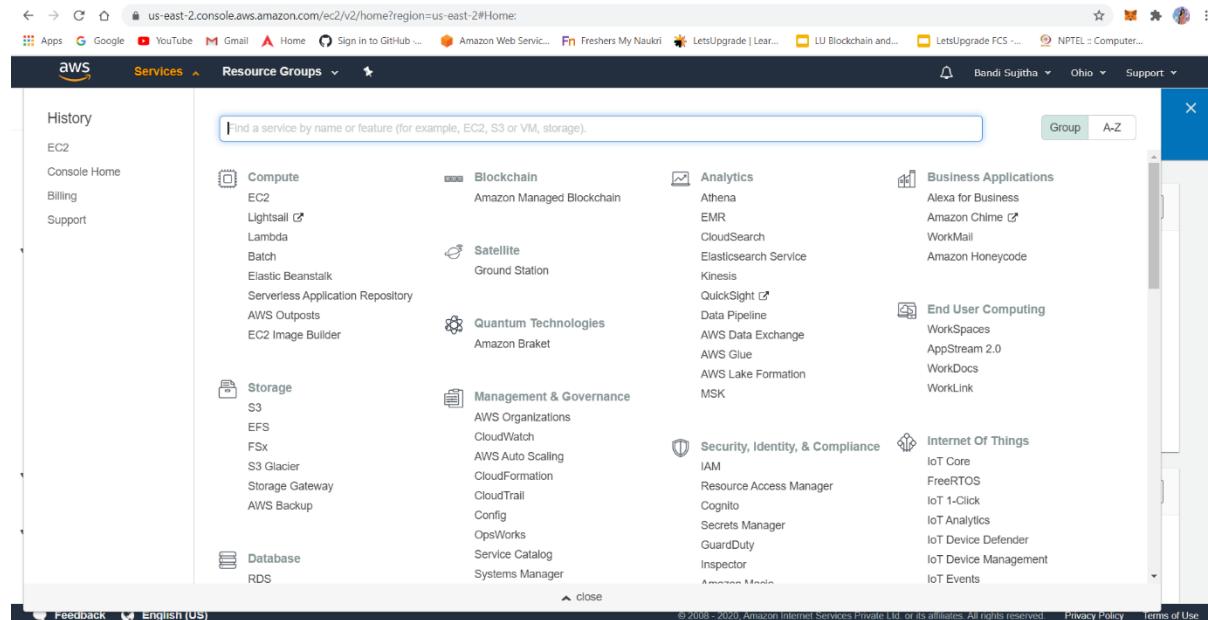


AWS Project

PROJECT 1:

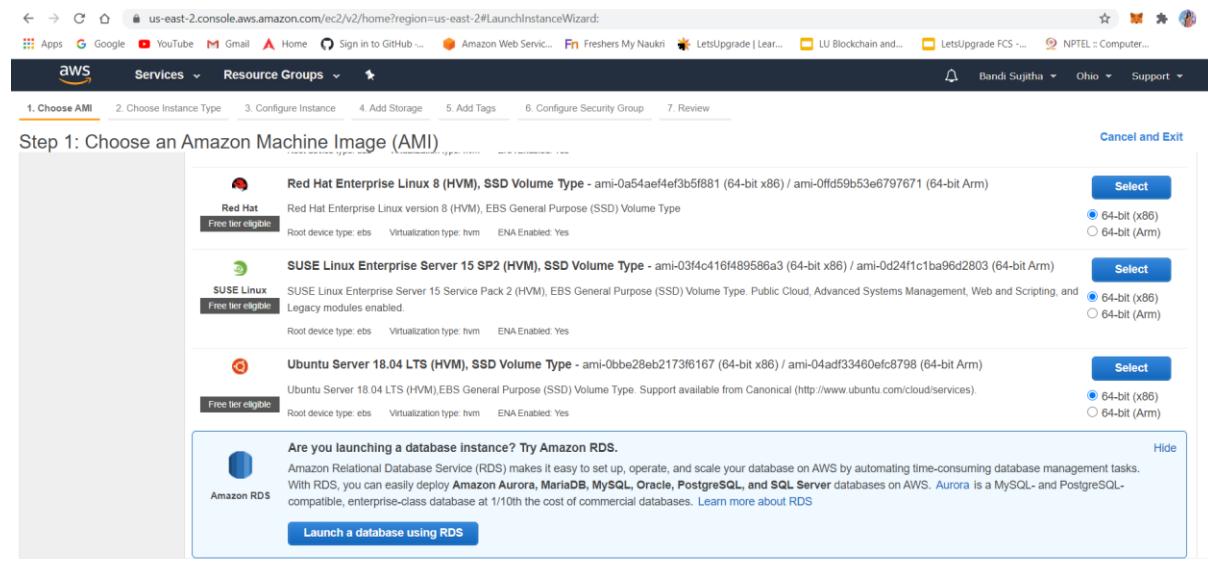
Deploying a web server in Windows instance:

Windows 2012 R2 base:



The screenshot shows the AWS Management Console homepage. The left sidebar lists services: History, EC2, Console Home, Billing, Support, Compute (EC2, Lightsail, Lambda, Batch, Elastic Beanstalk, Serverless Application Repository, AWS Outposts, EC2 Image Builder), Storage (S3, EFS, FSx, S3 Glacier, Storage Gateway, AWS Backup), and Database (RDS). The main content area displays a grid of service icons and names, including Blockchain, Analytics, Business Applications, Satellite, Quantum Technologies, Management & Governance, Security, Identity, & Compliance, Internet Of Things, and several others. A search bar at the top is empty.

Task 1: Create a windows instance using AMI :Windows 2012 R2 base



The screenshot shows the 'Step 1: Choose an Amazon Machine Image (AMI)' page of the Launch Instance Wizard. The top navigation bar includes tabs for 1. Choose AMI, 2. Choose Instance Type, 3. Configure Instance, 4. Add Storage, 5. Add Tags, 6. Configure Security Group, and 7. Review. The '1. Choose AMI' tab is selected. The page lists three AMI options: Red Hat Enterprise Linux 8 (HVM), SSD Volume Type, SUSE Linux Enterprise Server 15 SP2 (HVM), SSD Volume Type, and Ubuntu Server 18.04 LTS (HVM), SSD Volume Type. Each option has a 'Select' button and a radio button for choosing between 64-bit (x86) and 64-bit (Arm). Below the list, a section titled 'Are you launching a database instance? Try Amazon RDS.' provides information about Amazon RDS and a 'Launch a database using RDS' button.

