

Practical-6 Virtualization

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1.Navigate through EC2. Click on launch instance.

The screenshot shows the AWS Management Console's EC2 Dashboard. On the left is a navigation menu with categories like Instances, Images, Elastic Block Store, and Network & Security. The main content area is divided into several sections: 'Resources' showing a summary of EC2 resources in the Asia Pacific (Mumbai) Region; 'Launch instance' with a prominent orange button; 'Instance alarms' showing 0 in alarm, 0 OK, and 0 insufficient data; 'Scheduled events'; 'Service health' indicating the service is operating normally; 'Zones' listing available zones; 'EC2 Free Tier' offers showing 2 free tier offers in use; 'Offer usage (monthly)' for Linux EC2 instances; and 'Account attributes' including the default VPC and settings.

2.Give name and under **quick start** select 'ubuntu'.

The screenshot shows the 'Launch an instance' wizard in the AWS Management Console. The 'Name and tags' section has 'webserver' entered. The 'Application and OS Images (Amazon Machine Image)' section shows the 'Quick Start' tab selected, with 'Ubuntu' chosen from the 'Recently' list. The 'Summary' section on the right shows the configuration: 1 instance, Ubuntu 24.04 LTS (HVM), t2.micro instance type, new security group, and 8 GiB storage. A 'Free tier' notification is displayed, stating that the first year includes 750 hours of t2.micro (or t3.micro) instance usage on free tier AMIs per month, 750 hours of public IPv4 address usage per month, 30 GiB of EBS storage, 2 million I/Os, 1 GiB of snapshots, and 100 GiB of bandwidth to the internet.

3.Create key-pair.

All generations

Number of instances

Info

Create key pair

Key pair name

Key pairs allow you to connect to your instance securely.

keypair

The name can include up to 255 ASCII characters. It can't include leading or trailing spaces.

