

Task -1 :

Deploying a web-server in windows instance..

Windows 2012 R2 Base -

The screenshot shows the AWS CloudFormation console interface. The top navigation bar includes the AWS logo, Services dropdown, Resource Groups dropdown, and user information (Tanshka Vadwala, Ohio, Support). Below the navigation is a breadcrumb trail: 1. Choose AMI, 2. Choose Instance Type, 3. Configure Instance, 4. Add Storage, 5. Add Tags, 6. Configure Security Group, 7. Review. A 'Cancel and Exit' button is on the right.

Step 1: Choose an Amazon Machine Image (AMI)

Free tier eligible

Image	Name	Description	Select	Architecture
Windows	Microsoft Windows Server 2016 with SQL Server 2019 Enterprise - ami-063e4f7fe50ceb235	Microsoft Windows 2016 Datacenter edition, Microsoft SQL Server 2019 Enterprise. [English]	Select	64-bit (x86)
Windows	Microsoft Windows Server 2012 R2 Base - ami-00133f78ad56a5c91	Microsoft Windows 2012 R2 Standard edition with 64-bit architecture. [English]	Select	64-bit (x86)
SUSE Linux	SUSE Linux Enterprise Server 12 SP5 (HVM), SSD Volume Type - ami-0f84a134e8f9d527b	SUSE Linux Enterprise Server 12 Service Pack 5 (HVM), EBS General Purpose (SSD) Volume Type. Public Cloud, Advanced Systems Management, Web and Scripting, and Legacy modules enabled.	Select	64-bit (x86)
	Ubuntu Server 16.04 LTS (HVM), SSD Volume Type - ami-06817f01dcc7f30be	(64-bit x86) / ami-02ee7191bff040b00 (64-bit Arm)	Select	64-bit (x86) 64-bit (Arm)

The screenshot shows the Windows 10 desktop environment. The taskbar at the bottom has several pinned icons: File Explorer, Task View, Edge browser, Microsoft Store, File Explorer, Microsoft Teams, File Explorer, and Google Chrome. The search bar on the left contains the text "Type here to search". The system tray on the right shows the date (21-08-2020), time (01:20), battery status, signal strength, and network connection. The status bar at the bottom of the screen also displays the date and time.

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 <small>Free tier eligible</small>	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

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	vpc-fd72d196 (default) Create new VPC
Subnet	No preference (default subnet in any Availability Zone) Create new subnet
Auto-assign Public IP	Enable
Placement group	<input type="checkbox"/> 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	<input type="checkbox"/> Enable hibernation as an additional stop behavior

Review and Launch **Next: Add Storage**

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Step 3: Configure Instance Details

Purchasing option Request Spot Instances

Network <input type="button" value="vpc-fd72d196 (default)"/>	<input type="button" value="Create new VPC"/>
Subnet <input type="button" value="No preference (default subnet in any Availability Zone)"/>	<input type="button" value="Create new subnet"/>
Auto-assign Public IP <input type="button" value="Enable"/>	
Placement group <input type="checkbox"/> Add instance to placement group	
Capacity Reservation <input type="button" value="Open"/>	
Domain join directory <input type="button" value="No directory"/>	<input type="button" value="Create new directory"/>
IAM role <input type="button" value="None"/>	<input type="button" value="Create new IAM role"/>
Shutdown behavior <input type="button" value="Stop"/>	
Stop - Hibernate behavior <input type="checkbox"/> Enable hibernation as an additional stop behavior	
Enable termination protection <input checked="" type="checkbox"/> Protect against accidental termination	
Monitoring <input type="checkbox"/> Enable CloudWatch detailed monitoring	
Additional charges apply.	

Review and Launch

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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.

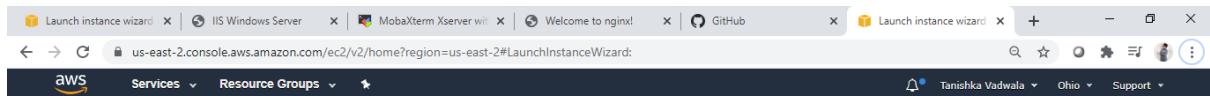
Volume Type	Device	Snapshot	Size (GiB)	Volume Type	IOPS	Throughput (MB/s)	Delete on Termination	Encryption
Root	/dev/sda1	snap-09cc48699d0f64e95	30	General Purpose SSD (gp2)	100 / 3000	N/A	<input checked="" type="checkbox"/>	Not Encrypted

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.

Review and Launch

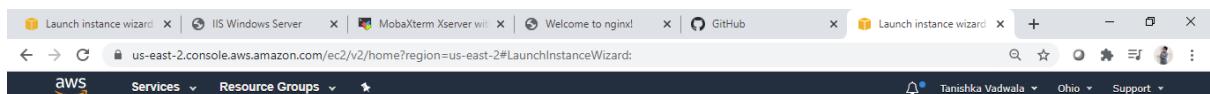
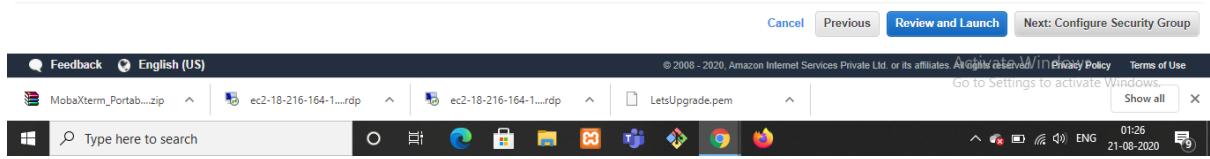
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Step 5: Add Tags

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)			



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:

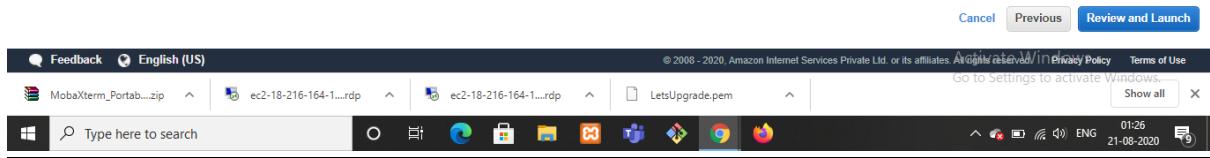
Description:

Type	Protocol	Port Range	Source	Description
All traffic	All	0 - 65535	Anywhere	0.0.0.0/0, ::/0

[Add Rule](#)



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.



Screenshot of the AWS Launch Instance Wizard Step 7: Review Instance Launch. The browser tabs show the wizard steps and the IIS Windows Server instance details.

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.

AMI Details

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

Instance Type: EC2-Optimized Available | Network Performance: Standard | Edit instance type

Launch

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Windows Start Type here to search Taskbar 01:26 ENG 21-08-2020

Screenshot of the AWS Launch Instance Wizard Step 7: Review Instance Launch. A modal dialog is open for selecting a key pair.

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](#).

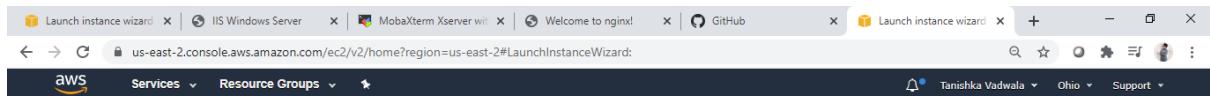
Choose an existing key pair
Select a key pair
[LetsUpgrade]
 I acknowledge that I have access to the selected private key file (LetsUpgrade.pem), and that without this file, I won't be able to log into my instance.