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.](#)

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	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
<input type="checkbox"/>	General purpose	t2.large	2	8	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.xlarge	4	16	EBS only	-	Moderate	Yes
<input type="checkbox"/>	General purpose	t2.2xlarge	8	32	EBS only	-	Moderate	Yes

[Cancel](#) [Previous](#) [Review and Launch](#) [Next: Configure Instance Details](#)

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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	<input type="text" value="1"/> Launch into Auto Scaling Group
Purchasing option	<input type="checkbox"/> Request Spot Instances
Network	<input type="text" value="vpc-35ee4c5e (default)"/> Create new VPC
Subnet	<input type="text" value="No preference (default subnet in any Availability Zone)"/> Create new subnet
Auto-assign Public IP	<input type="checkbox"/> Enable Use subnet setting (Enable)
Placement group	<input type="checkbox"/> Enable
Capacity Reservation	<input type="text" value="Open"/>
Domain join directory	<input type="text" value="No directory"/> Create new directory
IAM role	<input type="text" value="None"/> Create new IAM role
Shutdown behavior	<input type="text" value="Stop"/>
Stop - Hibernate behavior	<input type="checkbox"/> Enable hibernation as an additional stop behavior
Enable termination protection	<input type="checkbox"/> Protect against accidental termination

[Cancel](#) [Previous](#) [Review and Launch](#) [Next: Add Storage](#)

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[us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#LaunchInstanceWizard:](#)

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-09cc48699d0f64e95	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.

Cancel Previous Review and Launch Next: Add Tags

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[us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#LaunchInstanceWizard:](#)

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
This resource currently has no tags					

Choose the Add tag button or [click to add a Name tag](#). Make sure your [IAM policy](#) includes permissions to create tags.

Add Tag (Up to 50 tags maximum)

Cancel Previous Review and Launch Next: Configure Security Group

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us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#LaunchInstanceWizard

Services ▾ Resource Groups ▾

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	Protocol	Port Range	Source	Description
All traffic	All	0 - 65535	Anywhere	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

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us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#LaunchInstanceWizard

Services ▾ Resource Groups ▾

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.

⚠ Improve your instances' security. Your security group, launch-wizard-4, 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](#)

⚠ Your instance configuration is not eligible for the free usage tier.
To launch an instance that's eligible for the free usage tier, check your AMI selection, instance type, configuration options, or storage devices. Learn more about [free usage tier](#) eligibility and usage restrictions.

AMI Details [Edit AMI](#)
Microsoft Windows Server 2012 R2 Base - ami-00133f78ad56a5c91
 Microsoft Windows 2012 R2 Standard edition with 64-bit architecture. [English]
Root Device Type: ebs Virtualization type: hvm
If you plan to use this AMI for an application that benefits from Microsoft License Mobility, fill out the [License Mobility Form](#). Don't show me this again

Instance Type [Edit instance type](#)

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

Cancel Previous Launch

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Screenshot of the AWS EC2 Launch Instance Wizard - Step 7: Review Instance Launch.

The page shows the configuration details for launching an instance:

- Number of instances:** 1
- Purchasing option:** On demand
- Network:** vpc-35ee4c5e
- Subnet:** No preference (default subnet in any Availability Zone)
- EBS-optimized:** No
- Monitoring:** No
- Termination protection:** No
- Shutdown behavior:** Stop
- Stop / Hibernate behavior:** Disabled
- Capacity Reservation:** open
- IAM role:** None
- Domain Join directory:** None
- Tenancy:** default
- T2/T3 Unlimited:** Disabled
- Host ID:** Host resource group name
- Affinity:** Off
- Metadata accessible:** Enabled
- Metadata version:** V1 and V2 (token optional)
- Metadata token response hop limit:** 1
- User data:** Assign Public IP: Yes; Assign IPv6 IP: Use subnet setting (Enable)

Buttons at the bottom: Cancel, Previous, Launch.

Below the wizard, a screenshot of a Windows taskbar shows a connection to "ec2-18-216-254-1.rdp".

Screenshot of the AWS EC2 Launch Instance Wizard - Step 7: Review Instance Launch.

The page shows the configuration details for launching an instance, with a modal dialog overlay:

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.

Choose an existing key pair: Select a key pair: letsupgrade

I acknowledge that I have access to the selected private key file (letsupgrade.pem), and that without this file, I won't be able to log into my instance.

Buttons: Cancel, Launch Instances.

Below the wizard, a screenshot of a Windows taskbar shows a connection to "letsupgrade.pem".

Task 2 :Launch the Windows instance using RDP

The screenshot shows the AWS Management Console with the EC2 service selected. On the left, the navigation pane is open, showing options like New EC2 Experience, EC2 Dashboard, Events, Tags, Limits, Instances (selected), Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, Images (AMIs), and Elastic Block Store (Volumes). The main content area displays a table of instances. One instance is highlighted: "Windows" (i-0e07900971e46a123) with an "i2 micro" instance type, located in "us-east-2c", and is currently "running". Below the table, a detailed view of the selected instance is shown in a modal window. The modal has tabs for Description, Status Checks, Monitoring, and Tags. Under the Description tab, it shows the Instance ID (i-0e07900971e46a123), Public DNS (ec2-18-216-254-104.us-east-2.compute.amazonaws.com), and Instance state (running). It also lists the Instance type (i2 micro) and IPv4 Public IP (18.216.254.104). The status checks section indicates 2/2 checks passed. The monitoring tab shows the CloudWatch Metrics and CloudWatch Logs metrics for this instance. The tags tab shows no tags are assigned.

