Source will be defined

Port Range – Through which the service is accessible

Source – Which IPs can enter

RDP is used for Remote Desktop

HTTP & HTTPS is application hosting

SSH is used for Linux machine

Once details given, click on Review and Launch

Step 7: Review Instance Launch

In this page you can review the settings you have given.

Once reviewed, Click Launch

Step 8:

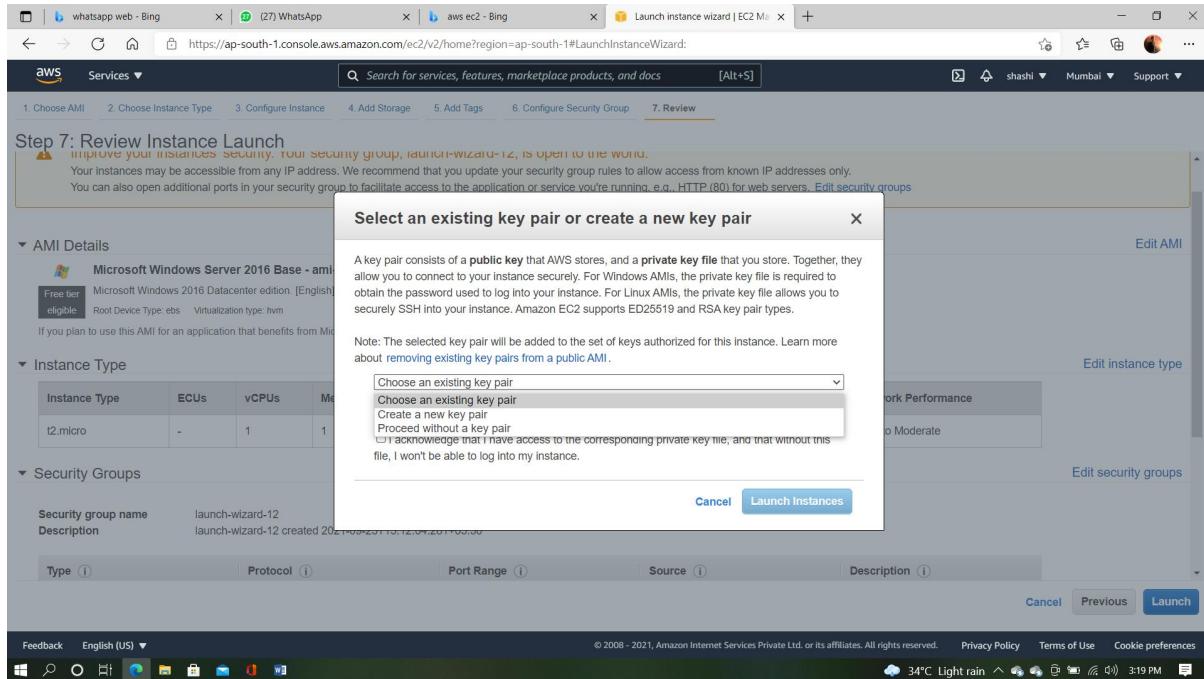
A window will pop up

Select an existing key pair or create a new key pair

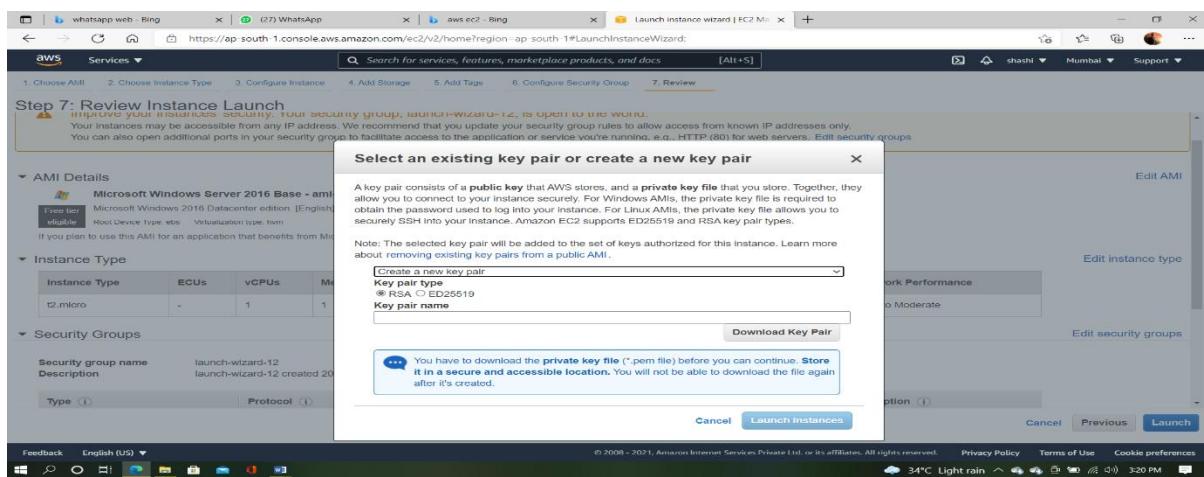
In this you can specify the authentication

Three options are available

- Choose an existing key pair
- Create a new key pair
- Proceed without a key pair



Now, selecting Create a new key pair



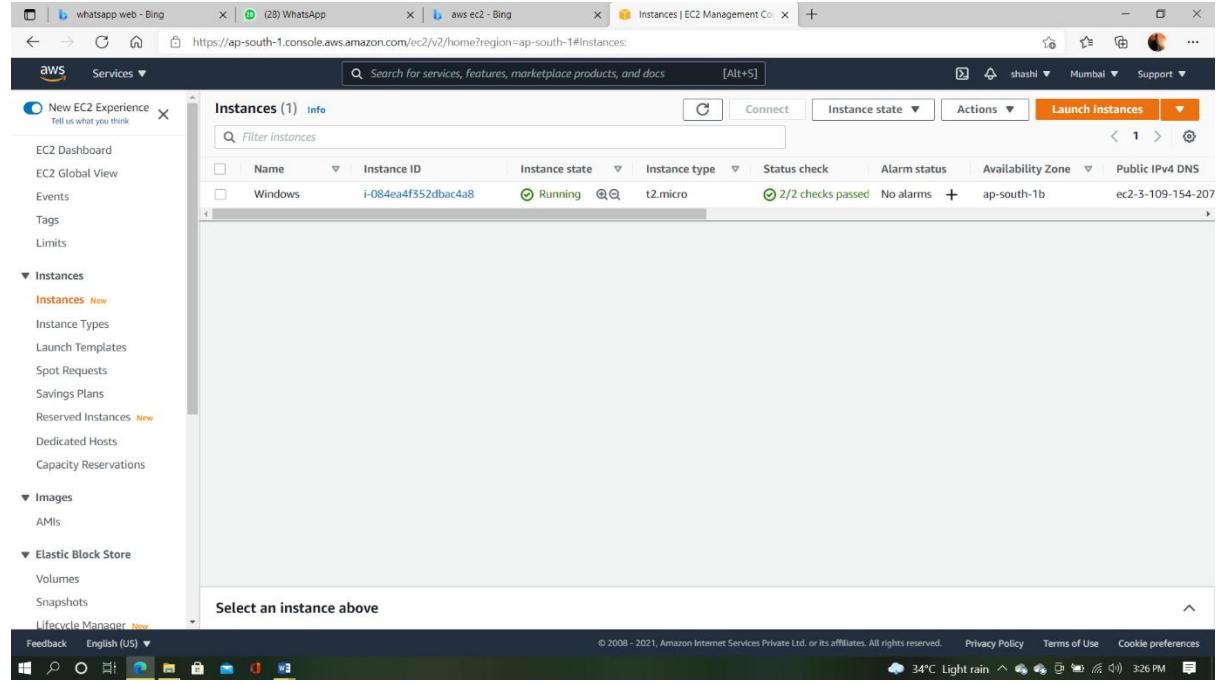
Key pair type : RSA

Key pair name : Give some name which you can easily identify and Click Download Key Pair

a .pem file will be downloaded
(pem – Privacy Enhanced Mail)