Cancel **Launch Instances**

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Launch Status

Your instances are now launching
The following instance launches have been initiated: i-0f68c7d8cd126da5 [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

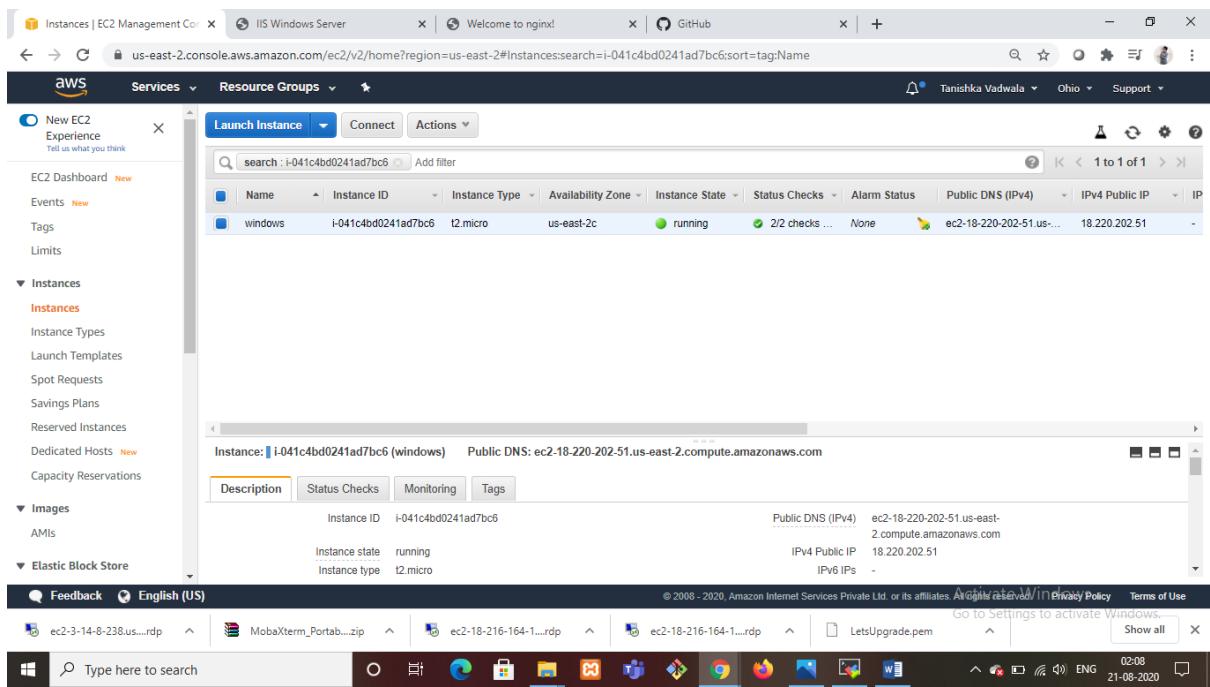
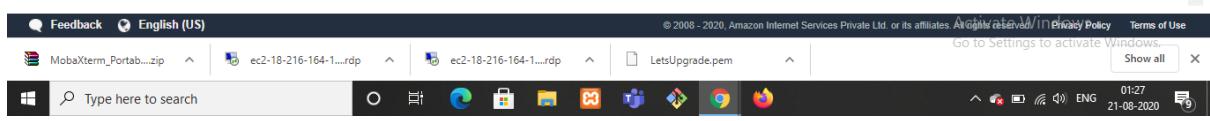
Your instances are launching, and it may take a few minutes until they are in the running state, when they will be ready for you to use. Usage hours on your new instances will start immediately and continue to accrue until you stop or terminate your instances.

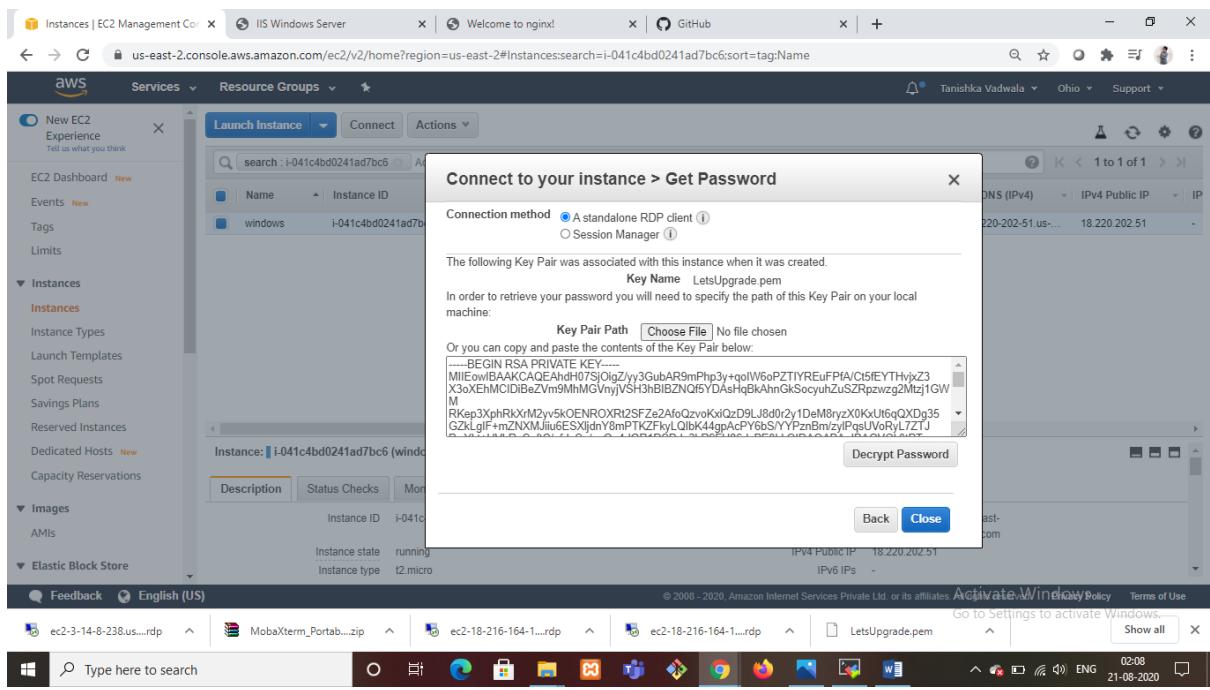
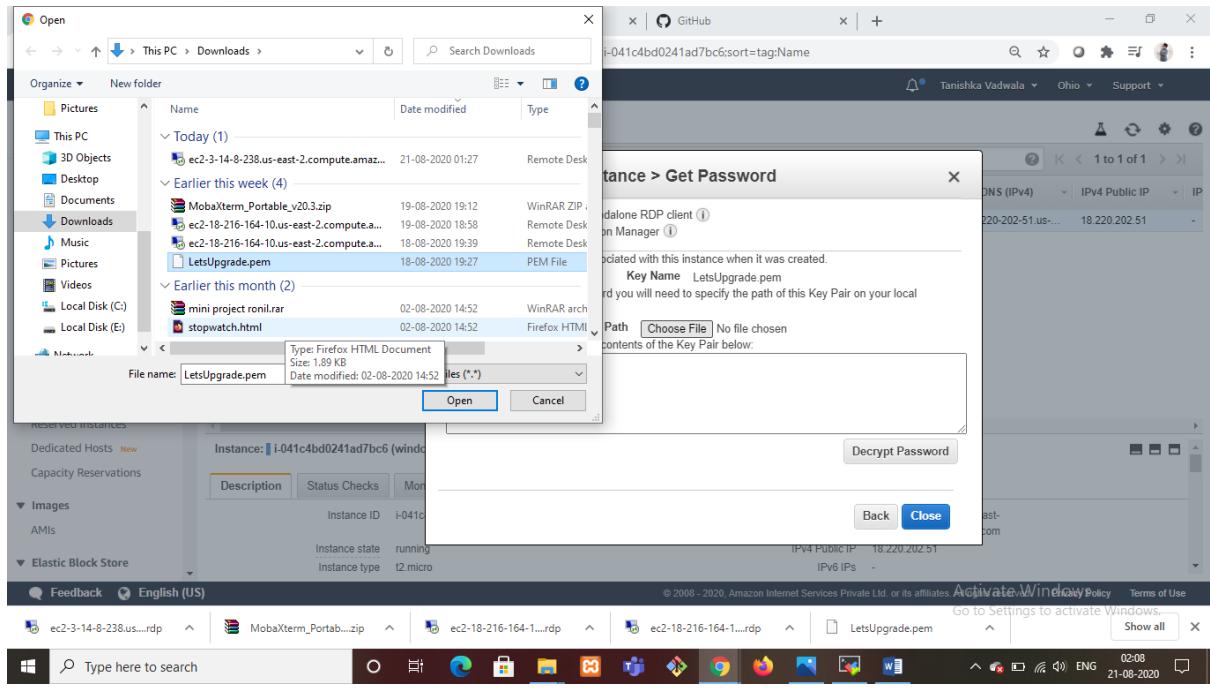
Click [View Instances](#) to monitor your instances' status. Once your instances are in the running state, you can connect to them from the Instances screen. [Find out](#) how to connect to your instances.