This screenshot shows the same AWS EC2 interface as above, but with a modal dialog box overlaid. The dialog is titled "Connect to your instance > Get Password". It asks for a "Connection method": "A standalone RDP client" (radio button selected) or "Session Manager". Below this, it says "The following Key Pair was associated with this instance when it was created." and shows the "Key Name" as "letsupgrade.pem". It provides instructions: "In order to retrieve your password you will need to specify the path of this Key Pair on your local machine." A "Key Pair Path" input field contains the path "letsupgrade.pem". Below this, there is a large text area containing an RSA private key, starting with "-----BEGIN RSA PRIVATE KEY-----". At the bottom of the dialog, there are "Decrypt Password" and "Close" buttons, along with "Back" and "Close" buttons at the very bottom.

us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#instances:sort=tag:Name

Services Resource Groups

New EC2 Experience Tell us what you think

EC2 Dashboard New

Events New

Tags

Limits

Instances Instances

- Instance Types
- Launch Templates
- Spot Requests
- Savings Plans
- Reserved Instances
- Dedicated Hosts New
- Capacity Reservations

Images AMIs

Elastic Block Store Volumes Snapshots

Feedback English (US)

Connect Actions

Launch Instance

Filter by tags and attributes or search by keyword

Name	Instance ID
Ubuntu	i-05fb114523b5ea9
Windows	i-0e07900971e46a123
	i-009c69f4e51dd132b

Connect to your instance

Connection method A standalone RDP client [?](#)
 Session Manager [?](#)

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 details:
Public DNS ec2-18-216-254-104.us-east-2.compute.amazonaws.com
User name Administrator
Password RFWEPD?K&L

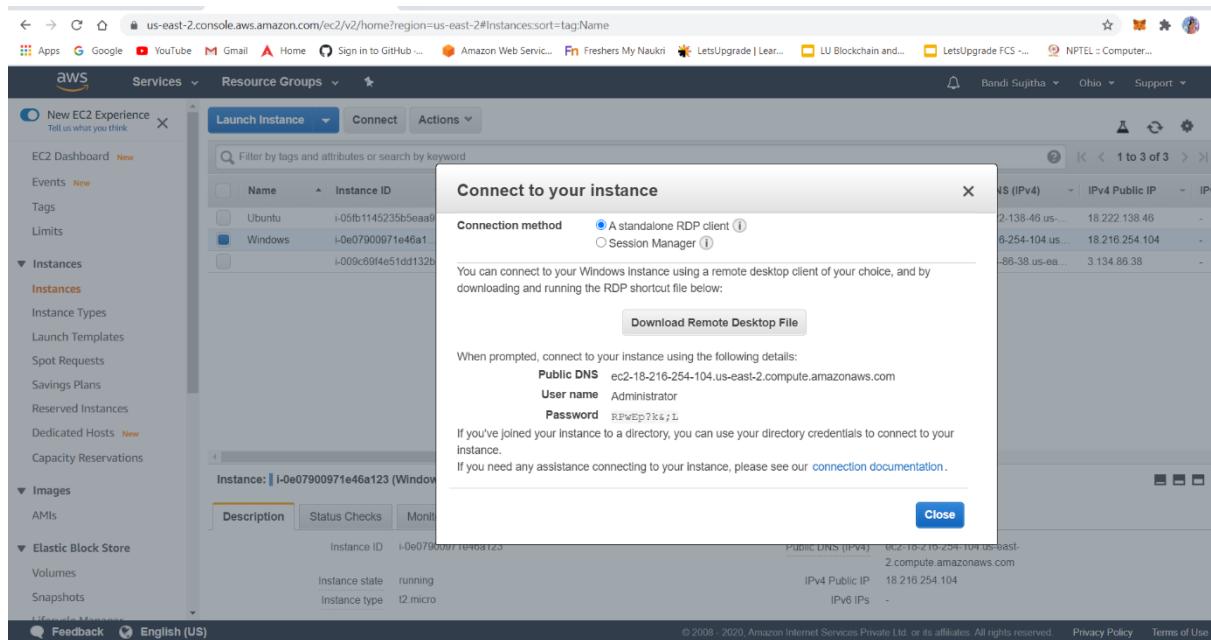
If you've joined your instance to a directory, you can use your directory credentials to connect to your instance.
If you need any assistance connecting to your instance, please see our [connection documentation](#).

Instance: i-0e07900971e46a123 (Windows) Close

Description Status Checks Monitoring

Instance ID: i-0e07900971e46a123 Public DNS (IPv4): ec2-18-216-254-104.us-east-2.compute.amazonaws.com
Instance state: running IPv4 Public IP: 18.216.254.104
Instance type: t2.micro IPv6 IPs: -

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us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#instances:sort=tag:Name

Services Resource Groups

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Tags

Limits

Instances Instances

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- Spot Requests
- Savings Plans
- Reserved Instances
- Dedicated Hosts New
- Capacity Reservations

Images AMIs

Elastic Block Store Volumes Snapshots

Feedback English (US)

Connect Actions

Launch Instance

Filter by tags and attributes or search by keyword

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)	IPv4 Public IP	IPv6 IP
Ubuntu	i-05fb114523b5ea9	Remote Desktop Connection	us-east-2	stopped	Passing	None	ec2-18-222-138-46.us-east-2.compute.amazonaws.com	18.222.138.46	-
Windows	i-0e07900971e46a123	Remote Desktop Connection	us-east-2	running	Passing	None	ec2-18-216-254-104.us-east-2.compute.amazonaws.com	18.216.254.104	-
	i-009c69f4e51dd132b	Remote Desktop Connection	us-east-2	stopped	Passing	None	ec2-3-134-86-38.us-east-2.compute.amazonaws.com	3.134.86.38	-

The publisher of this remote connection can't be identified. Do you want to connect anyway?

This remote connection could harm your local or remote computer. Do not connect unless you know where this connection came from or have used it before.