Key pair type



☒ RSA
RSA encrypted private and public key pair

☐ ED25519
ED25519 encrypted private and public key pair

Private key file format

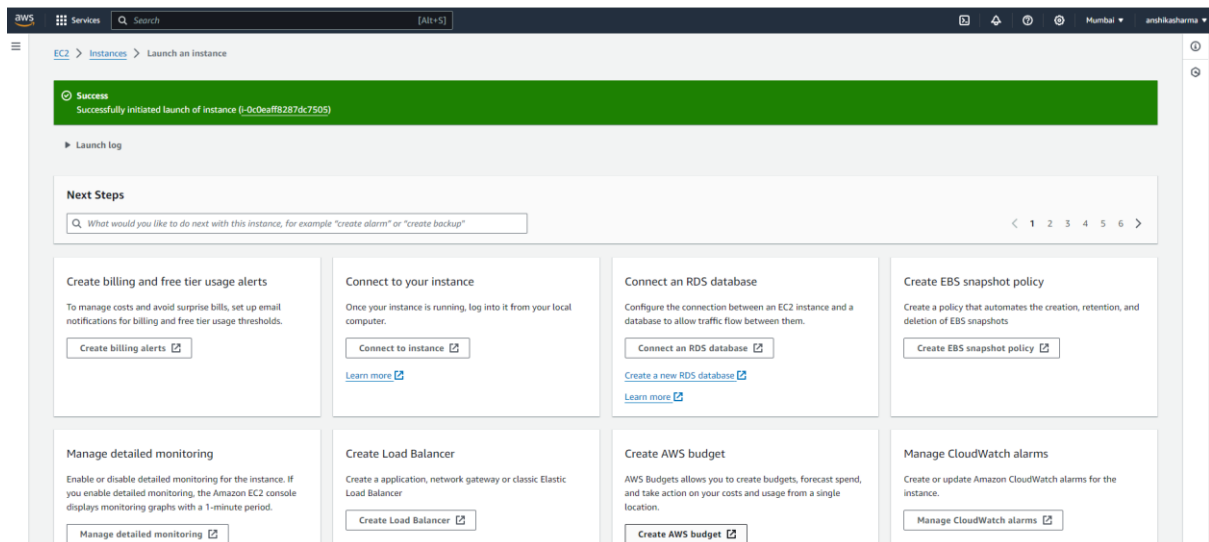
☒ .pem
For use with OpenSSH

☐ .ppk
For use with PuTTY

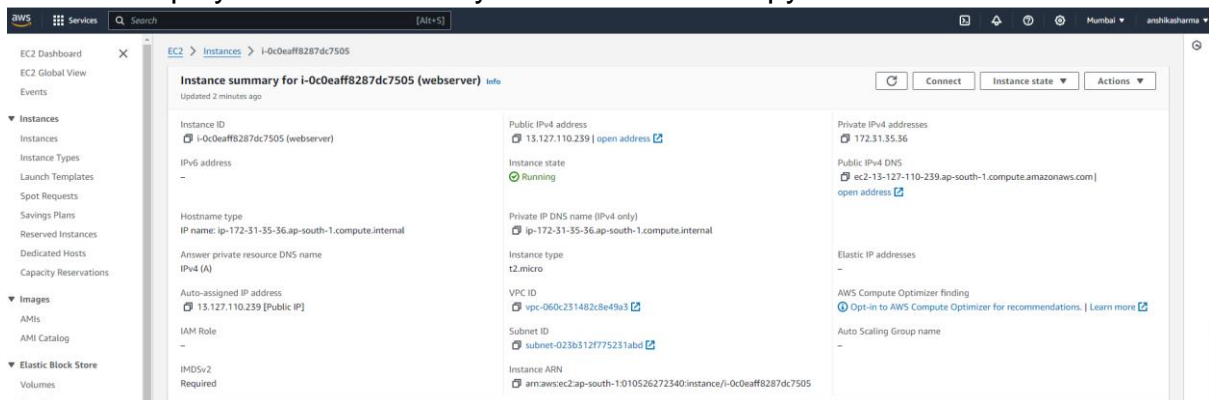
 When prompted, store the private key in a secure and accessible location on your computer. **You will need it later to connect to your instance.** [Learn more](#) 

Cancel Create key pair

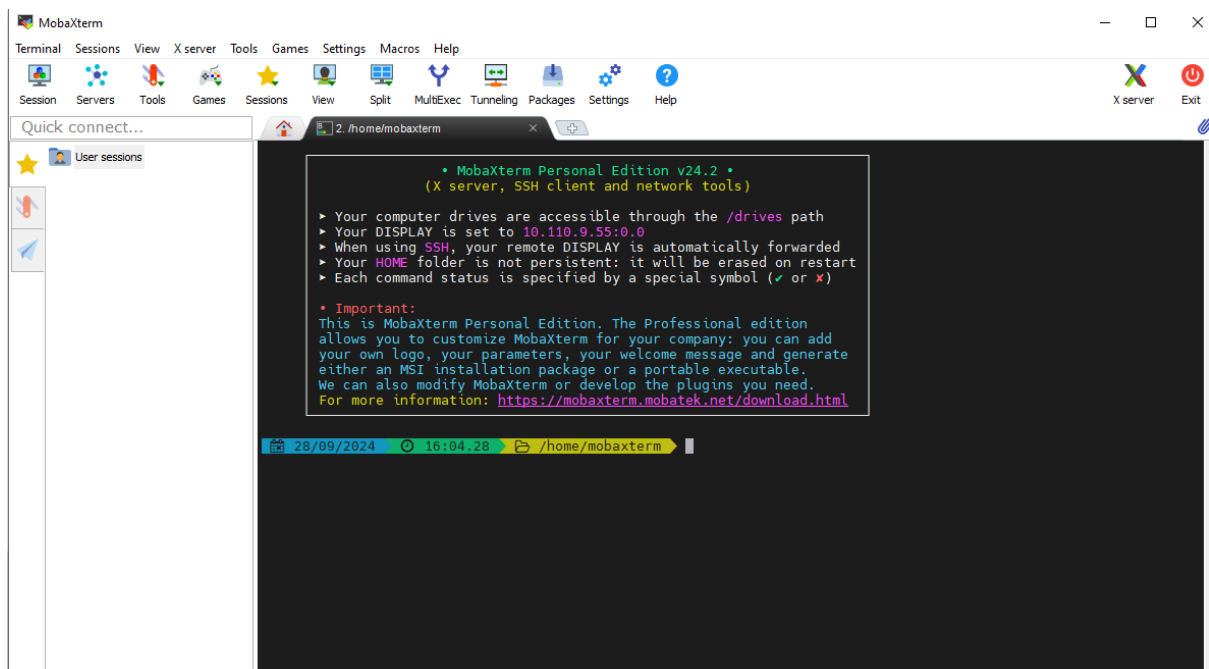
4. Then click on **Launch instance**. Instance gets launched successfully.



