

Aim: Create Instance Using SSH Client .

Description:

- A **virtual instance** is a cloud-based virtual machine that provides computing resources like CPU, memory, and storage.
- It allows users to deploy and run applications on remote servers without physical hardware.
- **SSH (Secure Shell)** is a network protocol used to establish a secure and encrypted connection between a local machine and a remote server.
- An **SSH client** enables users to log in remotely, execute commands, transfer files, and manage configurations securely.
- SSH ensures data confidentiality and integrity during communication.
- Common platforms that use instances include **AWS, Google Cloud, Azure**, etc.
- The instance is accessed using an SSH key pair for authentication (public and private keys).
- This method is essential for developers and administrators working in **cloud computing** and **DevOps** environments.

Tools Used:

- Cloud Platform (e.g., AWS / GCP / Azure)
- SSH Client (PuTTY / Terminal)
- Key Pair File (.pem / .ppk)

Step 1 : Choose AMI Linux and Choose an instance type. Then click on configure instance details.

The screenshot shows the AWS Management Console interface for the 'Launch instance wizard'. The current step is 'Step 2: Choose an Instance Type'. The page lists several instance types under the 't2' family. The 't2.micro' instance is selected, and a green badge indicates it is 'Free tier eligible'. The table below shows the details of the selected instance type.

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	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

The bottom of the screen shows a Windows taskbar with various application icons and system tray information, including the date and time (14:37, 29-09-2022).

Step 2 : Select number of instances 4 . Then click on add storage.

The screenshot shows the AWS Launch Instance Wizard at Step 3: Configure Instance Details. The wizard is for an EC2 instance in the ap-south-1 region. The number of instances is set to 4. A blue box suggests launching into an Auto Scaling Group. The purchasing option is 'On-Demand'. The network is 'vpc-0047725c5414fce3 (default)'. The subnet is 'No preference (default subnet in any Availability Zone)'. The auto-assign public IP is 'Use subnet setting (Enable)'. The hostname type is 'Use subnet setting (IP name)'. The 'Review and Launch' button is highlighted.

Launch instance wizard | EC2 M... x New Tab x +

ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-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 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 4 Launch into Auto Scaling Group

You may want to consider launching these instances into an Auto Scaling Group to help you maintain application availability and for easy scaling in the future. [Learn how Auto Scaling can help your application stay healthy and cost effective.](#)

Purchasing option ☐ Request Spot Instances

Network vpc-0047725c5414fce3 (default) Create new VPC

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

Auto-assign Public IP Use subnet setting (Enable)

Hostname type Use subnet setting (IP name)

Cancel Previous **Review and Launch** Next: Add Storage

Feedback Looking for language selection? Find it in the new Unified Settings

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29°C Cloudy ENG IN 14:39 29-09-2022

Step 3 : Volume type must be root there will be no any changes in this step.Then click on add tags.

The screenshot shows the AWS Launch Instance Wizard at Step 4: Add Storage. The wizard is for an EC2 instance in the ap-south-1 region. The root volume is shown with a size of 8 GiB, General Purpose SSD (gp2) volume type, 100 / 3000 IOPS, and N/A throughput. The 'Delete on Termination' checkbox is checked. The 'Add New Volume' button is highlighted.

Launch instance wizard | EC2 M... x New Tab x +

ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-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 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-0dee069755150f907	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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Step 4 : Click on add tags then type in value tab .e.g. webserverwin

Launch instance wizard | EC2 M... x New Tab x +

ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#LaunchInstanceWizard:

aws Services Search for services, features, blogs, docs, and more [Alt+S]

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	Value	Instances	Volumes	Network Interfaces
Name	webserverwin	<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

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29°C Cloudy

Launch instance wizard | EC2 M... x New Tab x +

ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#LaunchInstanceWizard:

aws Services Search for services, features, blogs, docs, and more [Alt+S]

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: webserverwin

Description: launch-wizard-10 created 2022-09-29T14:41:06.678+05:30

Type	Protocol	Port Range	Source	Description
SSH	TCP	22	Custom 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

Feedback Looking for language selection? Find it in the new Unified Settings

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Launch instance wizard | EC2 M... x New Tab x +

ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#LaunchInstanceWizard:

aws Services Search for services, features, blogs, docs, and more [Alt+S]

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

Please review your instance launch details. You can go back to edit changes for each section. Click **Launch** to assign a key pair to your instance and complete the launch process.