Click on launch Instance

Instance will be
created



The screenshot shows the AWS EC2 Management Console interface. On the left, there's a navigation sidebar with options like EC2 Dashboard, Events, Tags, and Instances (selected). Under Instances, it shows 'Instances (1) info'. The main pane displays a table with one row:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
Windows	i-084ea4f552dbac4a8	Running	t2.micro	2/2 checks passed	No alarms	ap-south-1b	ec2-5-109-154-207

Below the table, a message says 'Select an instance above'. At the bottom of the screen, there's a Windows taskbar with icons for Start, Search, Task View, File Explorer, Mail, and Edge browser.

Wait until Instance state is set to Running and Status check is set to 2/2 Check passed

To login to the instance we need:

1. Public IP Address
2. User Name
3. Password

To get the above details, Click on the Instance ID

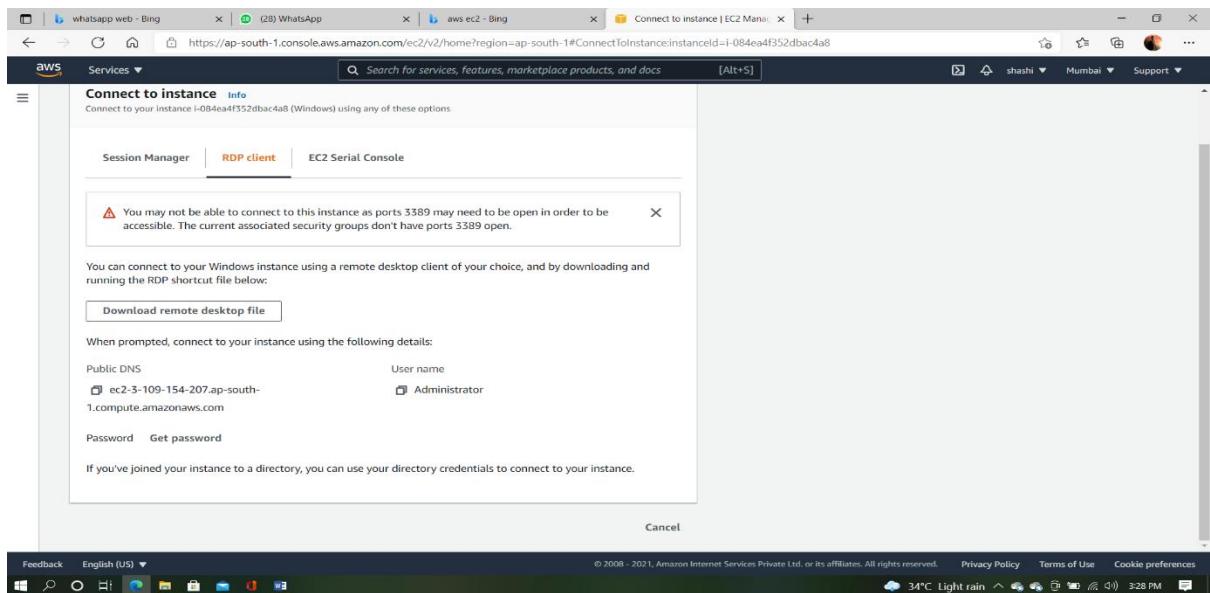
The screenshot shows the AWS EC2 Instance Details page. The instance ID is i-084ea4f352dbac4a8 (Windows). The Public IPv4 address is 3.109.154.207. The instance state is Running. The instance type is t2.micro. The VPC ID is vpc-368a4c5d. The Subnet ID is subnet-ce643982. The AMI ID is ami-004ca3dee57925c03. Monitoring is disabled.

Note the Public IPv4 address , then click Connect

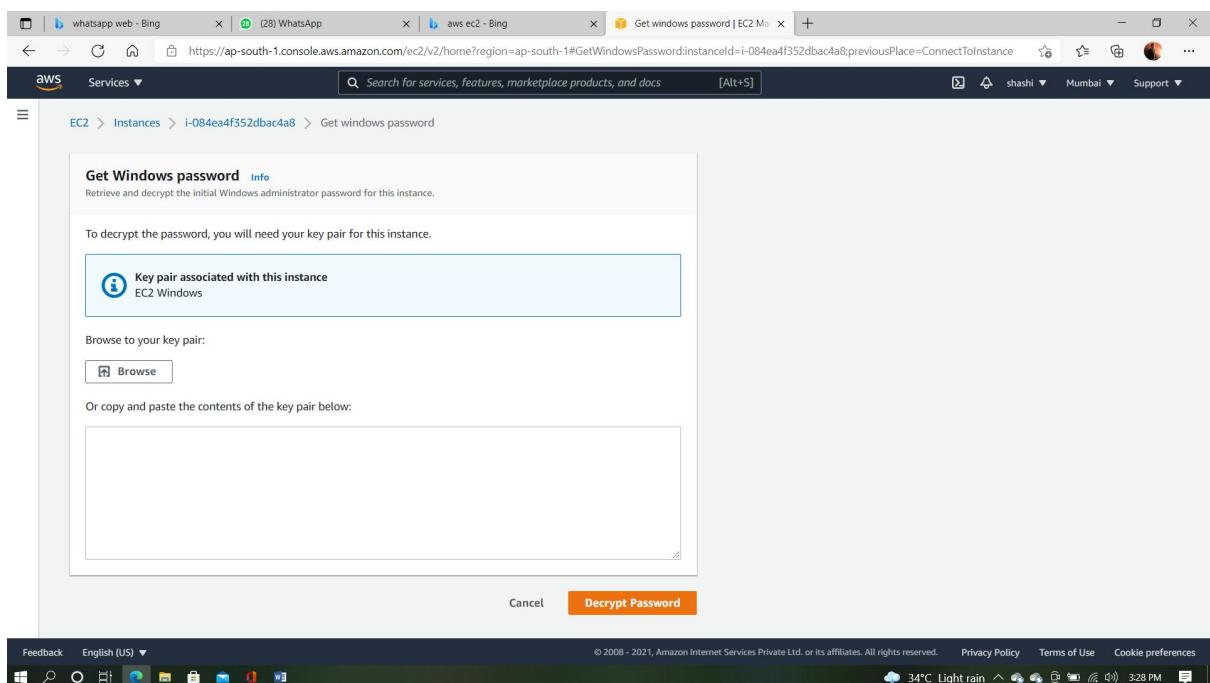
Connect to instance page will be opened

The screenshot shows the AWS Connect to instance page. The instance ID is i-084ea4f352dbac4a8 (Windows). The RDP client tab is selected. A warning message states: "You may not be able to connect to this instance as ports 3389 may need to be open in order to be accessible. The current associated security groups don't have ports 3389 open." Below this, it says: "You can connect to your Windows instance using a remote desktop client of your choice, and by downloading and running the RDP shortcut file below." There is a "Download remote desktop file" button. It also shows the Public DNS (ec2-3-109-154-207.ap-south-1.compute.amazonaws.com) and User name (Administrator).