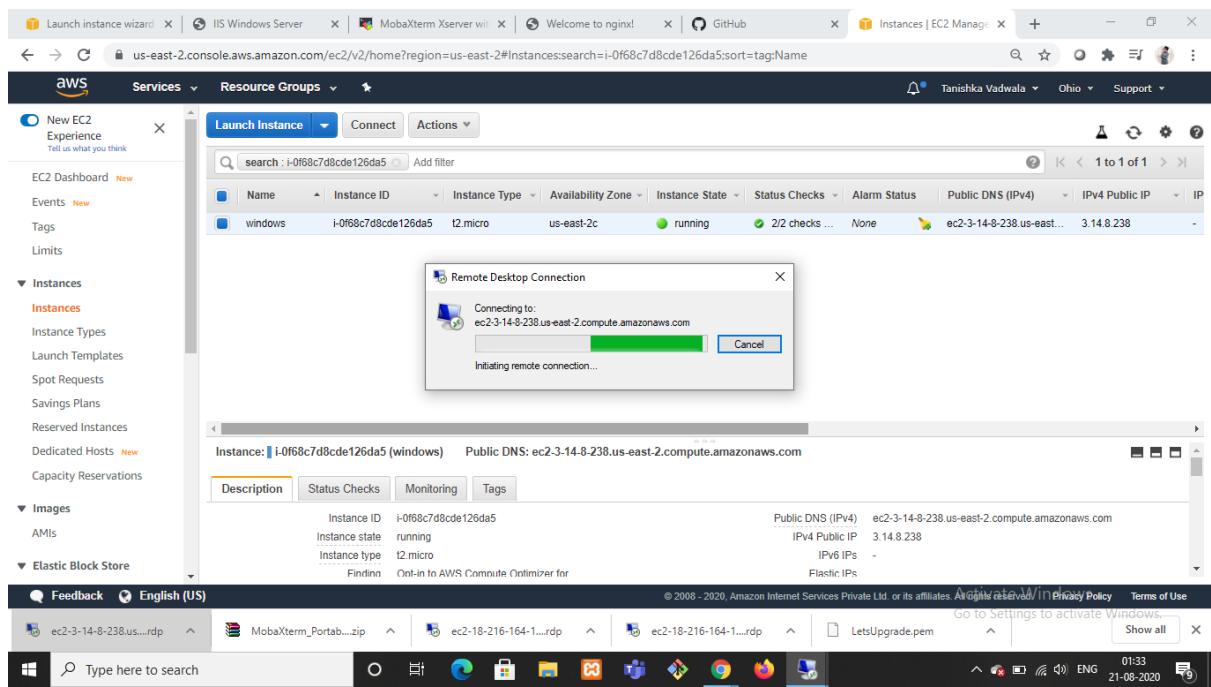
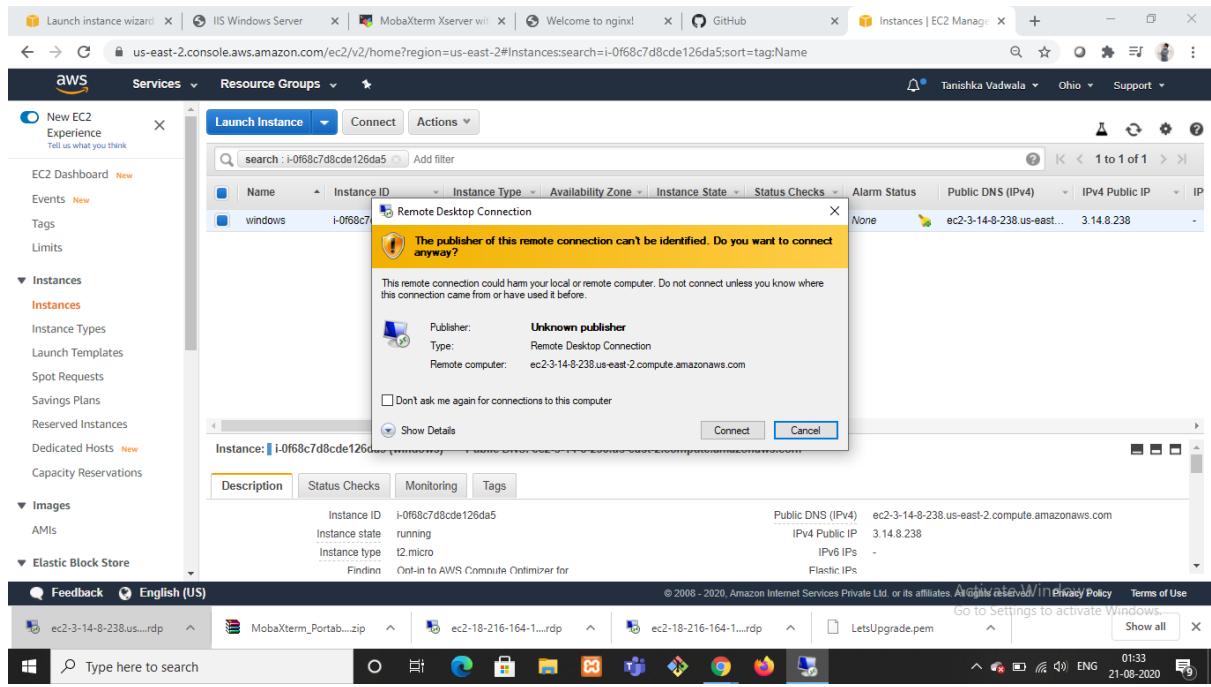
Here are some helpful resources to get you started

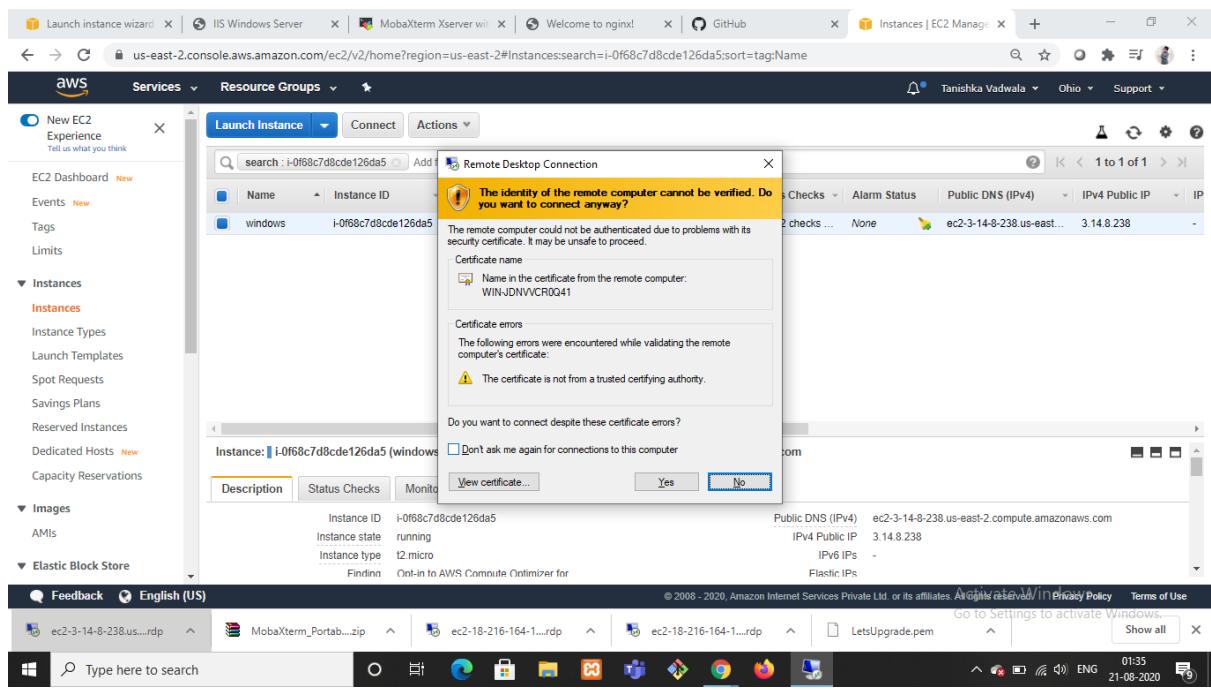
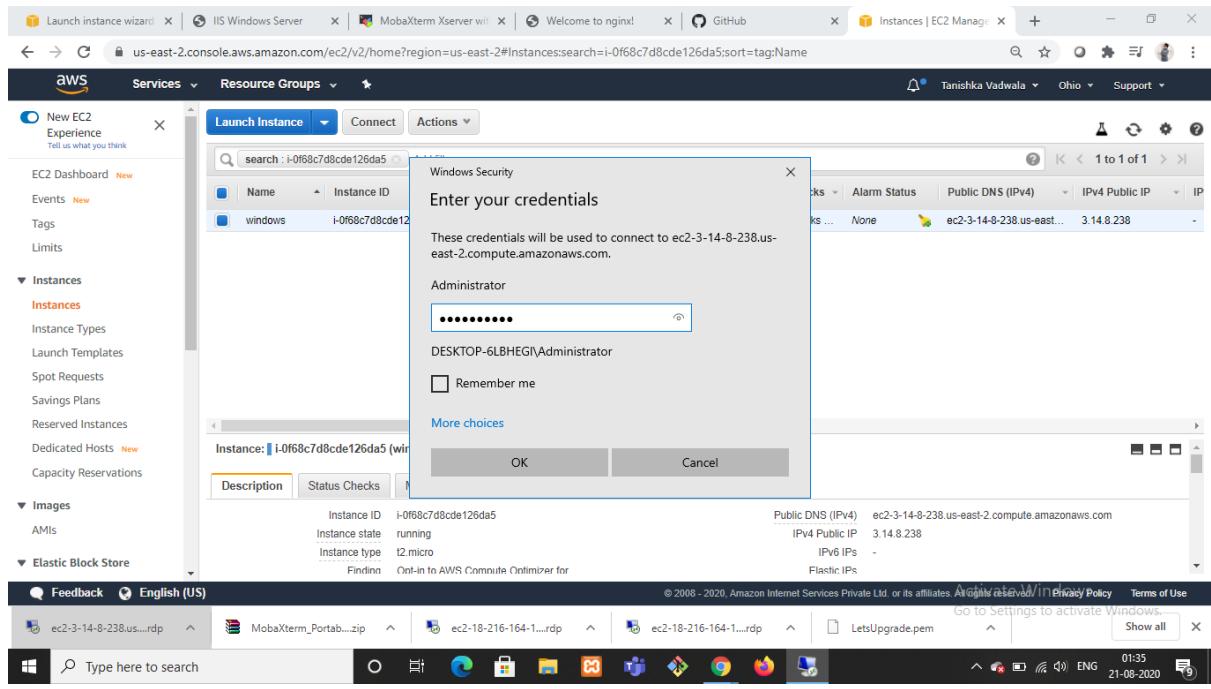
- [How to connect to your Windows instance](#)
- [Learn about AWS Free Usage Tier](#)
- [Amazon EC2: User Guide](#)
- [Amazon EC2: Microsoft Windows Guide](#)
- [Amazon EC2: Discussion Forum](#)