Warning
Improve your instances' security. Your security group, webserverwin, is open to the world.
Your instances may be accessible from any IP address. We recommend that you update your security group rules to allow access from known IP addresses only.
You can also open additional ports in your security group to facilitate access to the application or service you're running, e.g., HTTP (80) for web servers. Edit security groups

AMI Details [Edit AMI](#)

Free tier eligible
Amazon Linux 2 AMI (HVM) - Kernel 5.10, SSD Volume Type - ami-01216e7612243e0ef
Amazon Linux 2 comes with five years support. It provides Linux kernel 5.10 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 n...
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

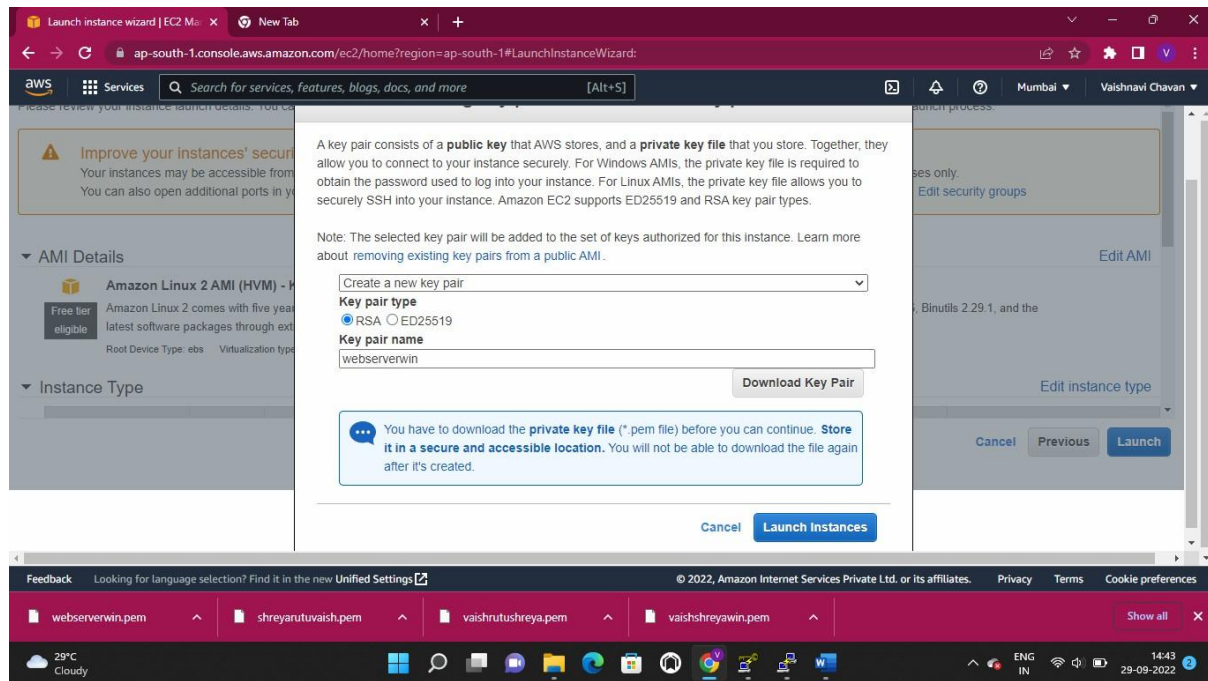
Cancel Previous Launch

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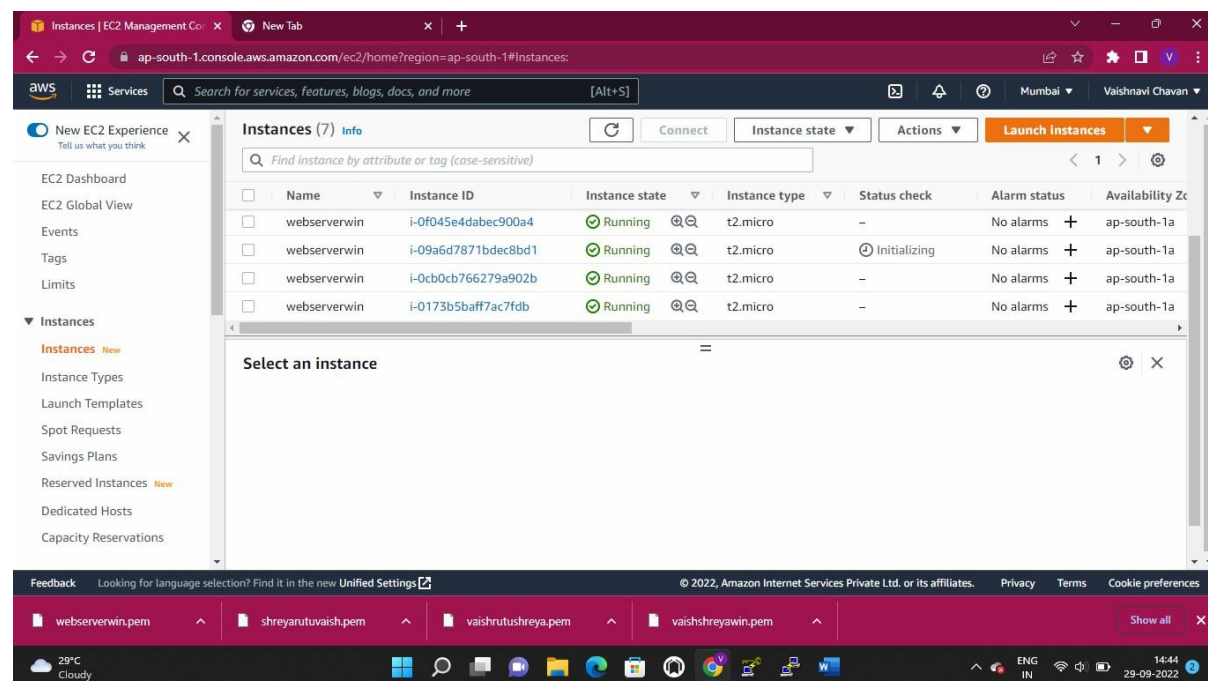
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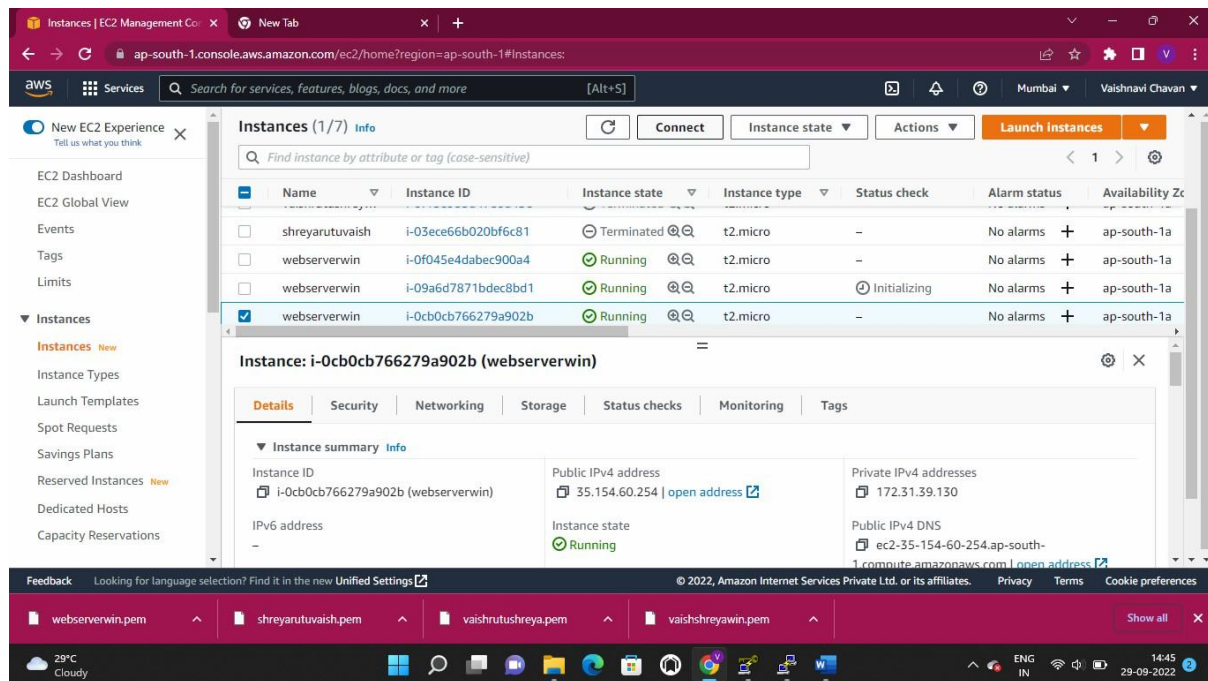
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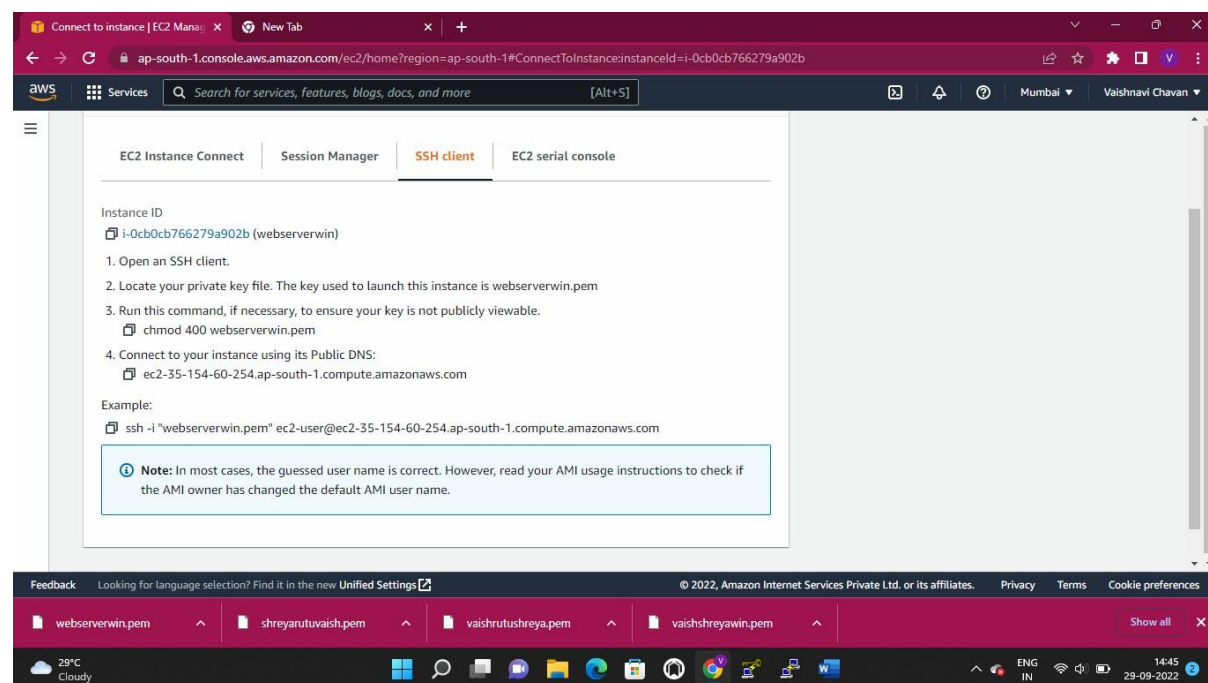