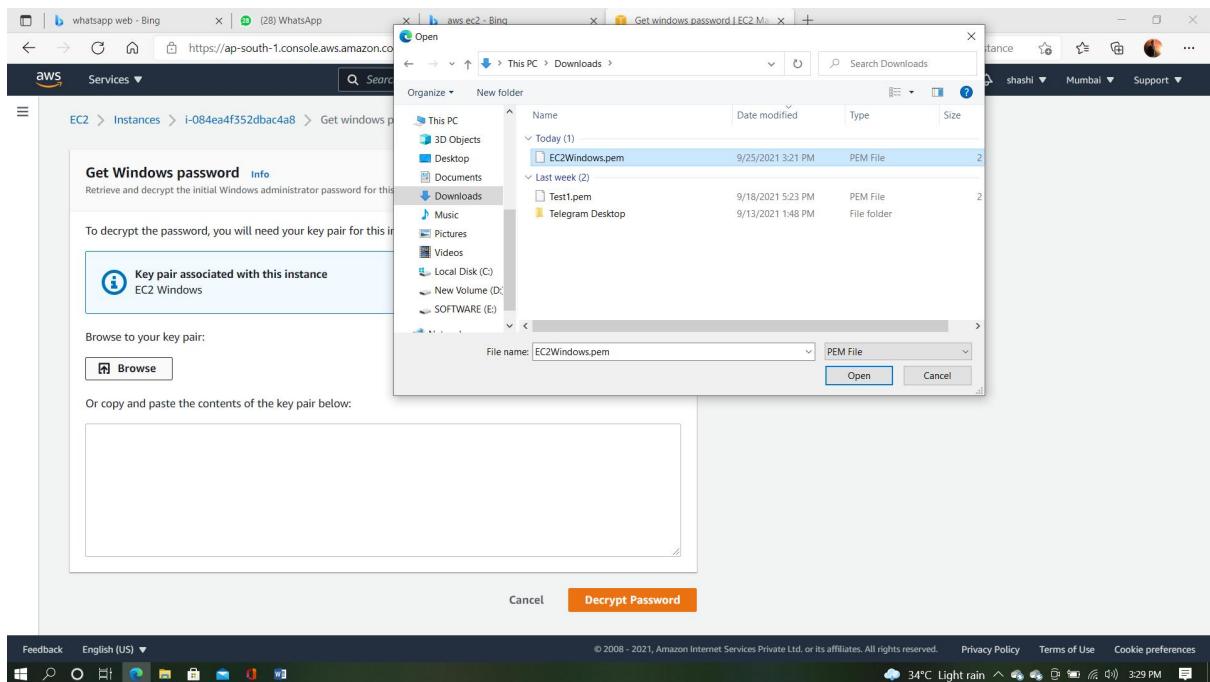
Go to RDP Client and note the user name
for password click on the get password,



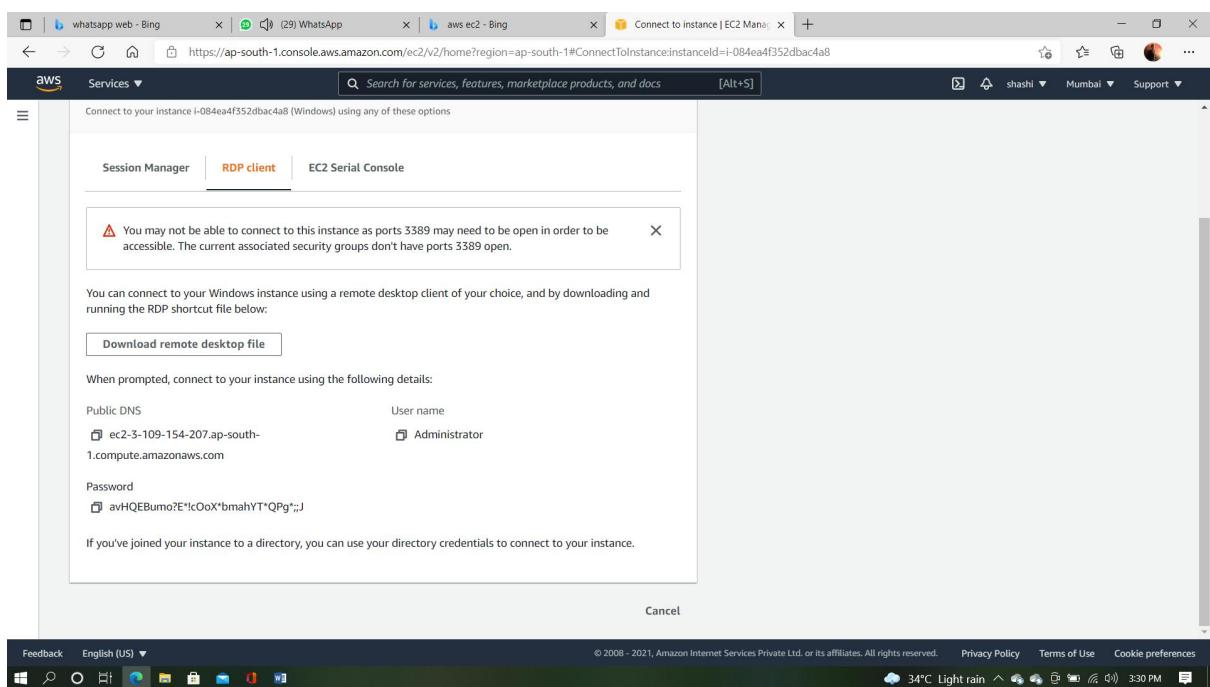
Get Windows Password page will be opened