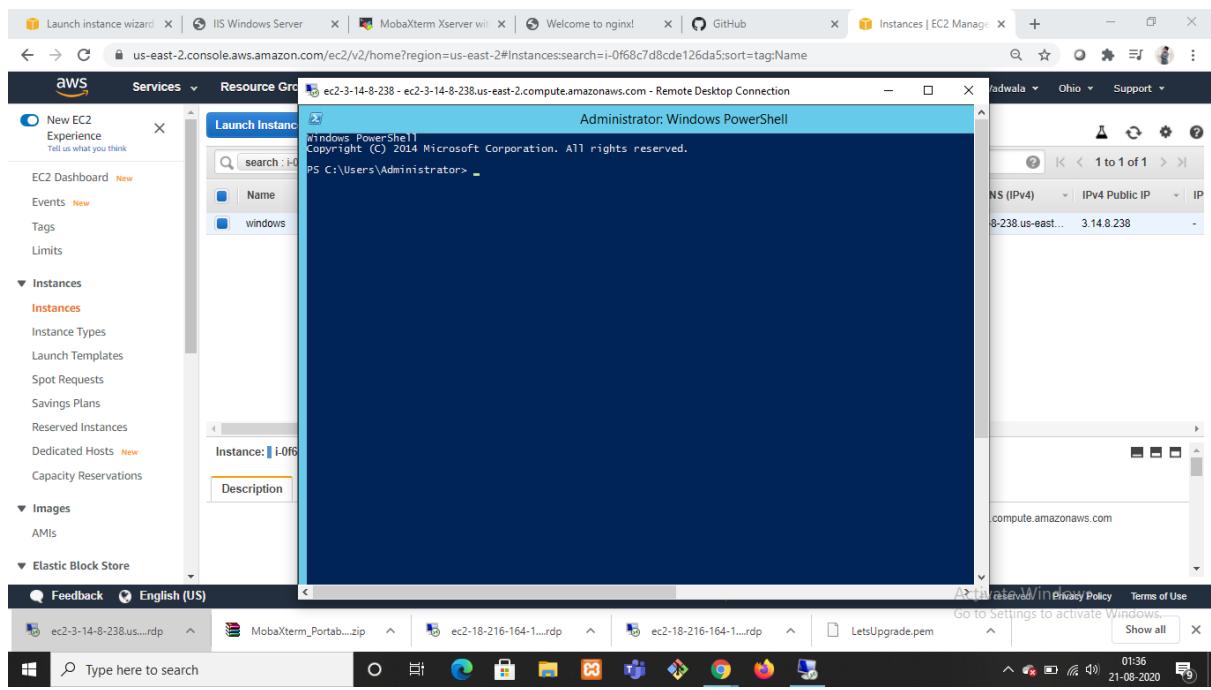
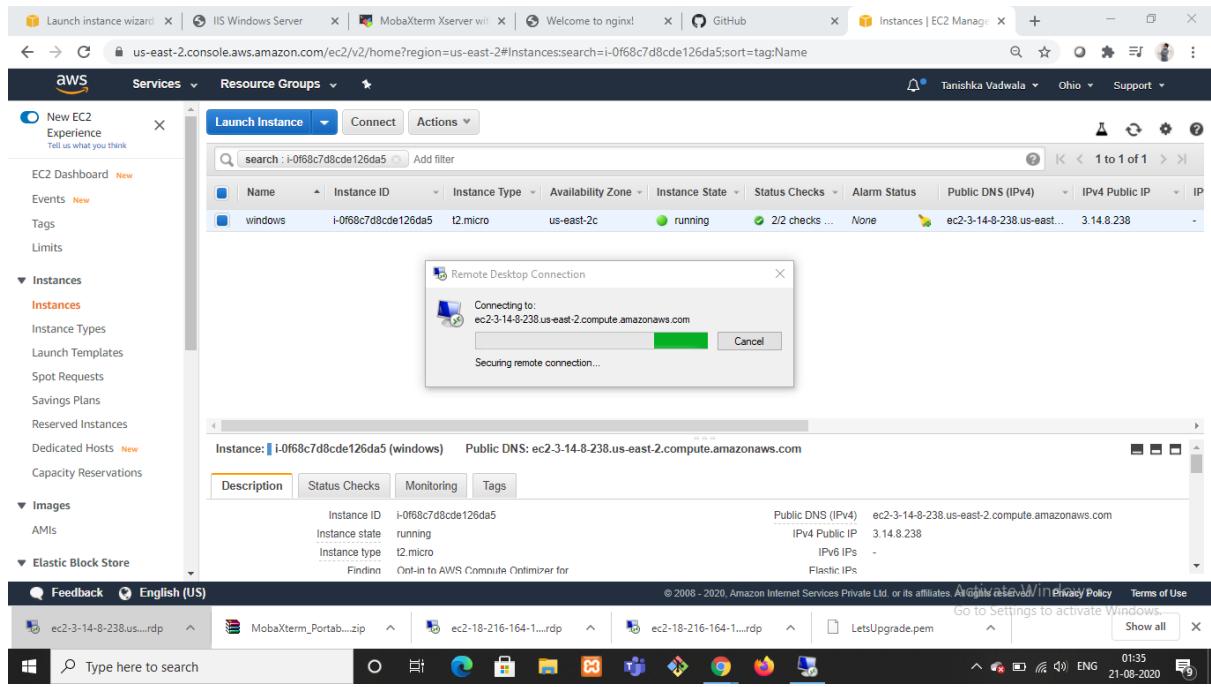
While your instances are launching you can also