Publisher: Unknown publisher
Type: Remote Desktop Connection
Remote computer: ec2-18-216-254-104.us-east-2.compute.amazonaws.com

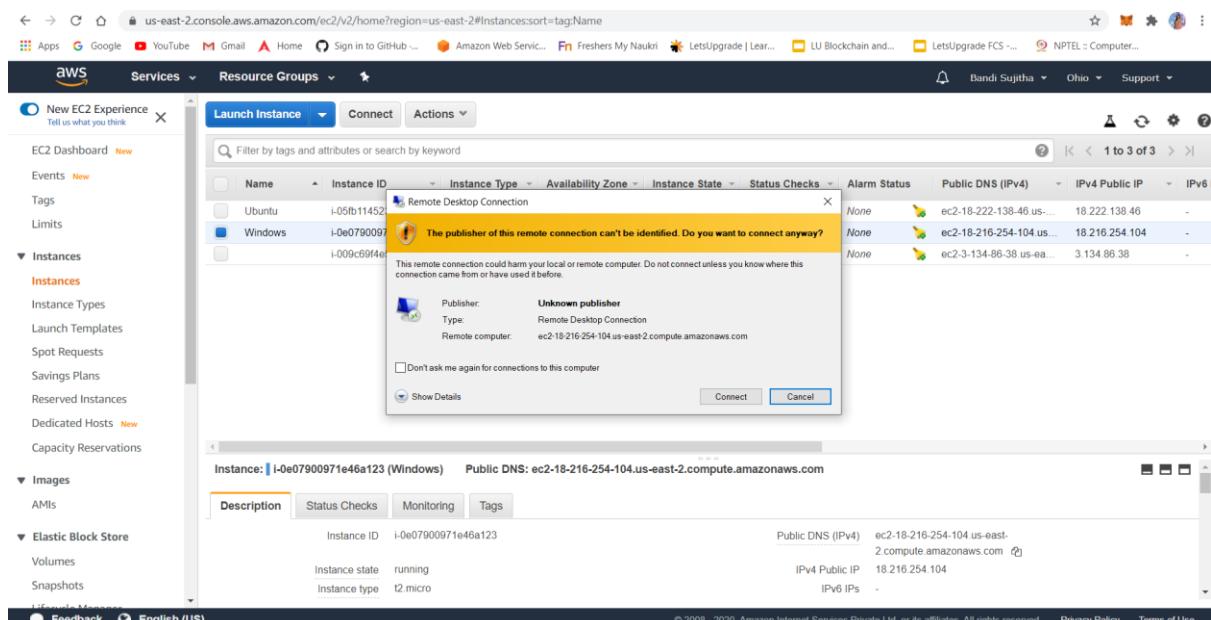
Don't ask me again for connections to this computer
[Show Details](#) Connect Cancel

Instance: i-0e07900971e46a123 (Windows) Public DNS: ec2-18-216-254-104.us-east-2.compute.amazonaws.com

Description Status Checks Monitoring Tags

Instance ID: i-0e07900971e46a123 Public DNS (IPv4): ec2-18-216-254-104.us-east-2.compute.amazonaws.com
Instance state: running IPv4 Public IP: 18.216.254.104
Instance type: t2.micro IPv6 IPs: -

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us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#instances:sort=tag:Name

New EC2 Experience Tell us what you think

Services Resource Groups

EC2 Dashboard New

Events New

Tags

Limits

Instances Instances

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances

Dedicated Hosts New

Capacity Reservations

Images AMIs

Elastic Block Store Volumes Snapshots

Feedback English (US)

Launch Instance Connect Actions

Windows Security Enter your credentials

These credentials will be used to connect to ec2-18-216-254-104.us-east-2.compute.amazonaws.com.

Administrator

LAPTOP-4K4ARV2S\Administrator

Remember me

More choices OK Cancel

Instance: i-0e07900971e46a123 (Windows) Public DNS: ec2-18-216-254-104.us-east-2.compute.amazonaws.com

Description Status Checks Monitoring Tags

Instance ID: i-0e07900971e46a123 Public DNS (IPv4): ec2-18-216-254-104.us-east-2.compute.amazonaws.com

Instance state: running IPv4 Public IP: 18.216.254.104

Instance type: t2.micro IPv6 IPs: -

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The screenshot shows the AWS EC2 console interface. A modal dialog box titled 'Windows Security' is open, asking for 'Enter your credentials'. It contains fields for 'Administrator' (with a password input field), 'LAPTOP-4K4ARV2S\Administrator', and a 'Remember me' checkbox. Below the dialog is a table of instances, with one row selected ('Windows' instance). The table includes columns for 'Status Checks', 'Alarm Status', 'Public DNS (IPv4)', 'IPv4 Public IP', and 'IPv6'. At the bottom of the page, there's a footer with copyright information and links to 'Privacy Policy' and 'Terms of Use'.

us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#instances:sort=tag:Name

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Instances Instances

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances

Dedicated Hosts New

Capacity Reservations

Images AMIs

Elastic Block Store Volumes Snapshots

Feedback English (US)

Launch Instance Connect Actions

Windows Security Enter your credentials

These credentials will be used to connect to ec2-18-216-254-104.us-east-2.compute.amazonaws.com.

Administrator

LAPTOP-4K4ARV2S\Administrator

Remember me

More choices OK Cancel

Instance: i-0e07900971e46a123 (Windows) Public DNS: ec2-18-216-254-104.us-east-2.compute.amazonaws.com

Description Status Checks Monitoring Tags

Instance ID: i-0e07900971e46a123 Public DNS (IPv4): ec2-18-216-254-104.us-east-2.compute.amazonaws.com