Click on Browse and upload the .pem file which you downloaded

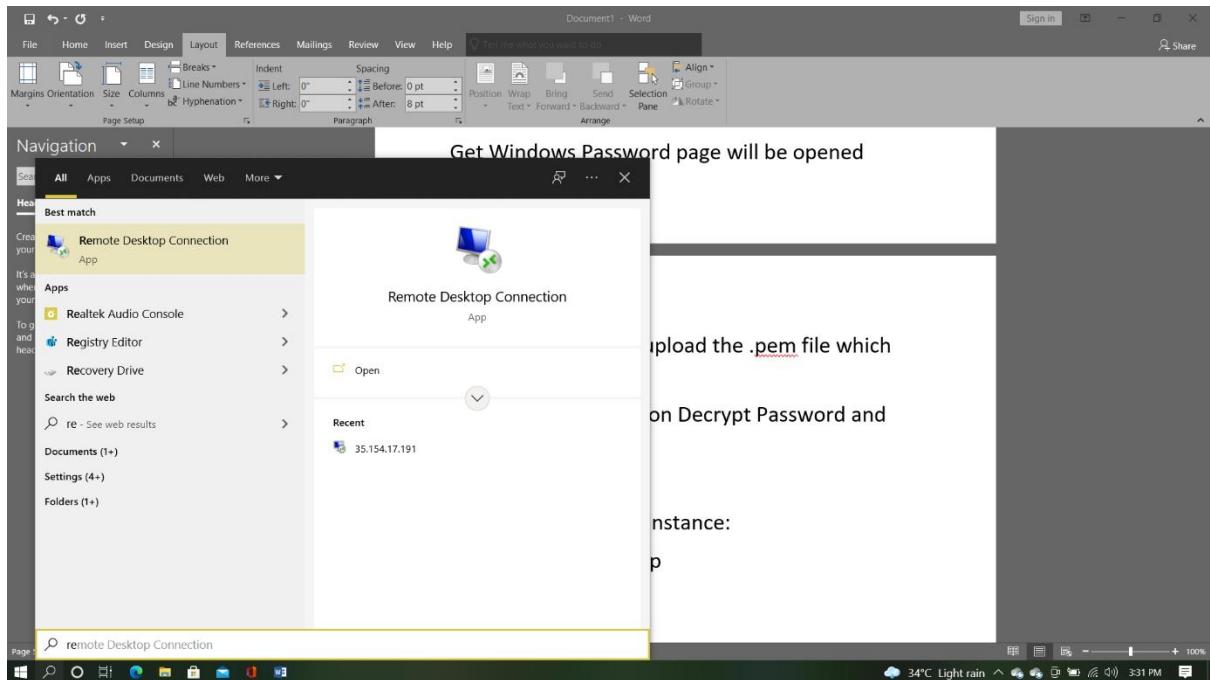


Once uploaded, click on Decrypt Password and note the password



Logging into the EC2 Instance:

Open Remote Desktop Connection software



Enter the Public IPv4 address and click Connect

New EC2 Experience Tell us what you think

Instances (1) Info

Filter instances

Name Instance ID

Windows i-084ea4f352db

Computer: 35.154.17.191

User name: Microsoft\Account\Administrator

You will be asked for credentials when you connect.

Show Options Connect Help

Instances (1)