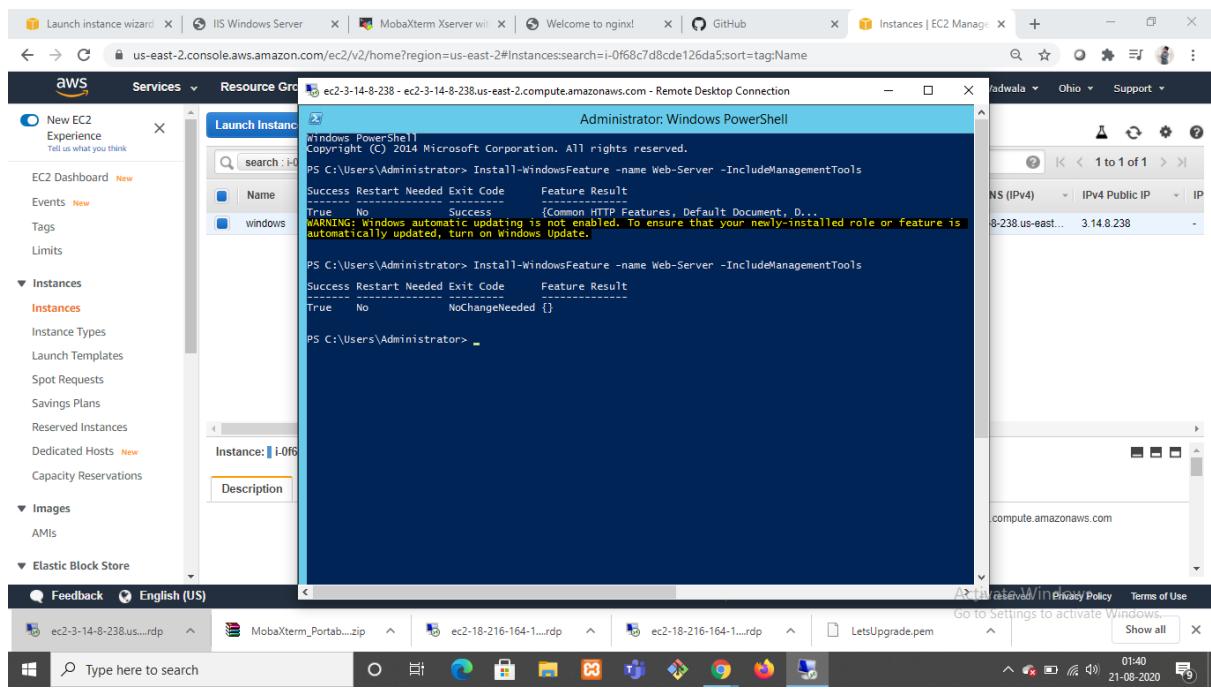
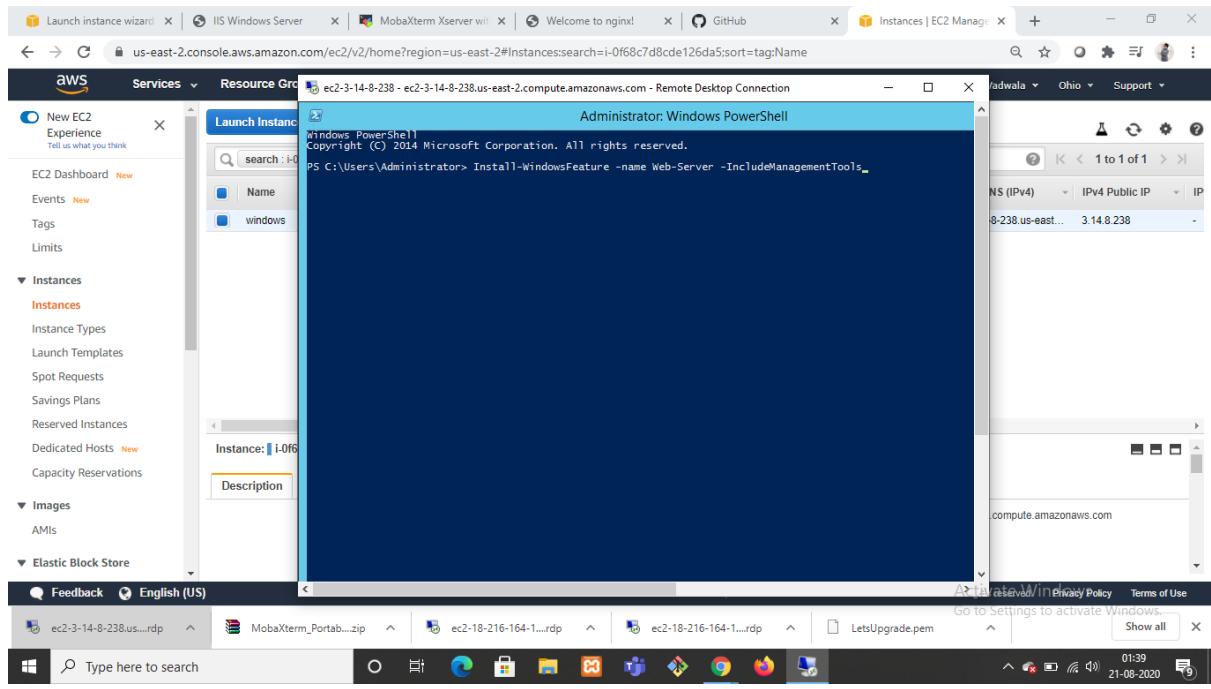


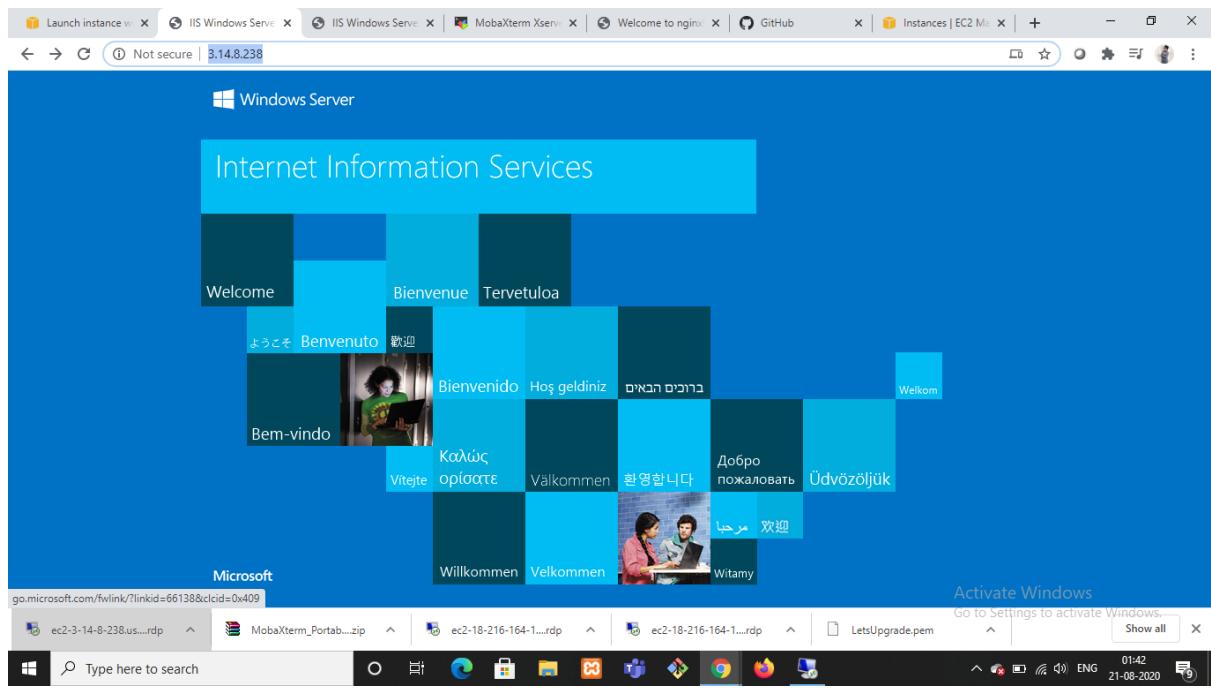








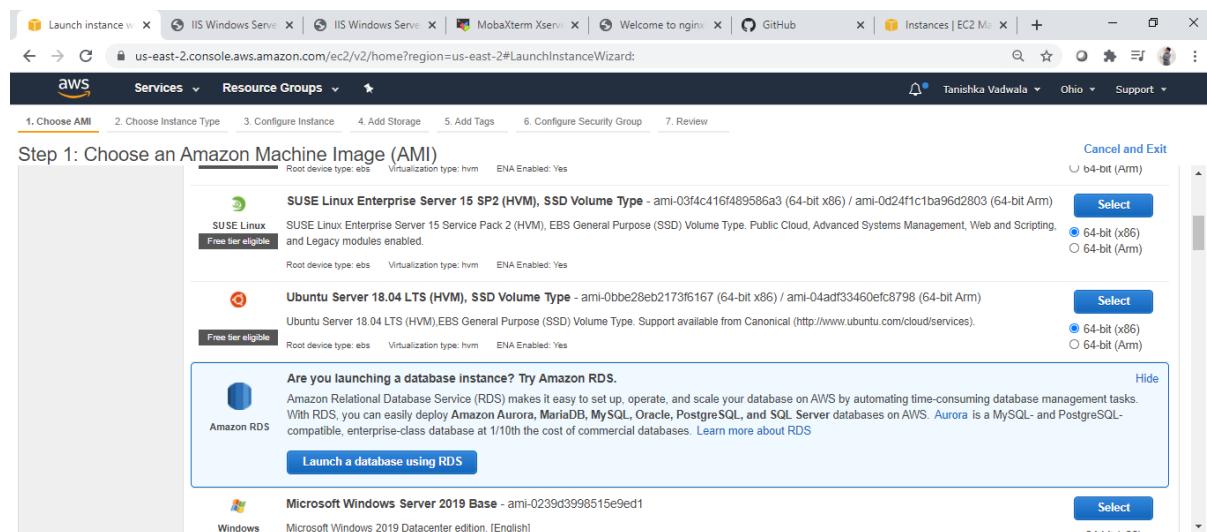




Task -2 :

Deploying a web-server in windows instance..