Instance state: running IPv4 Public IP: 18.216.254.104

Instance type: t2.micro IPv6 IPs: -

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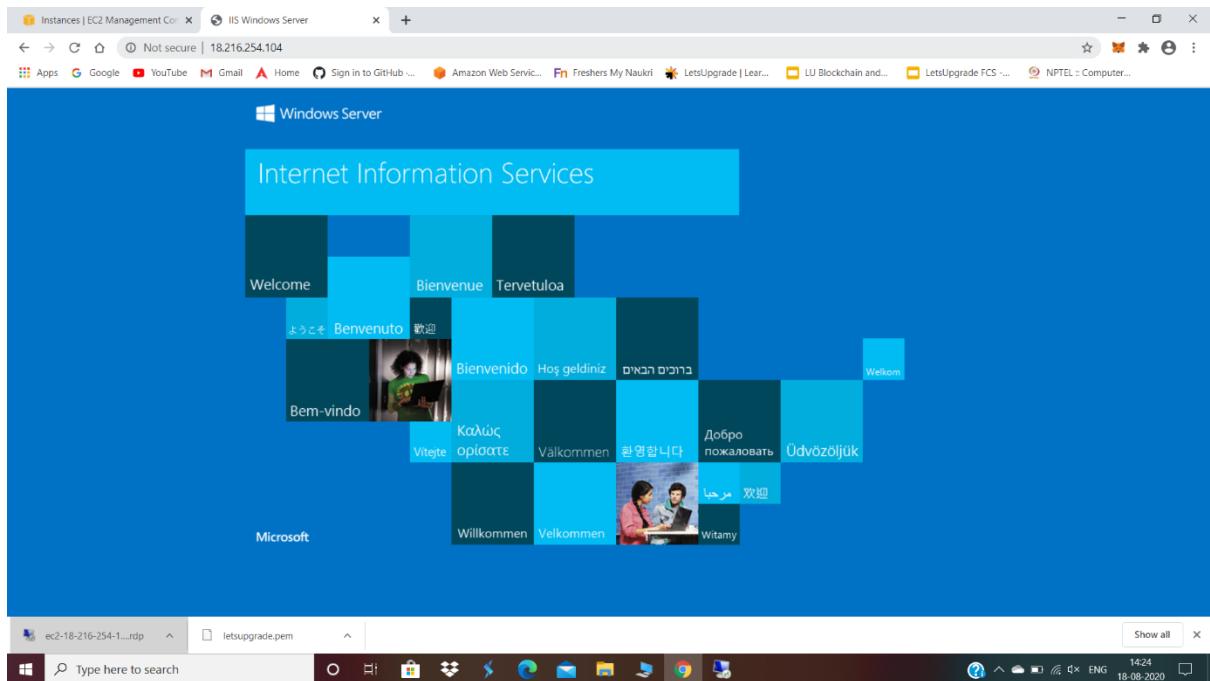
The screenshot shows the AWS EC2 console interface. A modal dialog box titled 'Windows Security' is open, asking for 'Enter your credentials'. It contains fields for 'Administrator' (with a password input field), 'LAPTOP-4K4ARV2S\Administrator', and a 'Remember me' checkbox. Below the dialog is a table of instances, with one row selected ('Windows' instance). The table includes columns for 'Status Checks', 'Alarm Status', 'Public DNS (IPv4)', 'IPv4 Public IP', and 'IPv6'. At the bottom of the page, there's a footer with copyright information and links to 'Privacy Policy' and 'Terms of Use'.

The screenshot shows the AWS EC2 console interface. A 'Remote Desktop Connection' dialog box is open, prompting the user to connect despite certificate errors. The dialog includes a 'View certificate...' button, a checkbox for 'Don't ask me again for connections to this computer', and 'Yes' and 'No' buttons. In the background, the EC2 dashboard lists instances and provides details for a selected Windows instance (i-0e07900971e46a123). The instance is running and has an IPv4 Public IP of 18.216.254.104.

Task3:Install IIS web server using Powershell ISE

The screenshot shows the AWS EC2 console with a Windows PowerShell window in the Integrated Scripting Environment (ISE). The command 'Install-WindowsFeature -name Web-Server -IncludeManagementTools' is run, and the output indicates success, showing the installation of the Web Server role and its management tools. The PowerShell window title is 'Administrator: Windows PowerShell'. The background shows the EC2 instance details for i-0e07900971e46a123, which is running and has an IPv4 Public IP of 18.216.254.104.

Task4: Verify successful installation of IIS Web Server

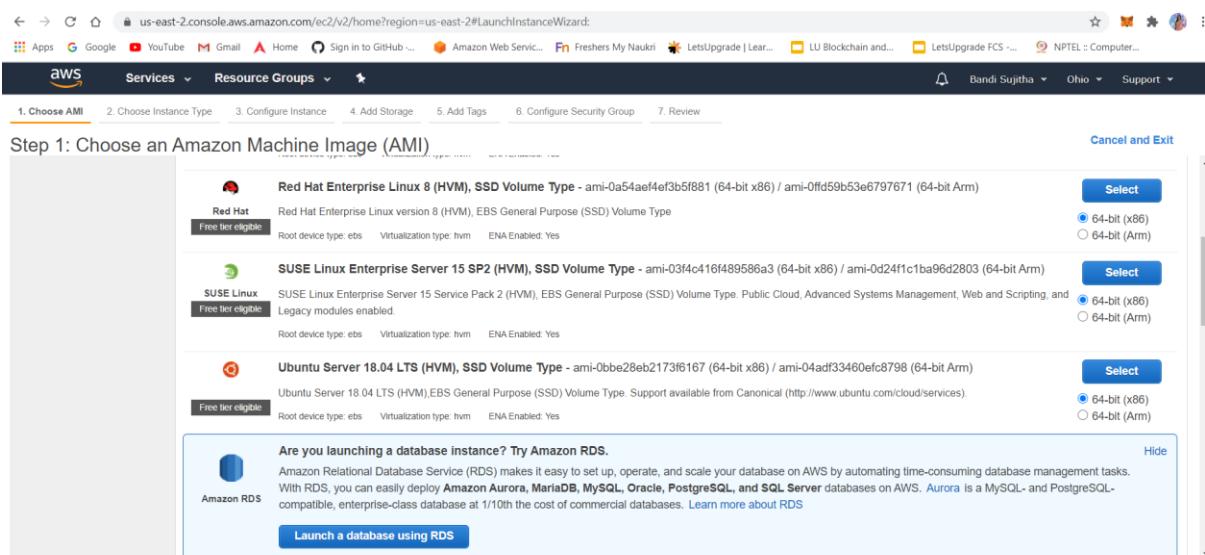


PROJECT 2:

Deploying a web server in Windows instance

Ubuntu Server 18.04 LTS (HVM)

Task1: Create a windows instance using AMI :Ubuntu Server 18.04 LTS (HVM)



Step 1: Choose an Amazon Machine Image (AMI)

Red Hat Enterprise Linux 8 (HVM), SSD Volume Type - ami-0a54ae4ef3b5f881 (64-bit x86) / ami-0ffd59b53e6797671 (64-bit Arm)
Root device type: ebs Virtualization type: hvm ENA Enabled: Yes
 64-bit (x86) 64-bit (Arm)

SUSE Linux Enterprise Server 15 SP2 (HVM), SSD Volume Type - ami-03f4c416f489586a3 (64-bit x86) / ami-0d24f1c1ba96d2803 (64-bit Arm)
Root device type: ebs Virtualization type: hvm ENA Enabled: Yes
 64-bit (x86) 64-bit (Arm)

Ubuntu Server 18.04 LTS (HVM), SSD Volume Type - ami-0bbe28eb2173f6167 (64-bit x86) / ami-04ad33460efc8798 (64-bit Arm)
Root device type: ebs Virtualization type: hvm ENA Enabled: Yes
 64-bit (x86) 64-bit (Arm)

Amazon RDS

Are you launching a database instance? Try Amazon RDS.
Amazon Relational Database Service (RDS) makes it easy to set up, operate, and scale your database on AWS by automating time-consuming database management tasks. With RDS, you can easily deploy **Amazon Aurora, MariaDB, MySQL, Oracle, PostgreSQL, and SQL Server** databases on AWS. **Aurora** is a MySQL- and PostgreSQL-compatible, enterprise-class database at 1/10th the cost of commercial databases. [Learn more about RDS](#)

Launch a database using RDS

The screenshot shows the AWS EC2 Management Console with three instances listed:

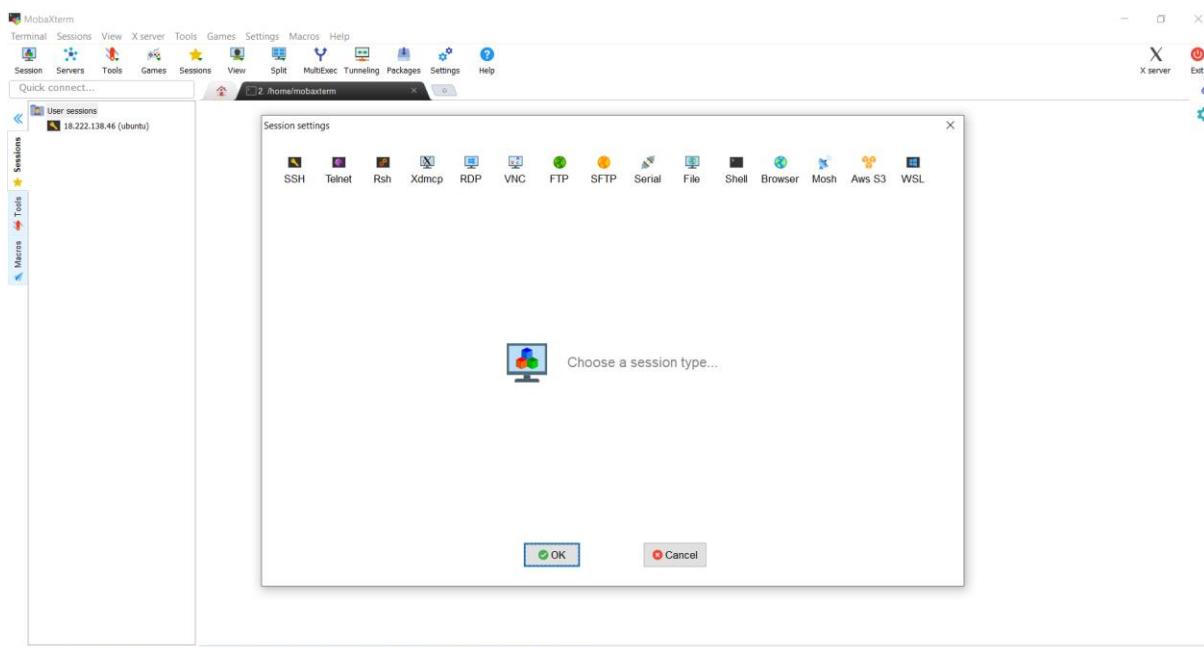
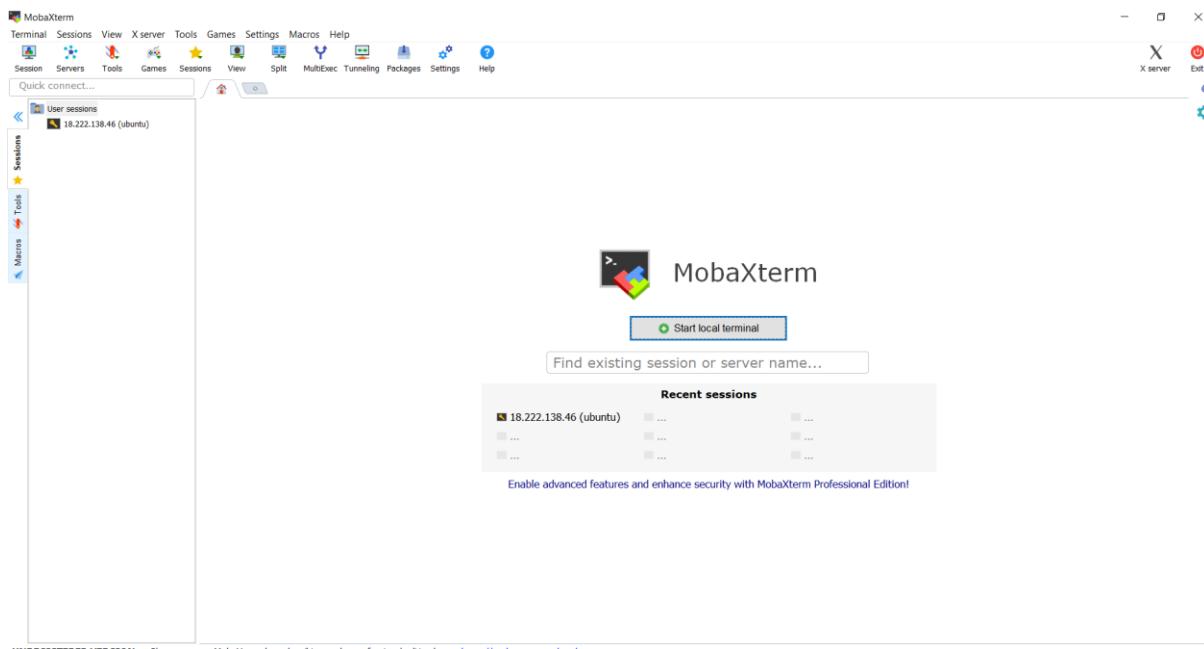
Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)	IPv4 Public IP	IPv6
Ubuntu	i-05fb1145235b58ea9	t2.micro	us-east-2c	running	2/2 checks ...	None	ec2-18-222-138-46.us...	18.222.138.46	-
Windows	i-0e07900971e46a1...	t2.micro	us-east-2c	running	2/2 checks ...	None	ec2-18-216-254-104.us...	18.216.254.104	-
	i-009cd9f4e51dd132b	t2.micro	us-east-2c	running	2/2 checks ...	None	ec2-3-134-86-38.us-ea...	3.134.86.38	-