EC2 Dashboard

EC2 Global View

Events

Tags

Limits

Instances Instances New

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances New

Dedicated Hosts

Capacity Reservations

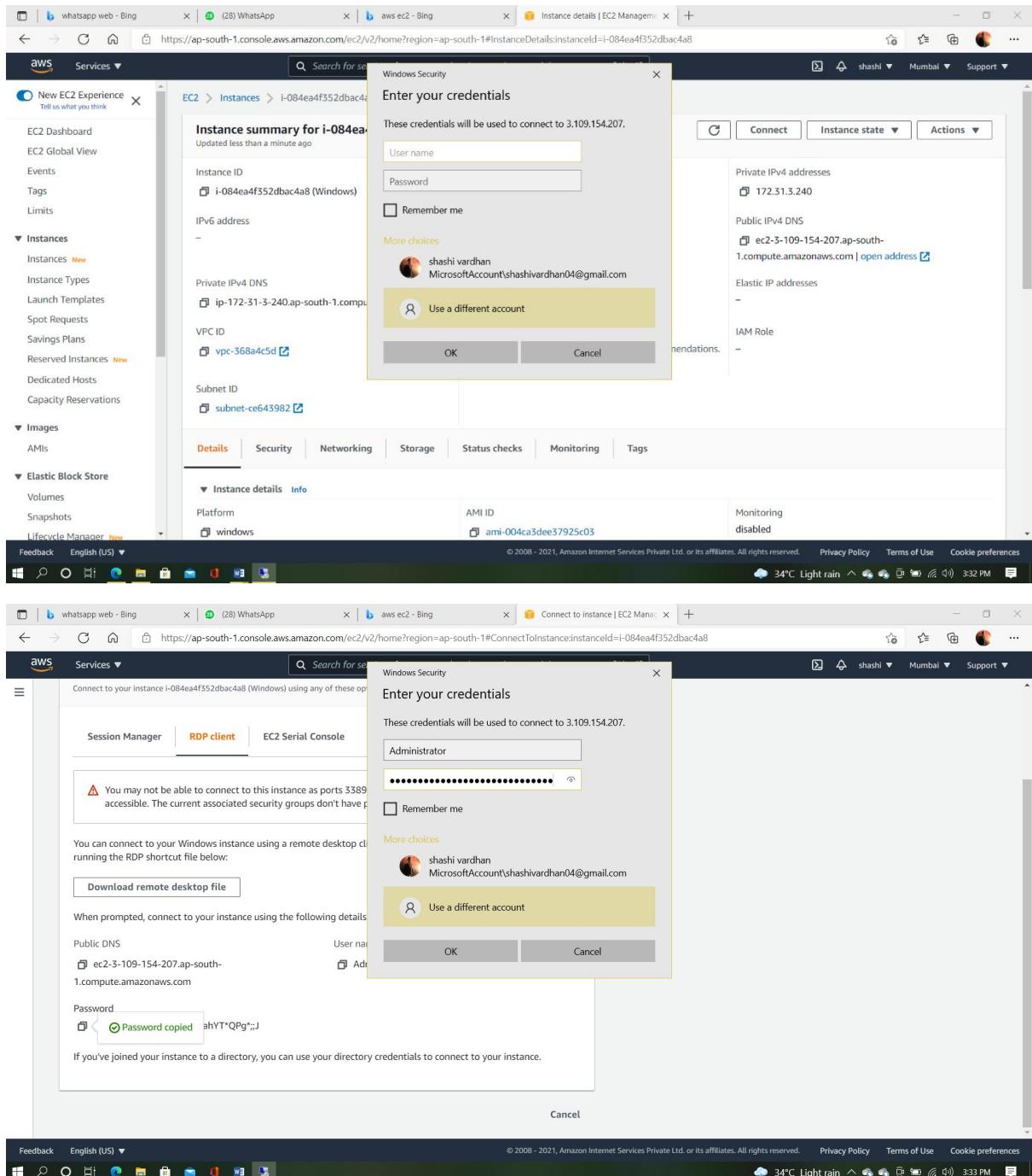
Images AMIs

Elastic Block Store Volumes Snapshots Lifecycle Manager

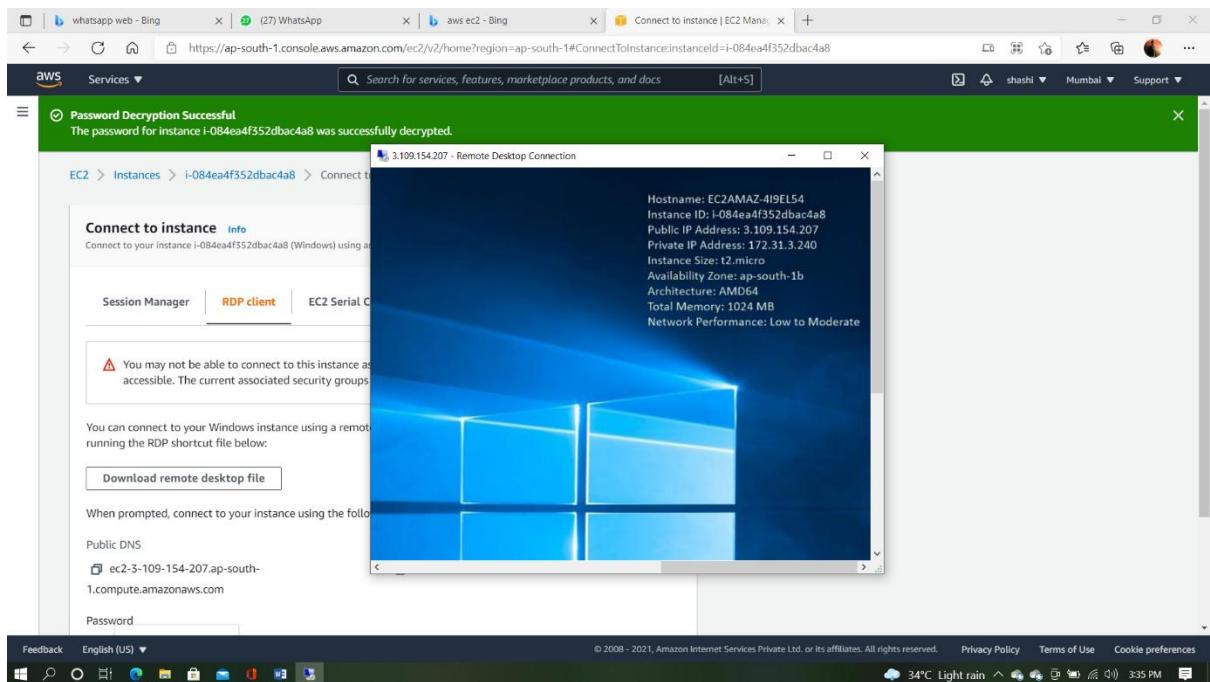
Select an instance above

34°C Light rain 3:31 PM

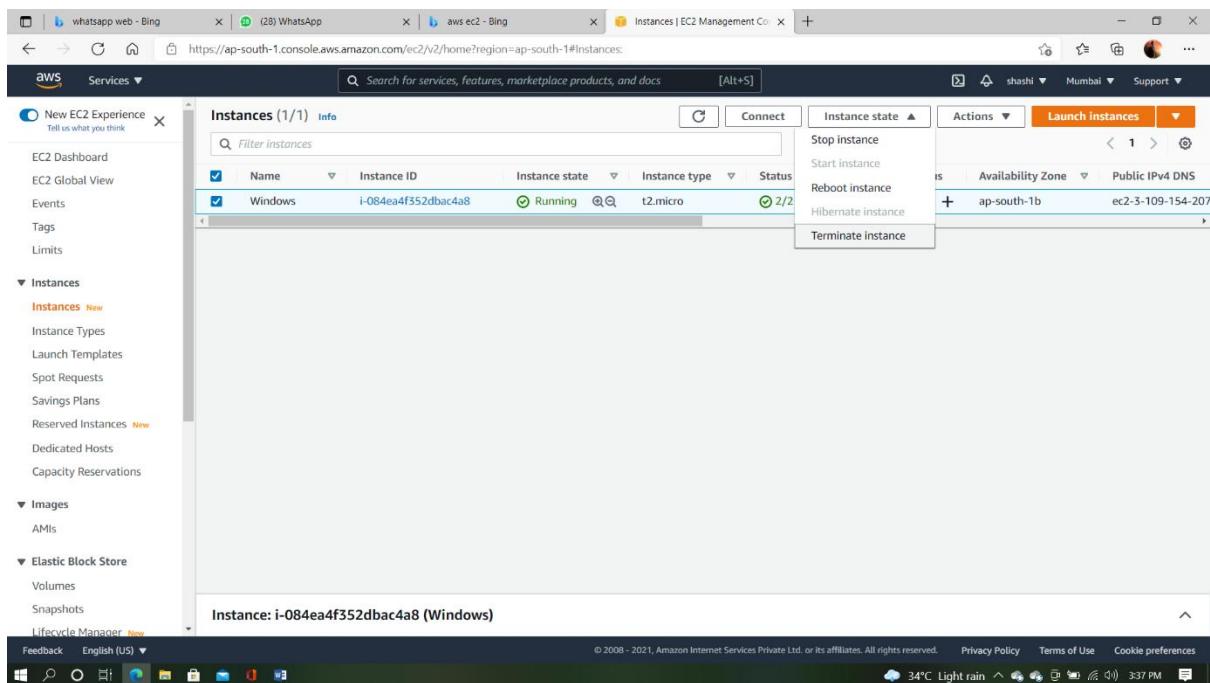
Enter the User Name and Password and click Ok



Instance will be Opened.



To Terminate or Stop or reboot a Instance,



Select the instance and Click on Instance State and click which action you want.

Crating a Linux Instance:

Step 1: Choose an Amazon Machine Image (AMI)

The screenshot shows the 'Launch instance wizard | EC2' interface. Step 1: Choose an AMI is selected. A search bar at the top right contains the placeholder 'Search for services, features, marketplace products, and docs'. Below it, a navigation bar includes links for '1. Choose AMI', '2. Choose Instance Type', '3. Configure Instance', '4. Add Storage', '5. Add Tags', '6. Configure Security Group', and '7. Review'. A 'Cancel and Exit' button is in the top right corner. The main content area displays a list of AMIs under the 'Quick Start' section:

- Amazon Linux 2 AMI (HVM), SSD Volume Type** - ami-0a23ccb2cd9286bb (64-bit x86) / ami-080c1148a83cea662 (64-bit Arm)
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. This AMI is the successor of the Amazon Linux AMI that is approaching end of life on December 31, 2020 and has been removed from this wizard.
Root device type: ebs Virtualization type: hvm ENA Enabled: Yes
 64-bit (x86)
 64-bit (Arm)
Select
- Red Hat Enterprise Linux 8 (HVM), SSD Volume Type** - ami-06a0b4e3b7eb7a300 (64-bit x86) / ami-0cbe04a3ce796c98e (64-bit Arm)
Red Hat Enterprise Linux version 8 (HVM), EBS General Purpose (SSD) Volume Type
Root device type: ebs Virtualization type: hvm ENA Enabled: Yes
 64-bit (x86)
 64-bit (Arm)
Select
- SUSE Linux Enterprise Server 15 SP2 (HVM), SSD Volume Type** - ami-0b3acf3edf2397475 (64-bit x86) / ami-0ab71076ab9b53b0d (64-bit Arm)
SUSE Linux Enterprise Server 15 Service Pack 2 (HVM), EBS General Purpose (SSD) Volume Type. Amazon EC2 AMI Tools preinstalled; Apache 2.2, MySQL 5.5, PHP 5.3, and Ruby 1.8.7 available.
Root device type: ebs Virtualization type: hvm ENA Enabled: Yes
 64-bit (x86)
 64-bit (Arm)
Select

Step 2: Choose an Instance Type

The screenshot shows the 'Launch instance wizard | EC2' interface. Step 2: Choose an Instance Type is selected. A search bar at the top right contains the placeholder 'Search for services, features, marketplace products, and docs'. Below it, a navigation bar includes links for '1. Choose AMI', '2. Choose Instance Type', '3. Configure Instance', '4. Add Storage', '5. Add Tags', '6. Configure Security Group', and '7. Review'. A 'Cancel and Exit' button is in the top right corner. The main content area displays a table of instance types:

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
<input checked="" type="checkbox"/>	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
	t2	t2.medium	2	4	EBS only	-	Low to Moderate	Yes
	t2	t2.large	2	8	EBS only	-	Low to Moderate	Yes
	t2	t2.xlarge	4	16	EBS only	-	Moderate	Yes
	t2	t2.2xlarge	8	32	EBS only	-	Moderate	Yes
	t3	t3.nano	2	0.5	EBS only	Yes	Up to 5 Gigabit	Yes
	t3	t3.micro	2	1	EBS only	Yes	Up to 5 Gigabit	Yes

At the bottom right are buttons for 'Cancel', 'Previous', 'Review and Launch', and 'Next: Configure Instance Details'. The status bar at the bottom shows 'Feedback English (US)', 'Privacy Policy Terms of Use Cookie preferences', '34°C Light rain', and '4:02 PM'.