Ubuntu server 18.04 LTS (HVM)



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 ShowHide 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
General purpose	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
General purpose	t2.micro <small>Free tier eligible</small>	1	1	EBS only	-	Low to Moderate	Yes
General purpose	t2.small	1	2	EBS only	-	Low to Moderate	Yes
General purpose	t2.medium	2	4	EBS only	-	Low to Moderate	Yes
General purpose	t2.large	2	8	EBS only	-	Low to Moderate	Yes
General purpose	t2.xlarge	4	16	EBS only	-	Moderate	Yes

Cancel Previous Review and Launch Next: Configure Instance Details

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Type here to search 01:44 ENG 21-08-2020

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-fd72d196 (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

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

Cancel Previous Review and Launch Next: Add Storage

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Type here to search 01:45 ENG 21-08-2020

The screenshot shows the AWS Launch Instance Wizard at Step 4: Add Storage. The top navigation bar includes tabs for Launch instance, IIS Windows Server, IIS Windows Server, MobaXterm Xserver, Welcome to nginx!, GitHub, Instances | EC2 Management, and Support. The main heading is "Step 4: Add Storage". Below it, a sub-instruction reads: "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." A table displays the current storage configuration:

Volume Type	Device	Snapshot	Size (GiB)	Volume Type	IOPS	Throughput (MB/s)	Delete on Termination	Encryption
Root	/dev/sda1	snap-0cd98f931a8fffc8	8	General Purpose SSD (gp2)	100 / 3000	N/A	<input checked="" type="checkbox"/>	Not Encrypted

A button labeled "Add New Volume" is visible. A callout box 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." At the bottom, there are "Cancel", "Previous", "Review and Launch" (highlighted in blue), and "Next: Add Tags" buttons.

The screenshot shows the AWS Launch Instance Wizard at Step 5: Add Tags. The URL in the browser is us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#LaunchInstanceWizard. The AWS logo is at the top left, followed by 'Services' and 'Resource Groups'. Below the navigation bar are seven tabs: 1. Choose AMI, 2. Choose Instance Type, 3. Configure Instance, 4. Add Storage, 5. Add Tags (which is active), 6. Configure Security Group, and 7. Review. The main content area has a heading 'Step 5: Add Tags' and a sub-instruction: 'A tag consists of a case-sensitive key-value pair. For example, you could define a tag with key = Name and value = Webserver.' It also states: '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.' There are input fields for 'Key' (128 characters maximum) and 'Value' (256 characters maximum). A message below says 'This resource currently has no tags'. At the bottom, there's a note: 'Choose the Add tag button or [click here](#) to add a Name tag. Make sure your IAM policy includes permissions to create tags.' An 'Add Tag' button is at the bottom left, with a note '(Up to 50 tags maximum)'.

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 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.

[Feedback](#) [English \(US\)](#)

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Go to Settings to activate Windows. [Show all](#)

01:45 ENG 21-08-2020

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.

AMI Details

Ubuntu Server 18.04 LTS (HVM), SSD Volume Type - ami-0bbe28eb2173f6167

Free tier eligible Ubuntu Server 18.04 LTS (HVM), EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>).

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	Variable	1	1	EBS only	-	Low to Moderate

Security Groups

[Edit security groups](#)

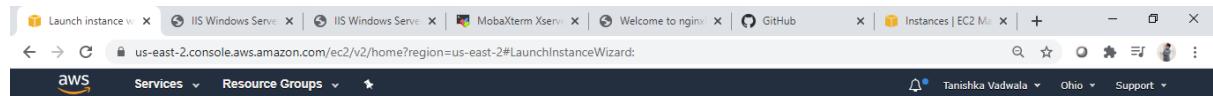
[Cancel](#) [Previous](#) [Launch](#)

[Feedback](#) [English \(US\)](#)

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Go to Settings to activate Windows. [Show all](#)

01:45 ENG 21-08-2020



Launch Status

Your instances are now launching
The following instance launches have been initiated: i-0c3408ce3da739634 [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.

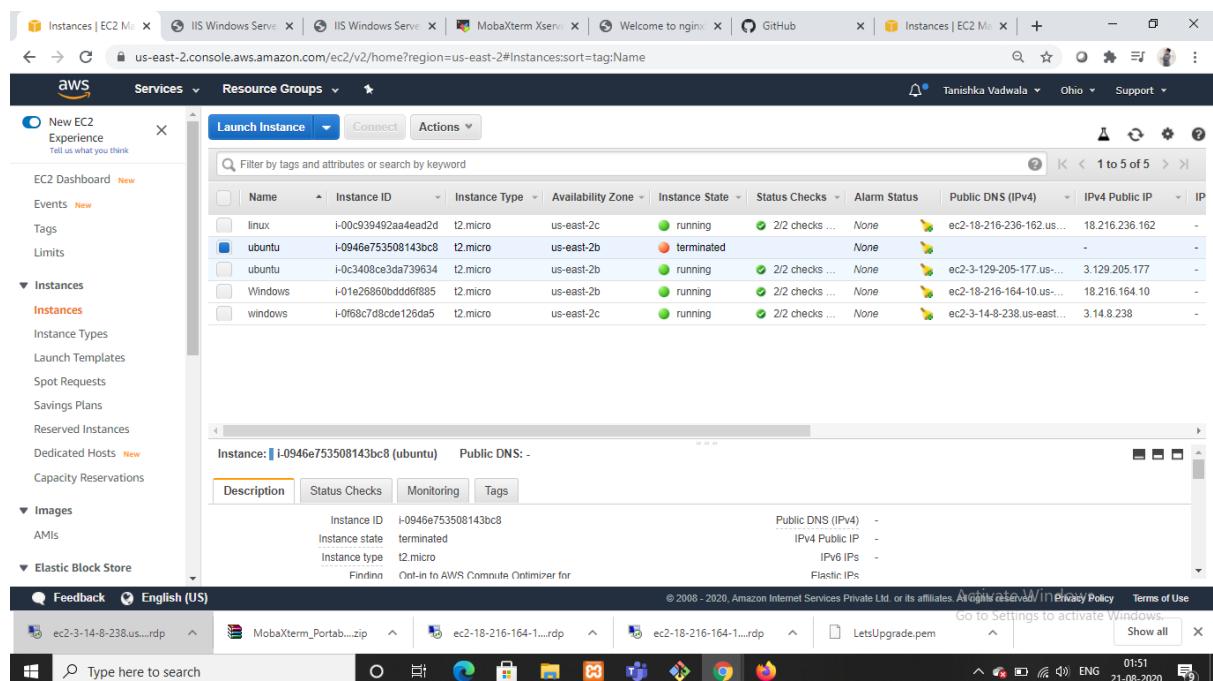
Click [View Instances](#) to monitor your instances' status. Once your instances are in the **running** state, you can connect to them from the Instances screen. [Find out](#) how to connect to your instances.