5. Below displayed is the summary of the instance. Copy the **Public IPv4 address**.



6. Go to MobaXterm and click on **session**.



7. Click on **SSH**. Paste the copied **Public IPv4 address** in the **Remote host** and specify username which you gave your instance. Then click on **Advanced SSH settings** and select Use private key and upload the keypair downloaded file there.



Basic SSH settings

Remote host * 13.127.110.239

☒ Specify username webserver

Port 22

Advanced SSH settings

Terminal settings

Network settings

Bookmark settings

☒ X11-Forwarding☒ Compression

Remote environment: Interactive shell

Execute command:

☐ Do not exit after command ends

SSH-browser type: SFTP protocol

☐ Follow SSH path (experimental)☒ Use private key C:\Users\innmims.student\Download

Expert SSH settings

Execute macro at session start: <none>

OK

Cancel

8. Similarly create instance for **Windows** by clicking on **Launch Instance**.

Resources

You are using the following Amazon EC2 resources in the Asia Pacific (Mumbai) Region:

Resource	Count
Instances (running)	1
Auto Scaling Groups	0
Capacity Reservations	0
Dedicated Hosts	0
Elastic IPs	0
Instances	2
Key pairs	8
Load balancers	0
Placement groups	0
Security groups	10
Snapshots	0
Volumes	2

Launch instance

To get started, launch an Amazon EC2 instance, which is a virtual server in the cloud.

[Launch instance](#) [Migrate a server](#)

Note: Your instances will launch in the Asia Pacific (Mumbai) Region

Instance alarms

0 in alarm 0 OK 0 insufficient data

[View in CloudWatch](#)

Scheduled events

Service health

AWS Health Dashboard

Region: Asia Pacific (Mumbai)

Status: This service is operating normally.

Zones

Zone name	Zone ID
ap-south-1a	aps1-az1
ap-south-1b	aps1-az3
ap-south-1c	aps1-az2

[Enable additional Zones](#)

EC2 Free Tier

Offers for all AWS Regions.

2 EC2 free tier offers in use

End of month forecast

0 offers forecasted to exceed free tier limit.

Exceeds free tier

0 offers exceeded and is now pay-as-you-go pricing.

[View Global EC2 resources](#)

Offer usage (monthly)

Linux EC2 Instances

749,931,989 hours remaining

Storage space on EBS

30 GB remaining

[View all AWS Free Tier offers](#)

Account attributes

[Default VPC](#)

vpc-060c231482c8e49a3

Settings

[Data protection and security](#)

9. Give name to your server and then select **Windows** under **quick start**.

Launch an instance

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

Name and tags

Name: [Add additional tags](#)

Application and OS Images (Amazon Machine Image)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below.