Below the table, a message says "Select an instance above". At the bottom, there's a Windows taskbar with icons for File Explorer, Task View, Start, Taskbar settings, and a search bar.

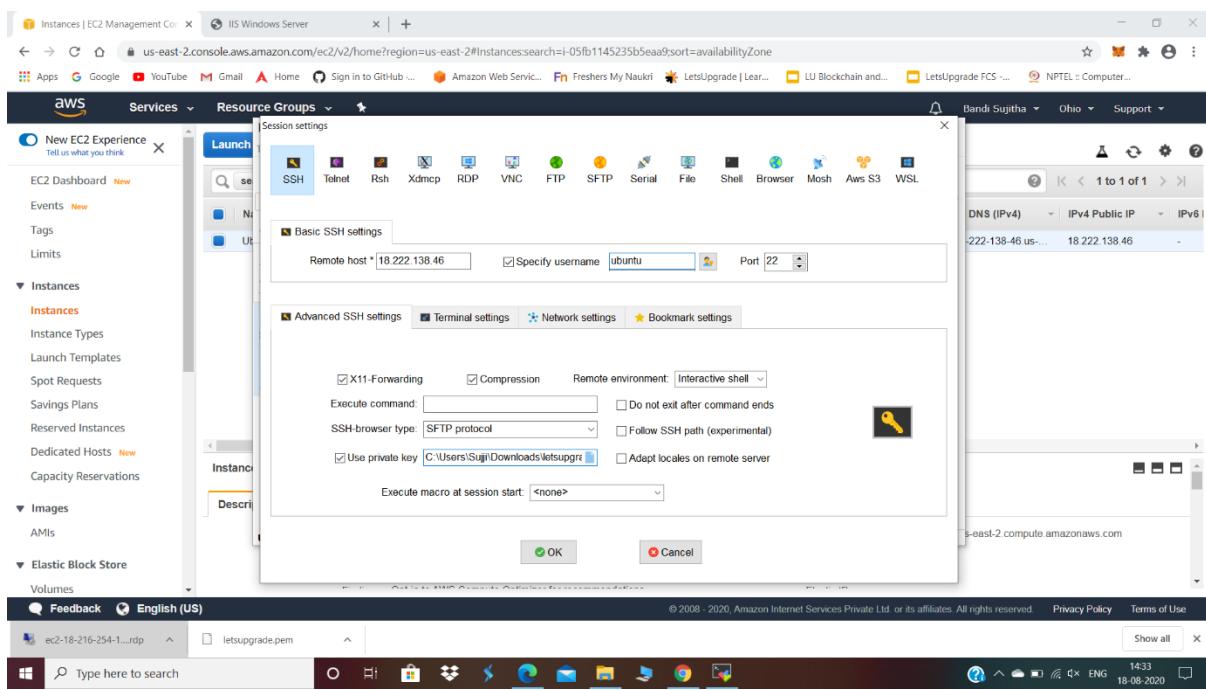
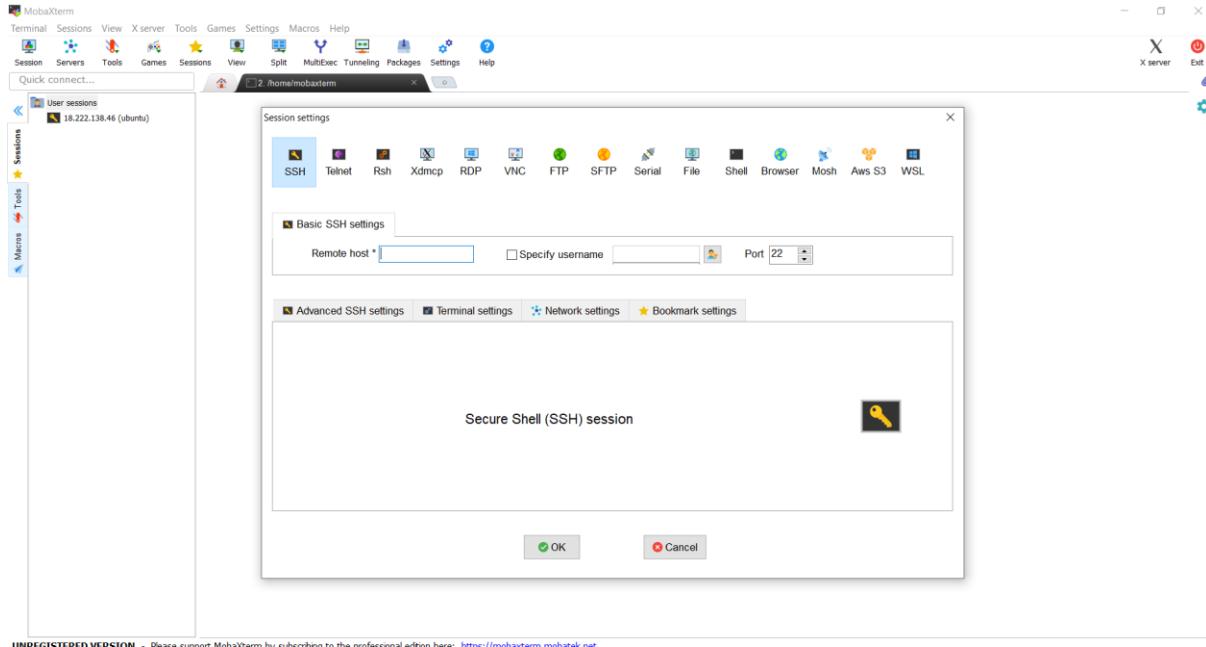
Task2: Download and install MobaXterm Portable Edition