Step 3: Configure Instance Details

The screenshot shows the 'Configure Instance' step of the AWS Launch Instance Wizard. It includes fields for 'Number of Instances' (set to 1), 'Purchasing option' (Request Spot Instances), 'Network' (vpc-368a4c8d (default)), 'Subnet' (No preference (default subnet in any Availability Zone)), 'Auto-assign Public IP' (Use subnet setting (Enable)), 'Placement group' (Add instance to placement group), 'Capacity Reservation' (Open), 'Domain Join directory' (No directory), 'IAM role' (None), 'Shutdown behavior' (Stop), 'Stop - Hibernate behavior' (Enable hibernation as an additional stop behavior), 'Enable termination protection' (Protect against accidental termination), and 'Monitoring' (Enable CloudWatch detailed monitoring). Buttons at the bottom include 'Cancel', 'Previous', 'Review and Launch' (highlighted in blue), and 'Next: Add Storage'.

Step 4: Add Storage

The screenshot shows the 'Add Storage' step of the AWS Launch Instance Wizard. It displays a table for adding storage volumes:

Volume Type	Device	Snapshot	Size (GiB)	Volume Type	IOPS	Throughput (MB/s)	Delete on Termination	Encryption
Root	/dev/xvda	snap-06bbc66f8621e076	8	General Purpose SSD (gp2)	100 / 3000	N/A	<input checked="" type="checkbox"/>	Not Encrypted

A note below the table states: "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." Buttons at the bottom include 'Cancel', 'Previous', 'Review and Launch' (highlighted in blue), and 'Next: Add Tags'.

Step 5: Add Tags

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		Linux		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Add another tag (Up to 50 tags maximum)

Cancel Previous Review and Launch Next: Configure Security Group

Step 6: Configure Security Group

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: launch-wizard-13

Description: launch-wizard-13 created 2021-09-25T16:02:48.193+05:30

Type	Protocol	Port Range	Source	Description
SSH	TCP	22	Custom 0.0.0.0/0	e.g. SSH for Admin Desktop
HTTP	TCP	80	Custom 0.0.0.0/0, ::/0	e.g. SSH for Admin Desktop
HTTPS	TCP	443	Custom 0.0.0.0/0, ::/0	e.g. SSH for Admin Desktop

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

Step 7: Review Instance Launch

Step 7: Review Instance Launch

Amazon Linux 2 AMI (HVM), SSD Volume Type - ami-0a23ccb2cdd9286bb

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. This AMI is the successor of the Amazon Linux AMI that is a...

Root Device Type: ebs Virtualization type: hvm

Instance Type

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

Security Groups

Security group name	Description
launch-wizard-13	launch-wizard-13 created 2021-09-25T16:02:48.193+05:30

Type Protocol Port Range Source Description

SSH	TCP	22	0.0.0.0/0	
HTTP	TCP	80	0.0.0.0/0	
HTTP	TCP	80	::/0	
HTTPS	TCP	443	0.0.0.0/0	
HTTPS	TCP	443	::/0	

Review

Cancel Previous Launch

Step 8:

Note the Public IP address and User name

Instance summary for i-0e938bb5e38920d14 (Linux)

Updated less than a minute ago

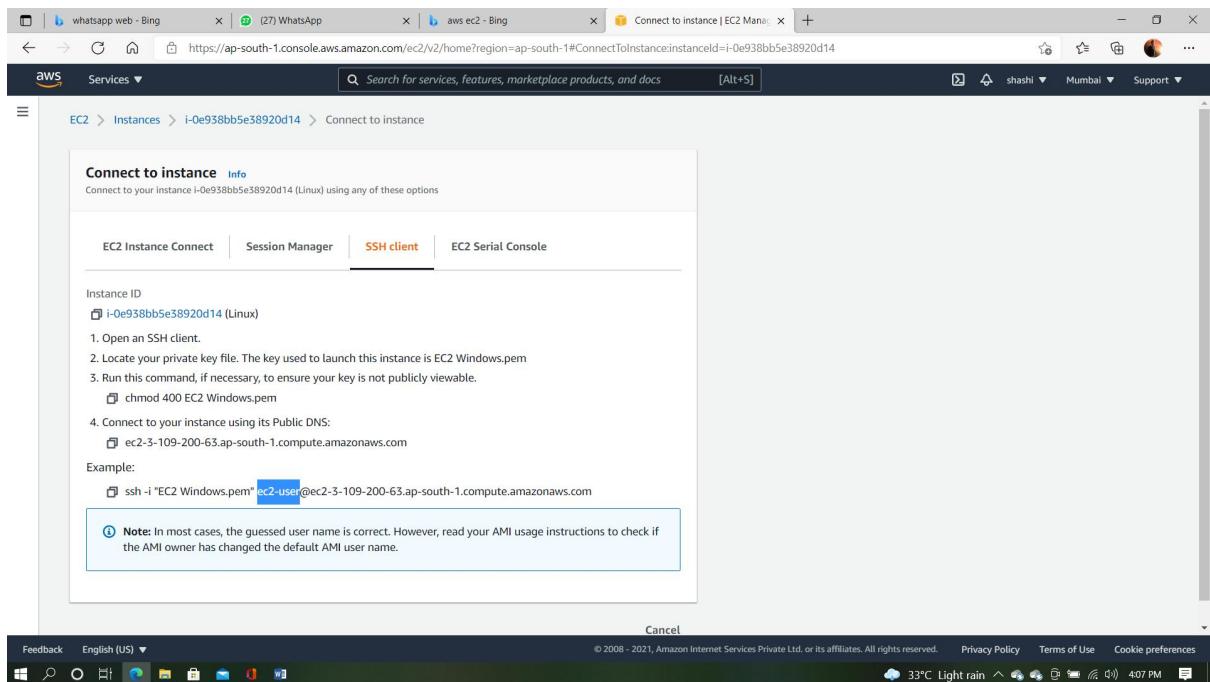
Instance ID	Public IPv4 address	Private IPv4 addresses
i-0e938bb5e38920d14 (Linux)	3.109.200.63 open address	172.31.13.250
IPv6 address	Instance state	Public IP4 DNS
-	Running	ec2-3-109-200-63.ap-south-1.compute.amazonaws.com open address
Private IPv4 DNS	Instance type	Elastic IP addresses
ip-172-31-13-250.ap-south-1.compute.internal	t2.micro	-
VPC ID	AWS Compute Optimizer finding	IAM Role
vpc-368a4c5d	Opt-in to AWS Compute Optimizer for recommendations.	-
Subnet ID	Learn more	
subnet-ce643982		