Recents | **Quick Start**

Amazon Linux, macOS, Ubuntu, Windows, Red Hat, SUSE Linux

Amazon Machine Image (AMI)

Microsoft Windows Server 2022 Base
ami-0532b4fc22a2c3f82 (64-bit x86)
Virtualization: hvm ENA enabled: true Root device type: ebs

Summary

Number of instances:

Software Image (AMI): Microsoft Windows Server 2022 ...
ami-0532b4fc22a2c3f82

Virtual server type (instance type): t2.micro

Firewall (security group): New security group

Storage (volumes): 1 volume(s) - 30 GiB

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 750 hours of public IPv4 address usage per month, 30 GiB of EBS storage, 2 million I/Os, 1 GiB of snapshots, and 100 GiB of bandwidth to the internet.

[Cancel](#) [Launch instance](#) [Review commands](#)

10. Create key pair and then click on **launch instance**.

Number of instances

Info

Create key pair

×

Key pair name

Key pairs allow you to connect to your instance securely.

keypair22

The name can include up to 255 ASCII characters. It can't include leading or trailing spaces.

Key pair type


☒ RSA
RSA encrypted private and public key pair

☐ ED25519
ED25519 encrypted private and public key pair (Not supported for Windows instances)

Private key file format

☒ .pem
For use with OpenSSH

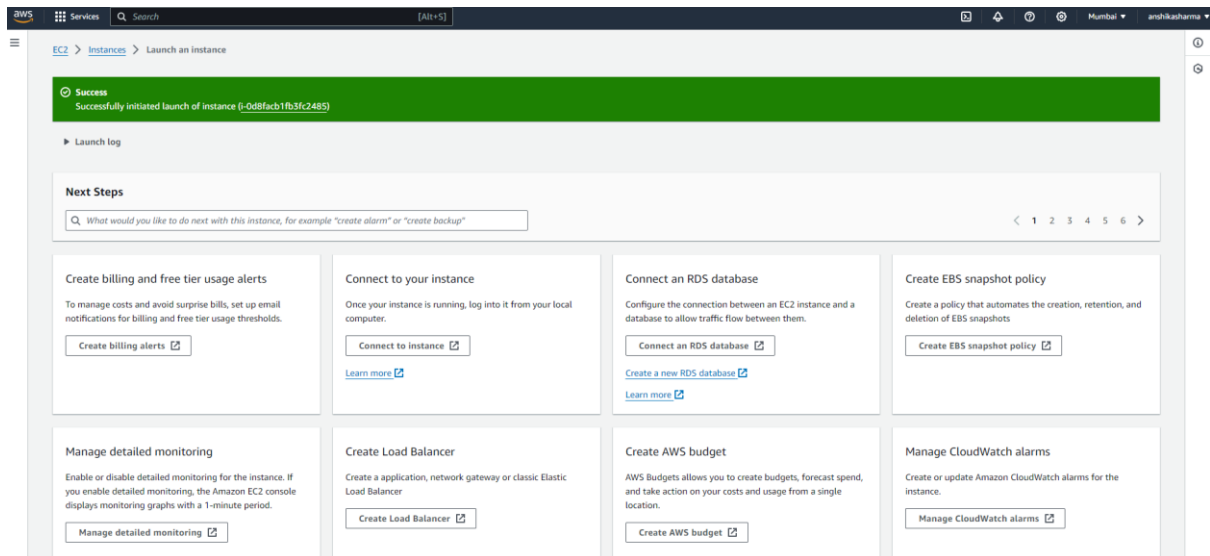
☐ .ppk
For use with PuTTY

⚠ When prompted, store the private key in a secure and accessible location on your computer. **You will need it later to connect to your instance.** [Learn more](#) 