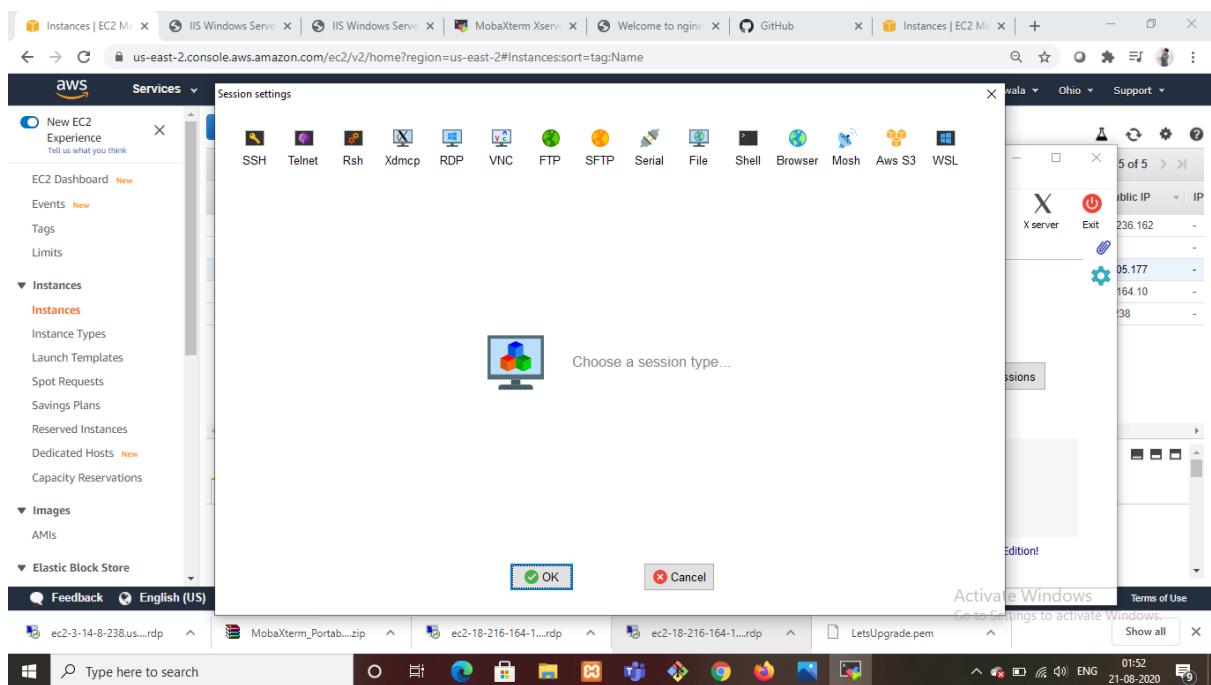
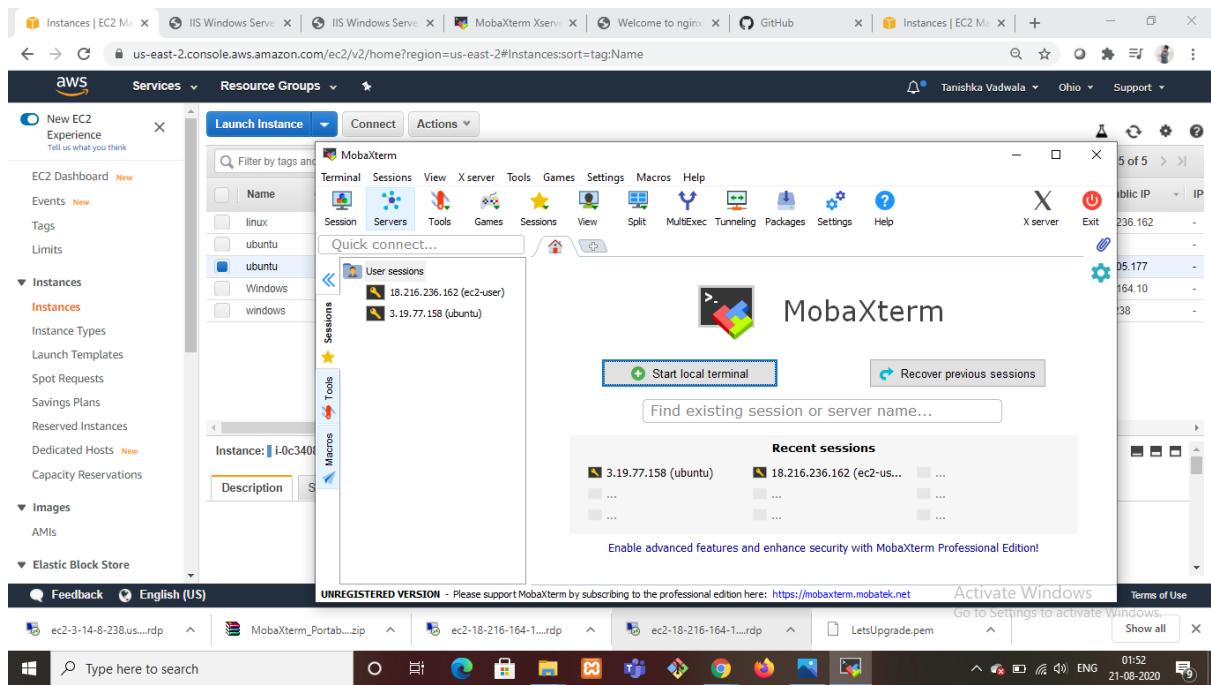
Here are some helpful resources to get you started

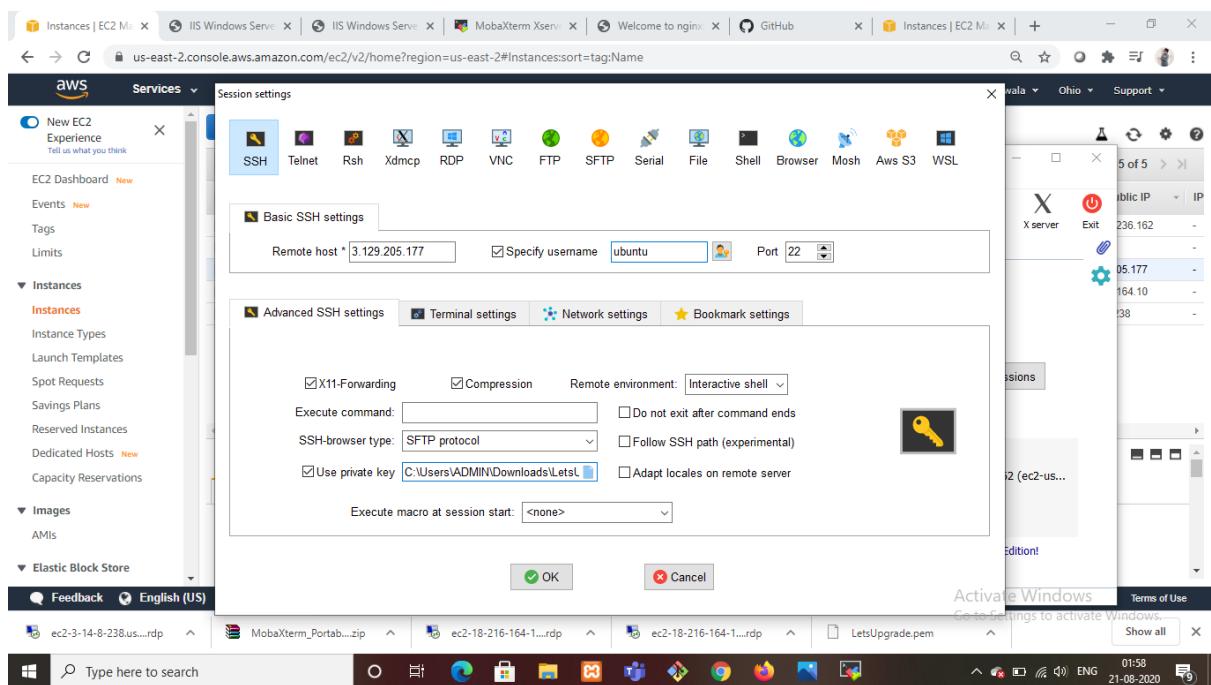
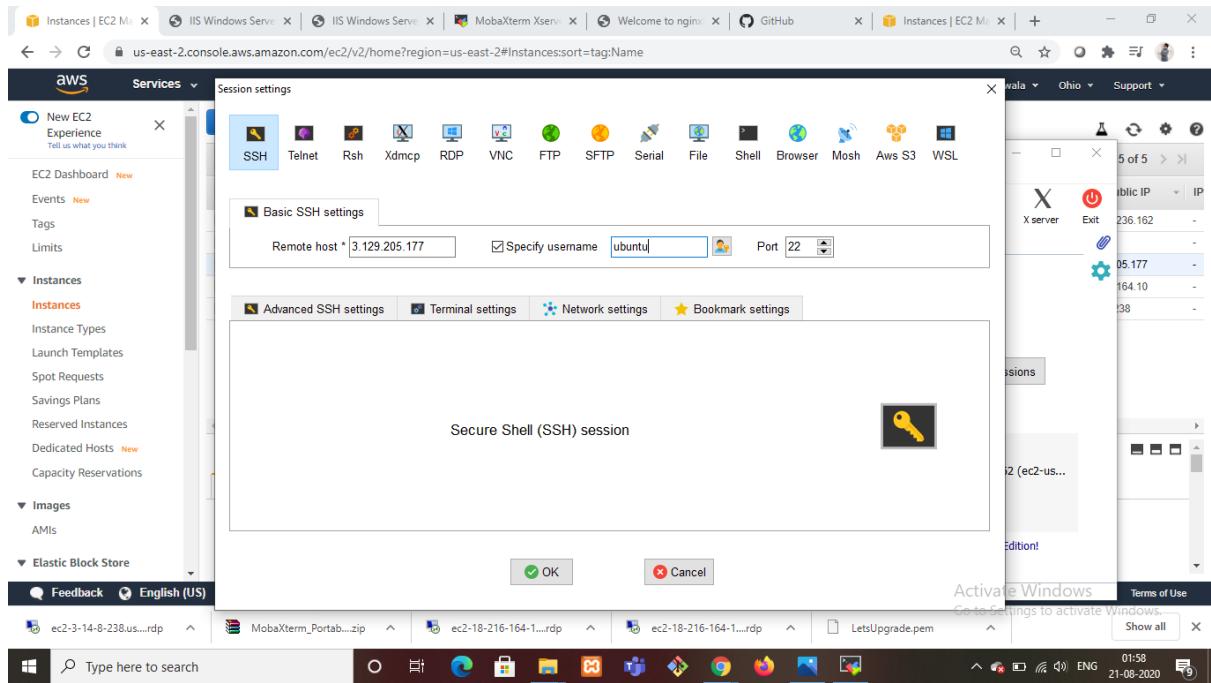
- [How to connect to your Linux instance](#)
- [Amazon EC2: User Guide](#)
- [Learn about AWS Free Usage Tier](#)
- [Amazon EC2: Discussion Forum](#)