Details **Security** **Networking** **Storage** **Status checks** **Monitoring** **Tags**

Instance details **Info**

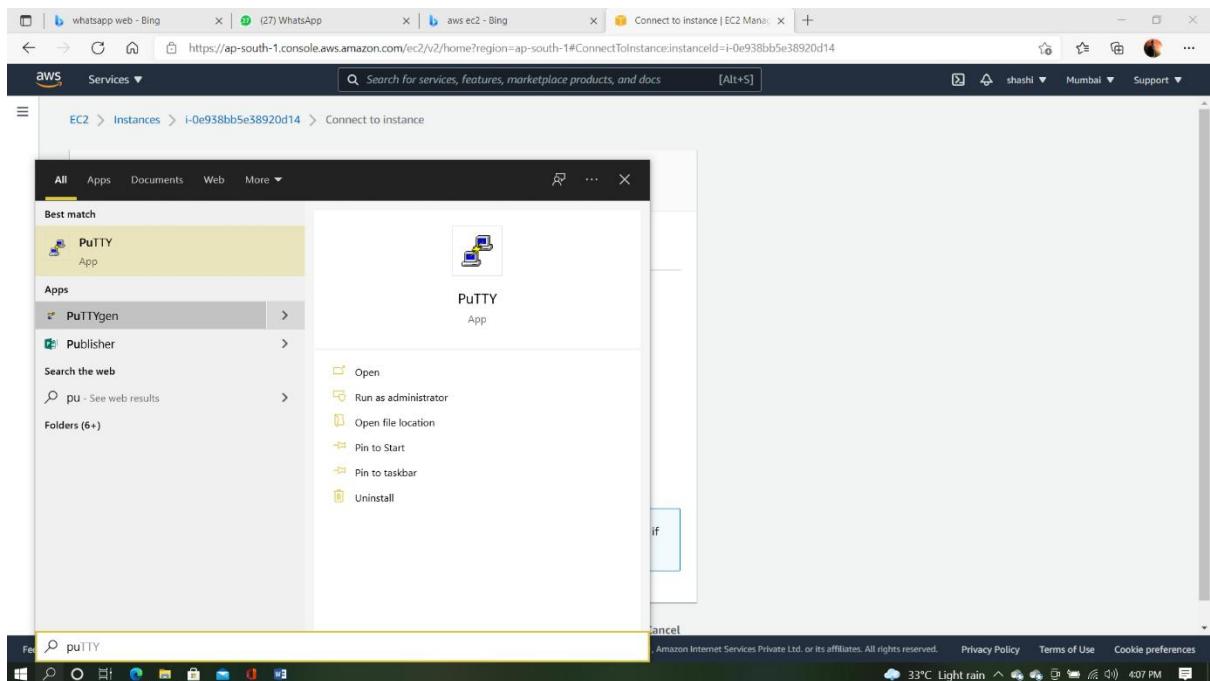
Platform: Amazon Linux (Inferred) AMI ID: ami-0a23ccb2cdd9286bb Monitoring: disabled