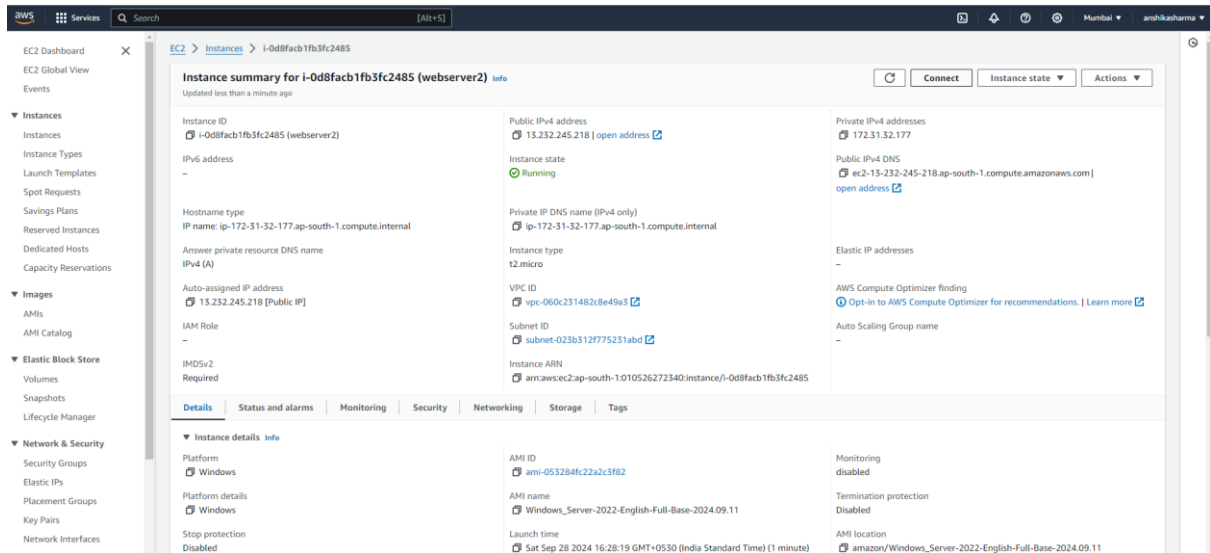
Cancel

Create key pair


11.The instance gets **launched successfully**.



12. Click on **Connect**.



13. Select **RDP Client**. Download the **Remote Desktop** file. Click on **Get password**.

 Services [Alt+S]

EC2 > Instances > i-0d8facb1fb3fc2485 > Connect to instance

Connect to instance [Info](#)


Connect to your instance i-0d8facb1fb3fc2485 (webserver2) using any of these options

Session Manager

RDP client

EC2 serial console

Instance ID


 i-0d8facb1fb3fc2485 (webserver2)

Connection Type


☒ **Connect using RDP client**

Download a file to use with your RDP client and retrieve your password.

☐ **Connect using Fleet Manager**


To connect to the instance using Fleet Manager Remote Desktop, the SSM Agent must be installed and running on the instance. For more information, see [Working with SSM Agent](#) 

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:


 **Download remote desktop file**

When prompted, connect to your instance using the following username and password:


Public DNS

 ec2-13-232-245-218.ap-south-1.compute.amazonaws.com

Username [Info](#)

 Administrator ▼

Password [Get password](#)

 If you've joined your instance to a directory, you can use your directory credentials to connect to your instance.

14. Upload the **private key file** which you downloaded earlier and click on **Decrypt Password**.

[EC2](#) > [Instances](#) > [i-0d8facb1fb3fc2485](#) > Get Windows password


Get Windows password [Info](#)

Use your private key to retrieve and decrypt the initial Windows administrator password for this instance.

Instance ID

 [i-0d8facb1fb3fc2485](#) (webserver2)

Key pair associated with this instance

 [keypair22](#)

Private key

Either upload your private key file or copy and paste its contents into the field below.

 Upload private key file

Private key contents - *optional*

Private key contents

Cancel

Decrypt password

15. Copy the **Decrypted password** and **username**.

Connect to instance [Info](#)

Connect to your instance i-0d8facb1fb3fc2485 (webserver2) using any of these options

Session Manager

RDP client

EC2 serial console

Instance ID


 i-0d8facb1fb3fc2485 (webserver2)

Connection Type


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Download a file to use with your RDP client and retrieve your password.