The screenshot shows the MobaXterm website with the following content:

- MobaXterm Home Edition**
- Download MobaXterm Home Edition (current version):**
 - MobaXterm Home Edition v20.3 (Portable edition)** (blue button)
 - MobaXterm Home Edition v20.3 (Installer edition)** (green button)
- Download previous stable version:** [MobaXterm Portable v20.2](#) | [MobaXterm Installer v20.2](#)
- You can also get early access to the latest features and improvements by downloading MobaXterm Preview version:** [MobaXterm Preview Version](#) (orange button)
- By downloading MobaXterm software, you accept:** [MobaXterm terms and conditions](#)
- You can download MobaXterm and plugins sources:** [here](#)
- Info message:** If you use MobaXterm inside your company, you should consider subscribing to [MobaXterm Professional Edition](#); your subscription will give you access to professional support and to the "Customizer" software. This customizer will allow you to generate personalized versions of MobaXterm including your own logo, your default settings and your welcome message. Please [contact us](#) for more information.



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Task3: Install nginx web server using bash

The screenshot shows a MobaXterm session titled "18.222.138.46 (ubuntu)". The terminal window displays the output of a package manager (likely apt) as it installs the nginx package. The log shows various packages being unpacked and configured, including libnginx-mod-http-image-filter, libnginx-mod-mail, libnginx-mod-stream, and libnginx-core. The process ends with the creation of an systemd service file at /lib/systemd/system/nginx.service and the configuration of several system services.

```
Preparing to unpack .../12-libnginx-mod-http-image-filter_1.14.0-0ubuntu1.7_amd64.deb ...
Unpacking libnginx-mod-http-image-filter (1.14.0-0ubuntu1.7) ...
Selecting previously unselected package libnginx-mod-mail ...
Preparing to unpack .../13-libnginx-mod-http-xslt-filter_1.14.0-0ubuntu1.7_amd64.deb ...
Unpacking libnginx-mod-http-xslt-filter (1.14.0-0ubuntu1.7) ...
Selecting previously unselected package libnginx-mod-mail ...
Preparing to unpack .../14-libnginx-mod-mail_1.14.0-0ubuntu1.7_amd64.deb ...
Unpacking libnginx-mod-mail (1.14.0-0ubuntu1.7) ...
Selecting previously unselected package libnginx-mod-stream ...
Preparing to unpack .../15-libnginx-mod-stream_1.14.0-0ubuntu1.7_amd64.deb ...
Unpacking libnginx-mod-stream (1.14.0-0ubuntu1.7) ...
Selecting previously unselected package nginx-core ...
Preparing to unpack .../16-nginx-core_1.14.0-0ubuntu1.7_amd64.deb ...
Unpacking nginx-core (1.14.0-0ubuntu1.7) ...
Selecting previously unselected package nginx ...
Preparing to unpack .../17-nginx_1.14.0-0ubuntu1.7_all.deb ...
Unpacking nginx (1.14.0-0ubuntu1.7) ...
Setting up libjbig2:amd64 (2.1-3.1build1) ...
Setting up fonts-dejavu-core (2.37-1) ...
Setting up libfontconfig1:amd64 (2.12.6-0ubuntu1.7) ...
Created symlink /etc/systemd/system/multi-user.target.wants/nginx.service → /lib/systemd/system/nginx.service.
Setting up libjpeg-turbo0:amd64 (1.5.2-0ubuntu5.18.04.4) ...
Setting up libnginx-mod-mail (1.14.0-0ubuntu1.7) ...
Setting up libxml2:amd64 (1.13.5.12+1) ...
Setting up libnginx-mod-http-xslt-filter (1.14.0-0ubuntu1.7) ...
Setting up libnginx-mod-http-geip (1.14.0-0ubuntu1.7) ...
Setting up libwebp5:amd64 (0.6.1-2) ...
Setting up libjpeg8:amd64 (8c-2ubuntu8) ...
Setting up libfontconfig1:amd64 (2.12.6-0ubuntu1.7) ...
Setting up libnginx-mod-stream (1.14.0-0ubuntu1.7) ...
Setting up libtiff5:amd64 (4.0.9-Subnub0.3) ...
Setting up libfontconfig1:amd64 (2.12.6-0ubuntu1.7) ...
Setting up libgd3:amd64 (2.2.25-4ubuntu0.4) ...
Setting up libnginx-mod-http-image-filter (1.14.0-0ubuntu1.7) ...
Setting up nginx-core (1.14.0-0ubuntu1.7) ...
Setting up nginx (1.14.0-0ubuntu1.7) ...
Processing triggers for systemd (237-3ubuntu18.42) ...
Processing triggers for man-db (2.8.3-2ubuntu0.1) ...
Processing triggers for ufw (0.36-0ubuntu0.18.04.1) ...
Processing triggers for unbound (0.100.0-21) ...
Processing triggers for libe2fsck (1.42.12-1ubuntu1.2) ...
Processing triggers for libe2fsck (1.42.12-1ubuntu1.2) ...
ubuntu@ip-172-31-33-192:~$
```

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Task4: Verify successful installation of nginx