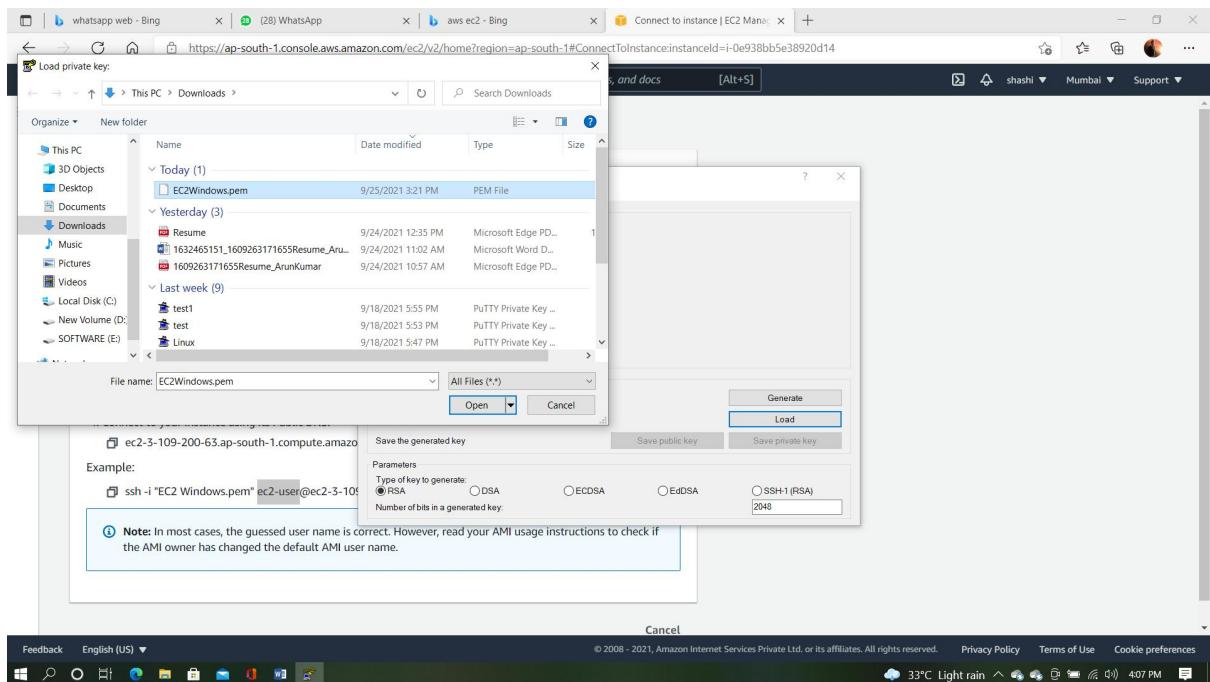
For User Name,



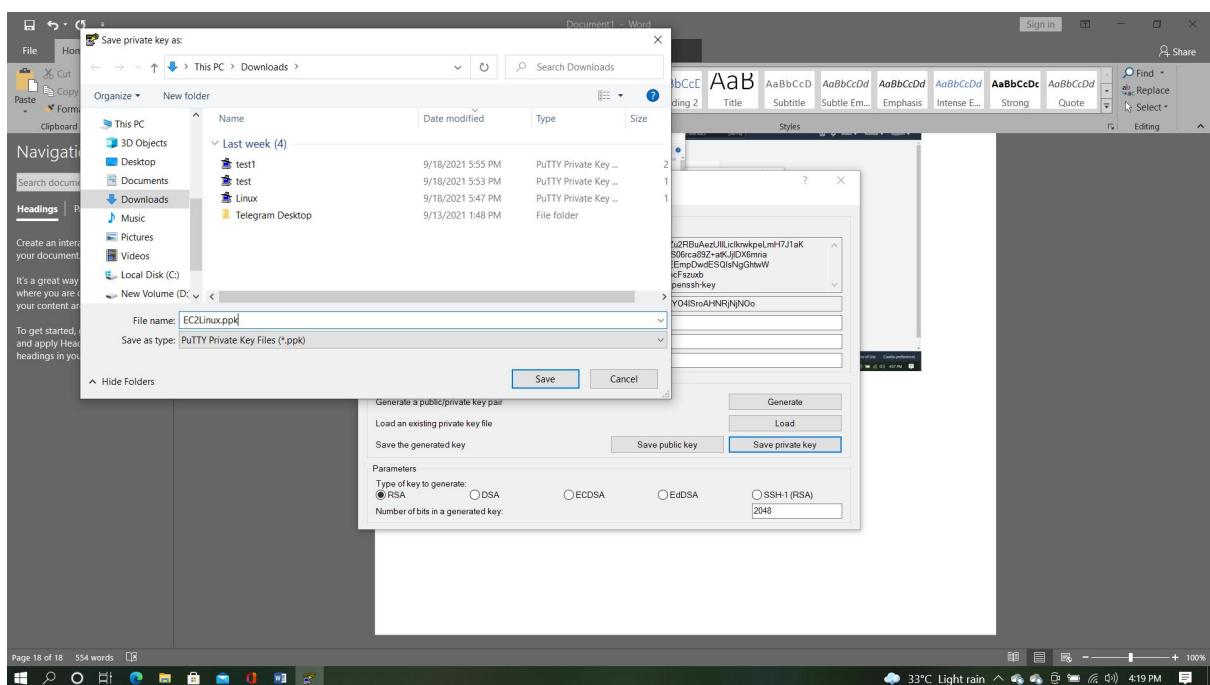
To get the password we need to convert the .pem file into .ppk file(Putty Private Key)

For Conversion we need to use Puttygen Software

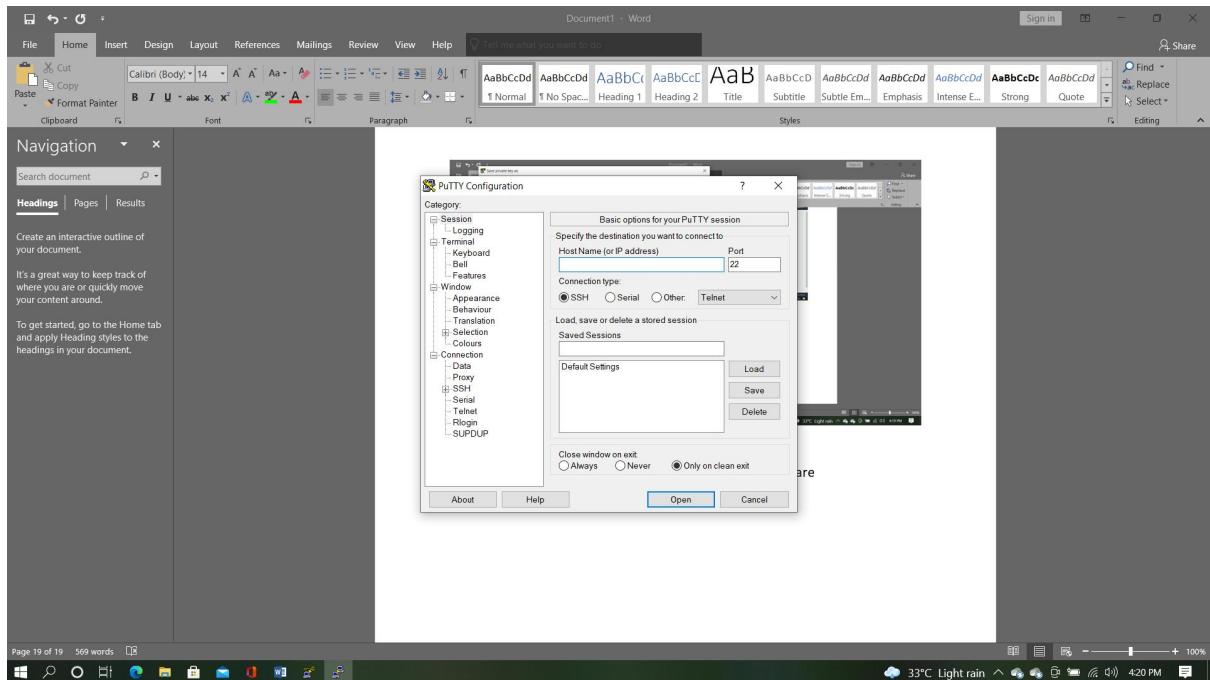




Load the .pem file which you have and once uploaded .ppk file will be generated

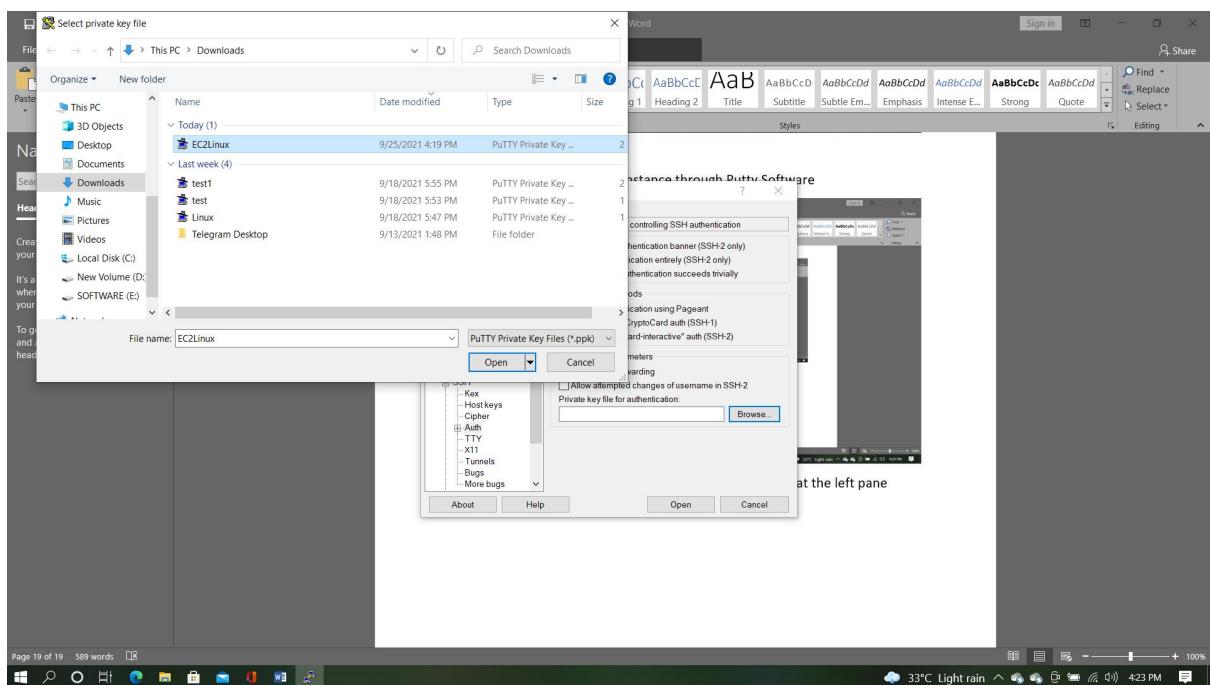


For Linux, we can launch the instance through Putty Software



Enter the Public IP Address in Host Name and click on SSH at the left pane

And click on Auth



And upload the .ppk file.

Once uploaded click on Open. Linux machine will be opened