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To connect to the instance using Fleet Manager Remote Desktop, the SSM Agent must be installed and running on the instance. For more information, see [Working with SSM Agent](#) 

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:


 **Download remote desktop file**

When prompted, connect to your instance using the following username and password:


Public DNS



ec2-13-232-245-218.ap-south-
1.compute.amazonaws.com

Username [Info](#)

 Administrator ▼

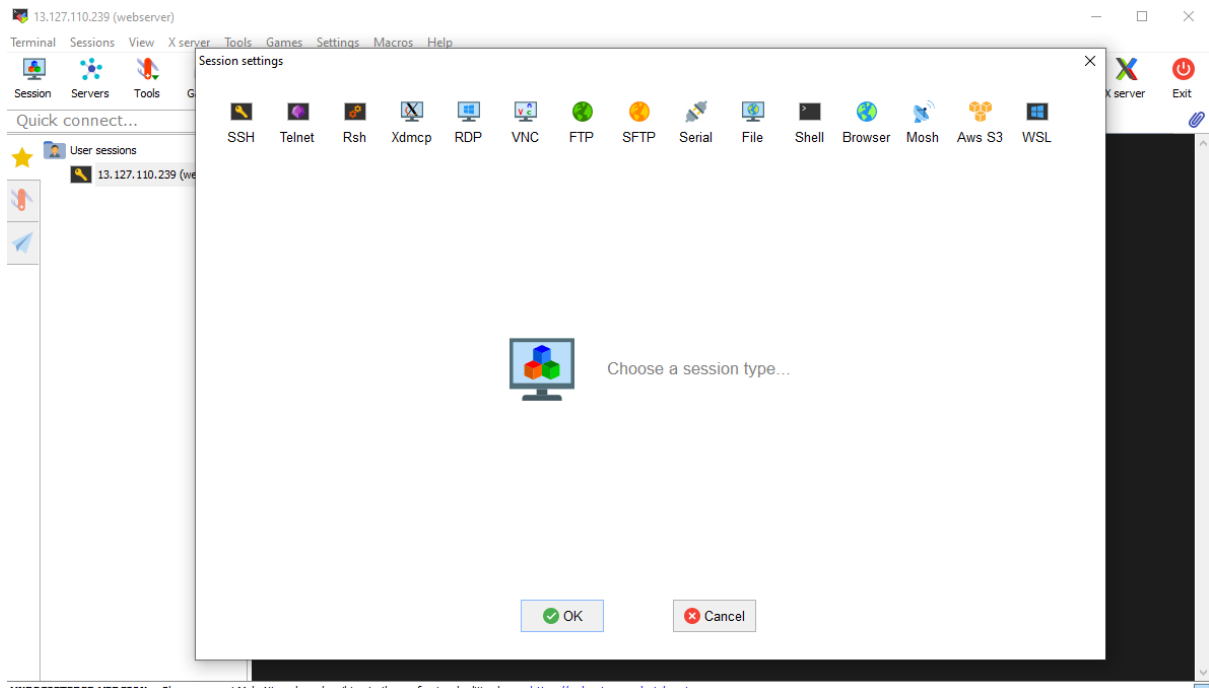
Password

 !17gMvL.X9bw3RWqHX2k?(KZ9Z5FLcz&

 If you've joined your instance to a directory, you can use your directory credentials to connect to your instance.