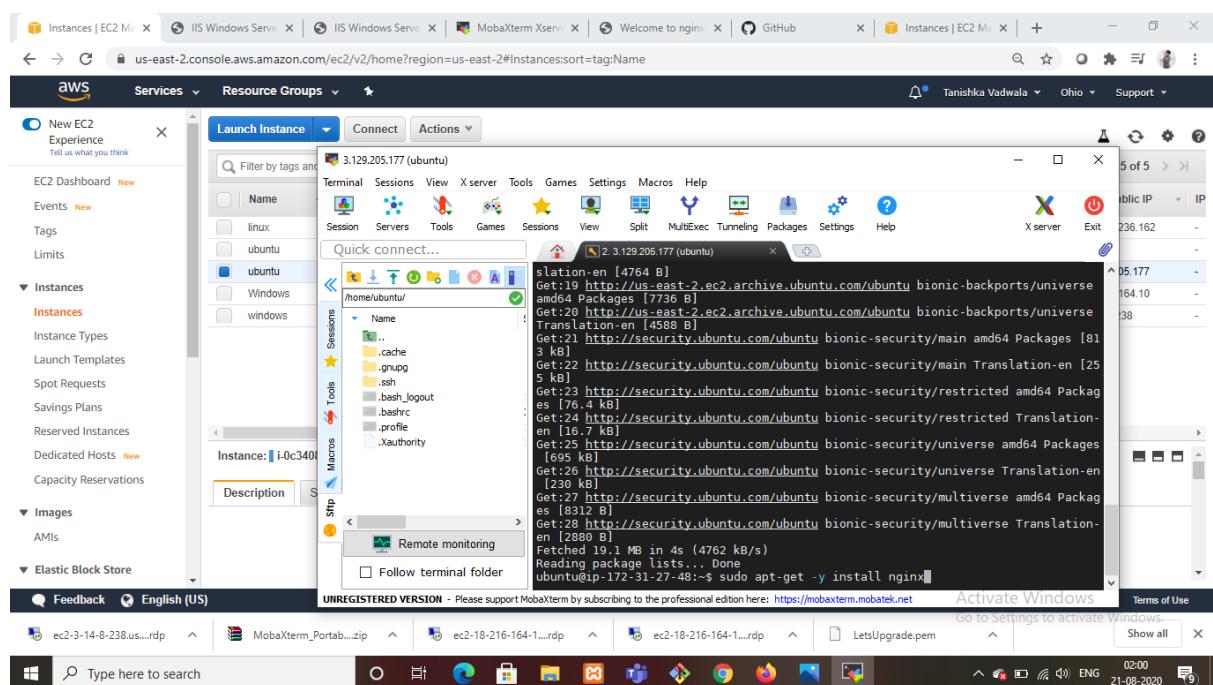
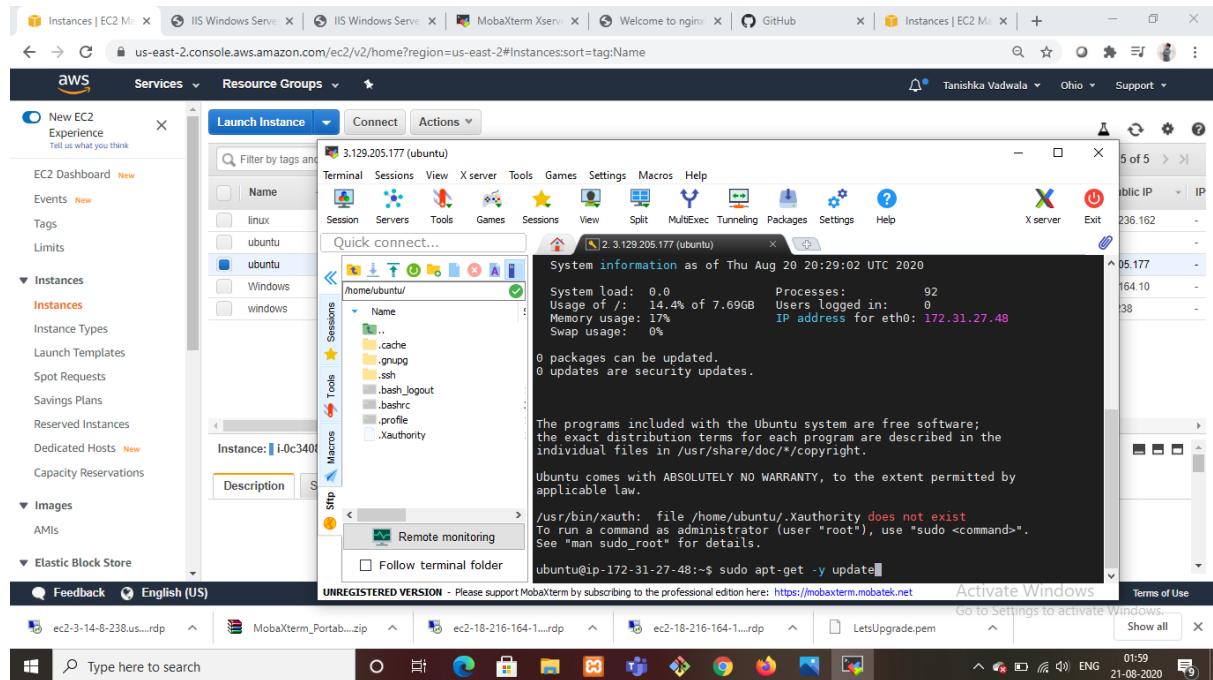
While your instances are launching you can also

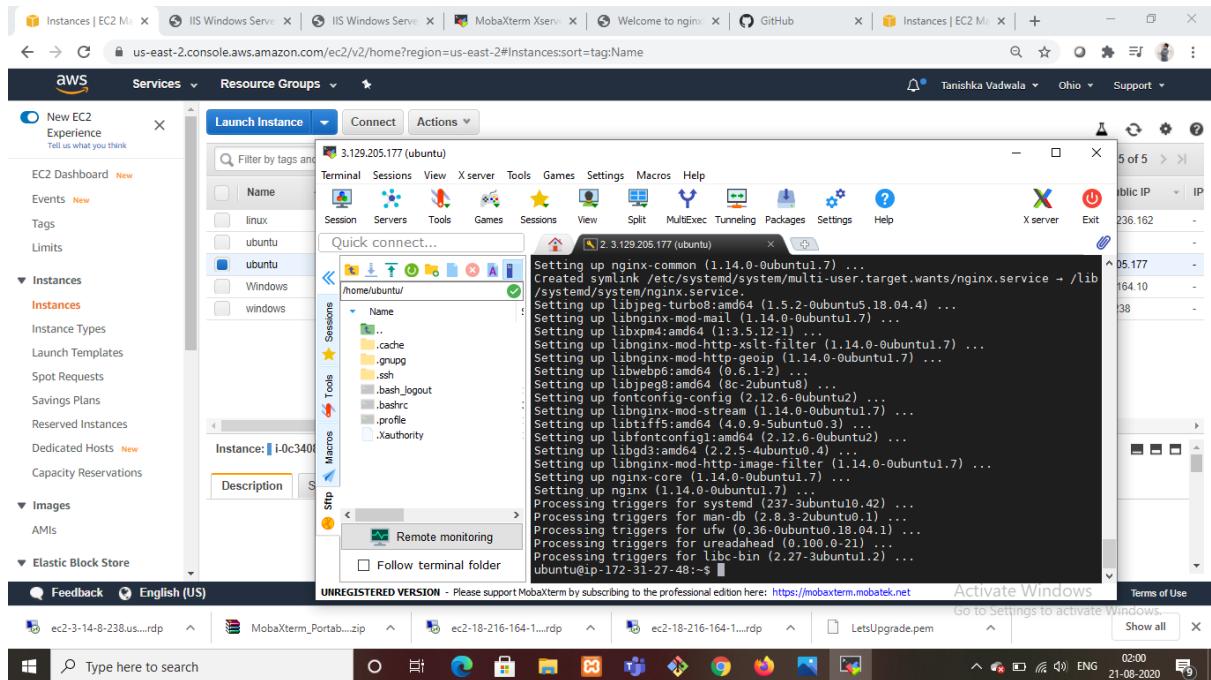
- [Create status check alarms](#) to be notified when these instances fail status checks. (Additional charges may apply)



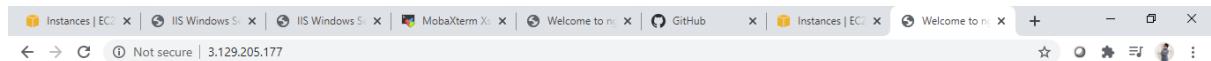








Here after this we have to copy the IPV4 Public key to the URL of the browser n than it will generate the below page



Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org. Commercial support is available at nginx.com.

Thank you for using nginx.



**If this page appears in the URL than it is said that
nginx is installed properly..**