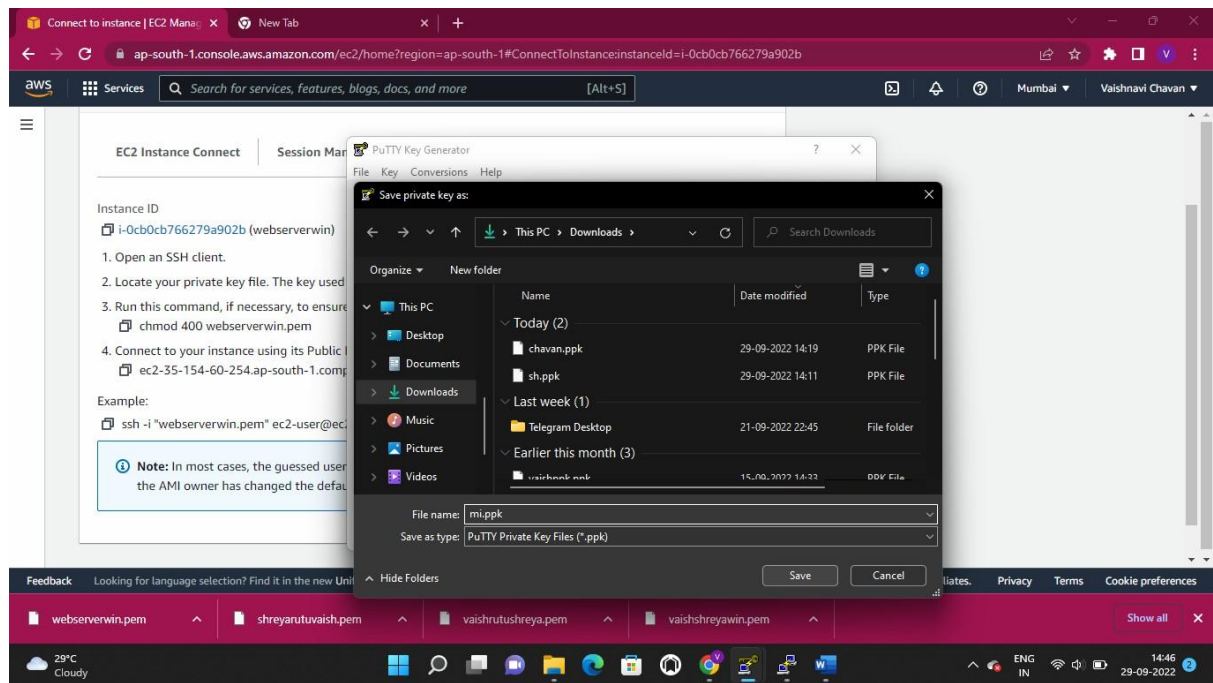
Step 5 : Select Instances that you have going to created. Now our four instances are running then select one out off this and connect.