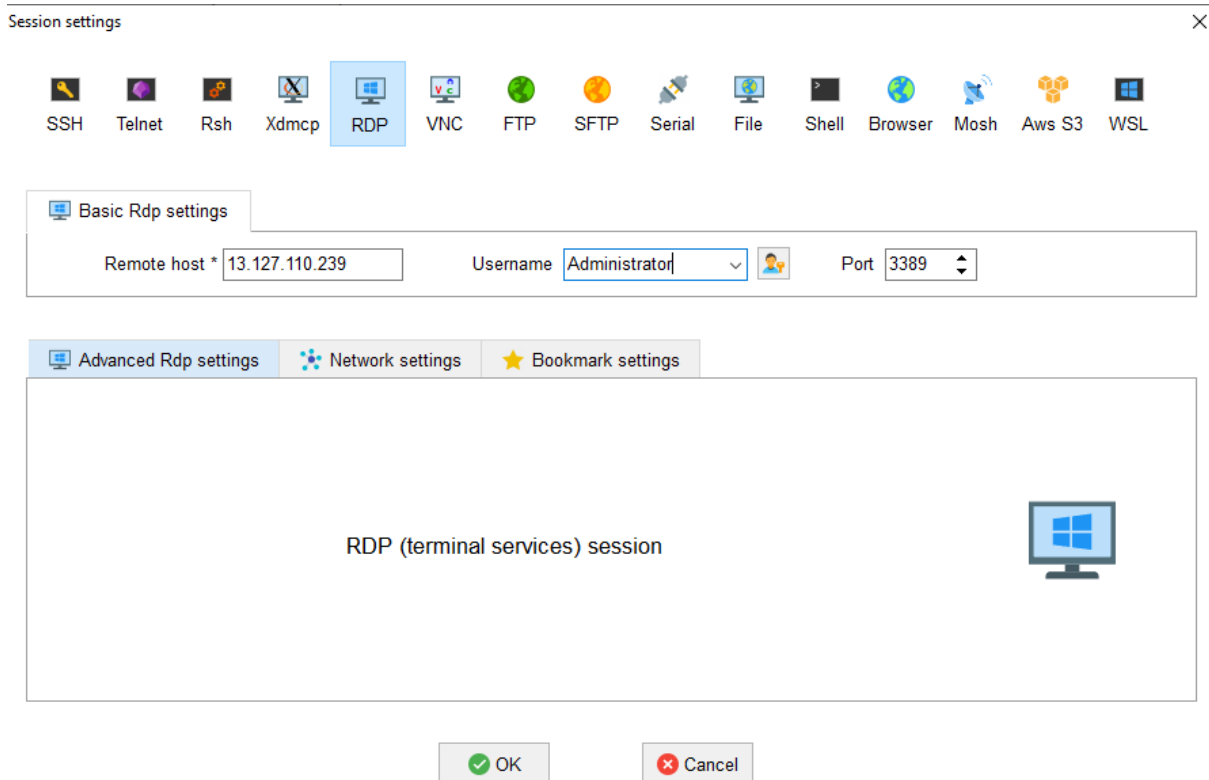
Cancel

16. Navigate to MobaXterm and click on **Session**.

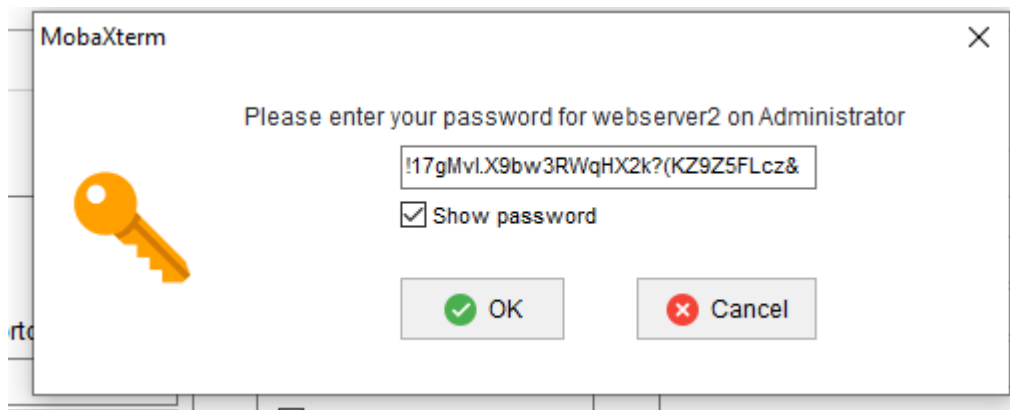


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17. Click on RDP and paste the copied **Public IPv4 address** in the **Remote host** and paste the username. Click on **OK**.



18. Paste the Password Copied upon Decryption.



19. The below screen appears.