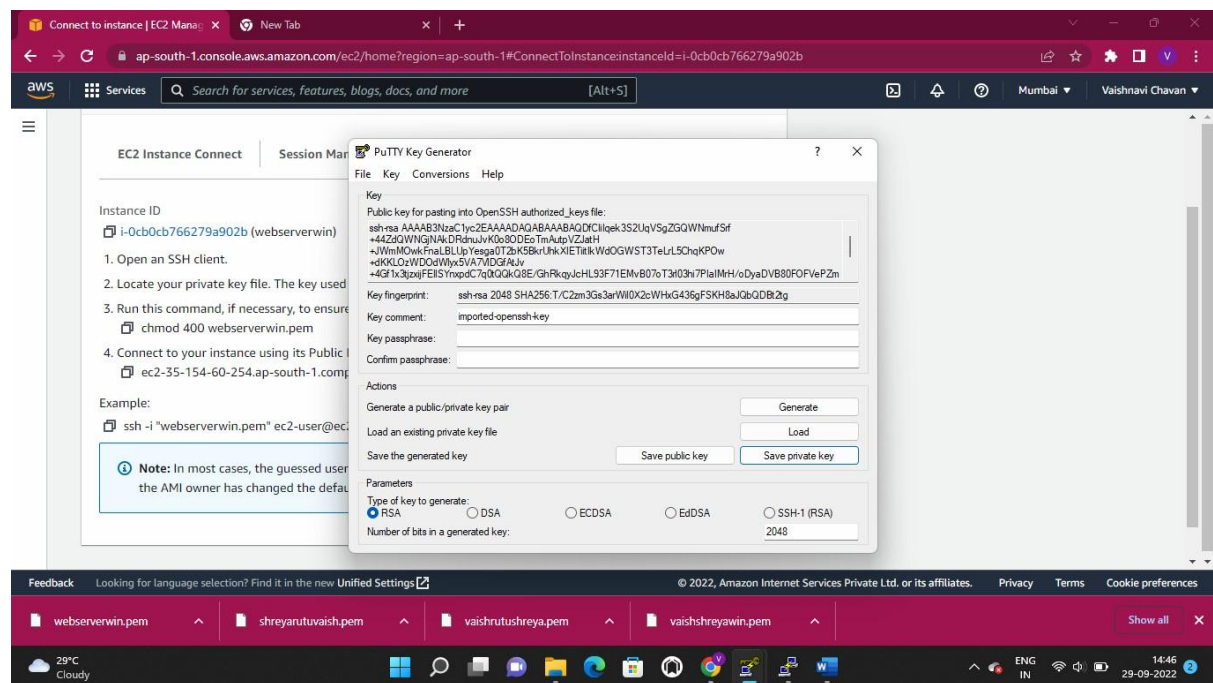


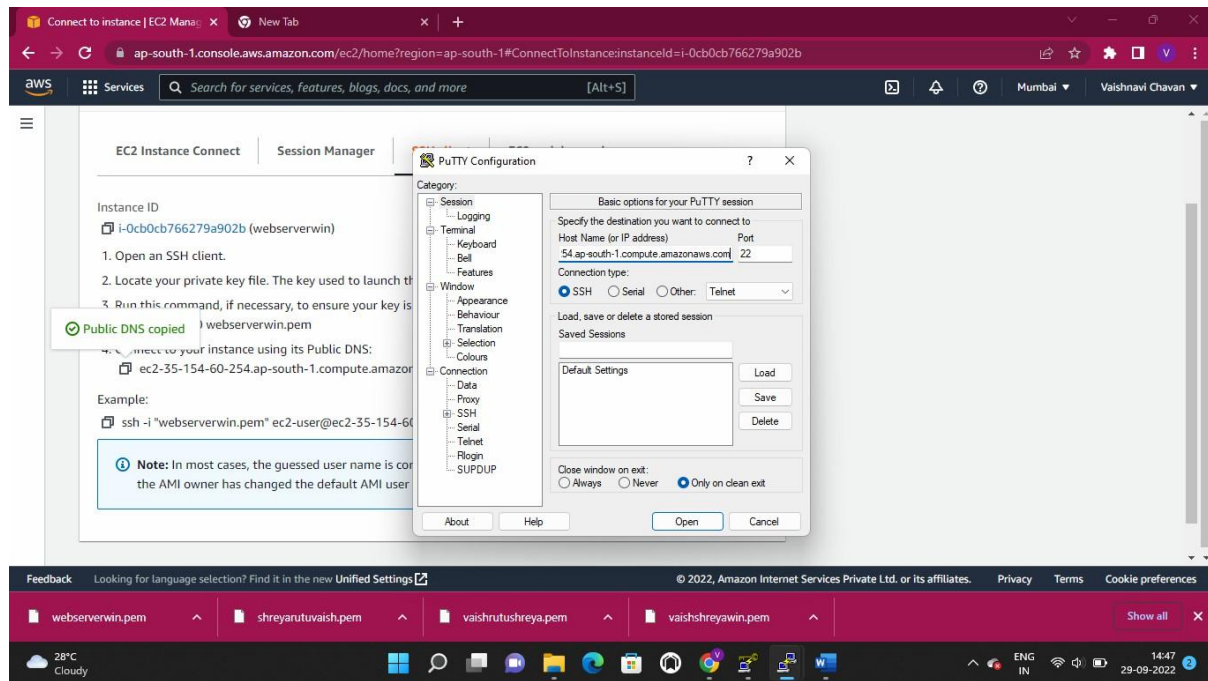
Step 6 : Select SSH Client then copy public DNS.





Step 7 : Then download PuttyGen and PuttyExe . Open Putty Gen then click on load then paste downloaded pem file . Then click on save private key in the form of .ppk then minimize.





Step 8 : Click on Putty exe , open it and paste public DNS .select client SSH. Click on SSH then Auth click on it. Browze PPK file here then click on open. Our Window will be open.

