

Project – 2:

- Launching the EC2 Instances

The screenshot shows the AWS Management Console interface. The top navigation bar includes the AWS logo, 'Services', 'Resource Groups', and user information. The left sidebar contains navigation links for 'EC2 Dashboard', 'Events', 'Tags', 'Limits', 'Instances', and 'Images'. The main content area displays the 'Launch Instance' button and a table of existing instances. The instance 'i-0099c266cdea55aa0' (Windows) is highlighted, showing its details: Instance ID, Instance Type (t2.micro), Availability Zone (us-east-2a), Instance State (running), Status Checks (2/2 checks passed), Alarm Status (None), and Public DNS (IPV4) (ec2-3-15-138-142.us-east-2.compute.amazonaws.com).

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

The screenshot shows the AWS Launch Instance Wizard, Step 1: Choose an Amazon Machine Image (AMI). The wizard displays a list of AMIs, including 'Ubuntu Server 18.04 LTS (HVM), SSD Volume Type'. The 'Select' button is highlighted for the Ubuntu AMI. The wizard also includes a section for 'Are you launching a database instance? Try Amazon RDS.' with a 'Launch a database using RDS' button.

- Select the Free tier eligible Instance Type

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

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

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 Show/Hide 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
<input type="checkbox"/>	General purpose	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
<input checked="" type="checkbox"/>	General purpose	t2.micro Free tier eligible	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

Cancel Previous **Review and Launch** Next: Configure Instance Details

- Configure the Instance Details

us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#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: 1 [Launch into Auto Scaling Group](#)

Purchasing option: ☐ Request Spot instances

Network: vpc-7944e712 (default) [Create new VPC](#)

Subnet: No preference (default subnet in any Availability Zone) [Create new subnet](#)

Auto-assign Public IP: **Enable**

Placement group: ☐ Add instance to placement group

Capacity Reservation: Open

IAM role: None [Create new IAM role](#)

Shutdown behavior: Stop

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

- Add Storage

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/sda1	snap-0cd98f931a8ffac8	8	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](#)

- Add Tags

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
Name	Ubuntu	<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](#)

- Configure Security Group

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

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

- Select an existing key pair and select key pair,Now click the Launch Instances

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

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 [Edit security groups](#) or [Edit AMI](#) or [Edit instance type](#).

Improve your instances' security
Your instances may be accessible from anywhere on the Internet. You can also open additional ports in your security groups.

AMI Details
Ubuntu Server 18.04 LTS (HVM) (Free tier eligible)
Root Device Type: ebs Virtualization type: hvm

Instance Type
Instance Type: t2.micro ECU: Variable vCPU: 1

Network Performance
Low to Moderate

Cancel Previous Launch

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

us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#instances:search=i-00cc122d801f77ebf&sort=instancetype

Launch Instance Connect Actions

search: i-00cc122d801f77ebf Add filter

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)
Ubuntu	i-00cc122d801f77ebf	t2.micro	us-east-2a	running	2/2 checks ...	None	ec2-18-222-168-110.us...

Instance: i-00cc122d801f77ebf (Ubuntu) Public DNS: ec2-18-222-168-110.us-east-2.compute.amazonaws.com

Description Status Checks Monitoring Tags

Instance ID i-00cc122d801f77ebf Public DNS (IPv4) ec2-18-222-168-110.us-east-2.compute.amazonaws.com

Instance state running IPv4 Public IP 18.222.168.110

Instance type t2.micro IPv6 IPs -

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- By clicking the connect and copy the username

Connect to your instance

Connection method ☒ A standalone SSH client ☐ Session Manager ☐ EC2 Instance Connect (browser-based SSH connection)

To access your instance:

1. Open an SSH client. (find out how to [connect using PuTTY](#))
2. Locate your private key file (letsupgrade.pem). The wizard automatically detects the key you used to launch the instance.
3. Your key must not be publicly viewable for SSH to work. Use this command if needed:

```
chmod 400 letsupgrade.pem
```
4. Connect to your instance using its Public DNS:

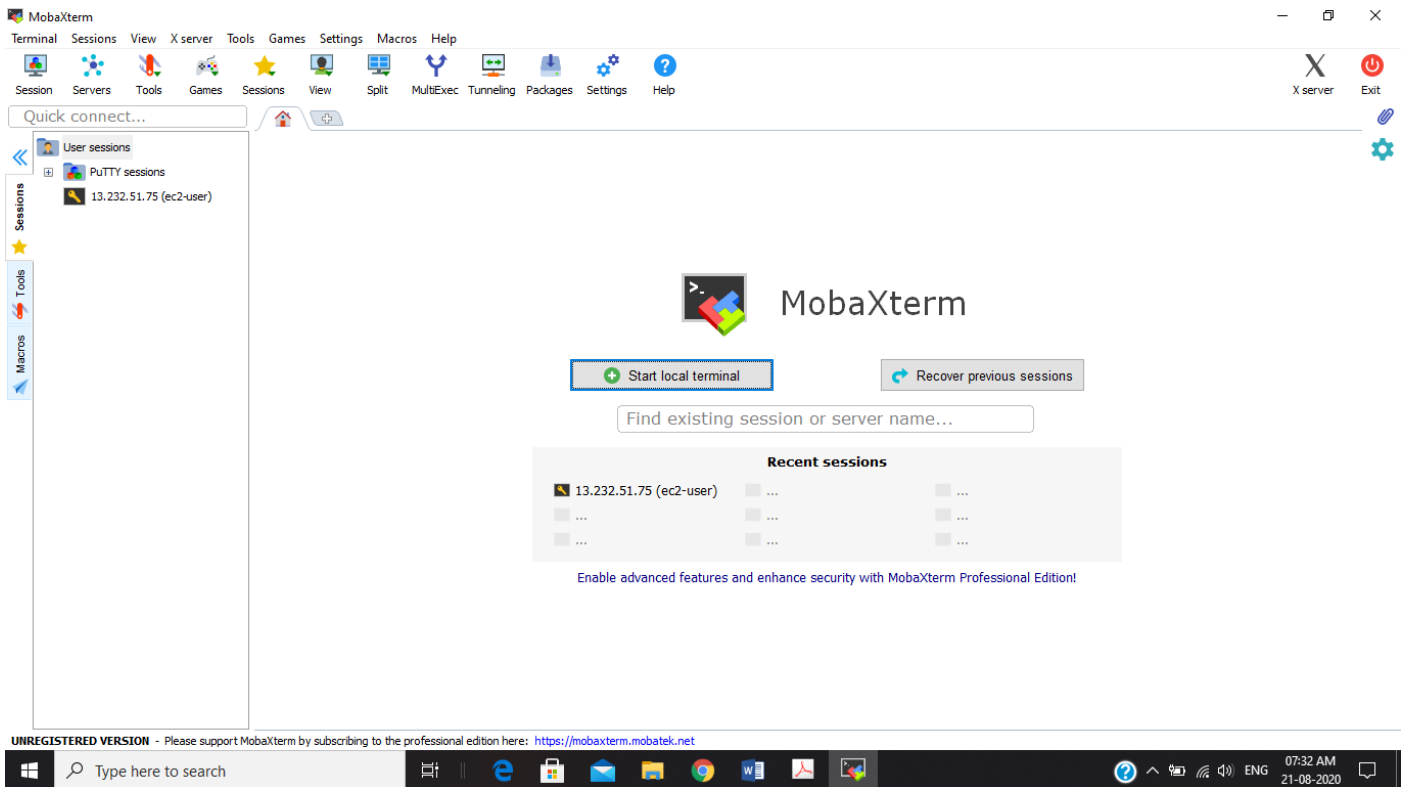
```
ec2-18-222-168-110.us-east-2.compute.amazonaws.com
```

Example:

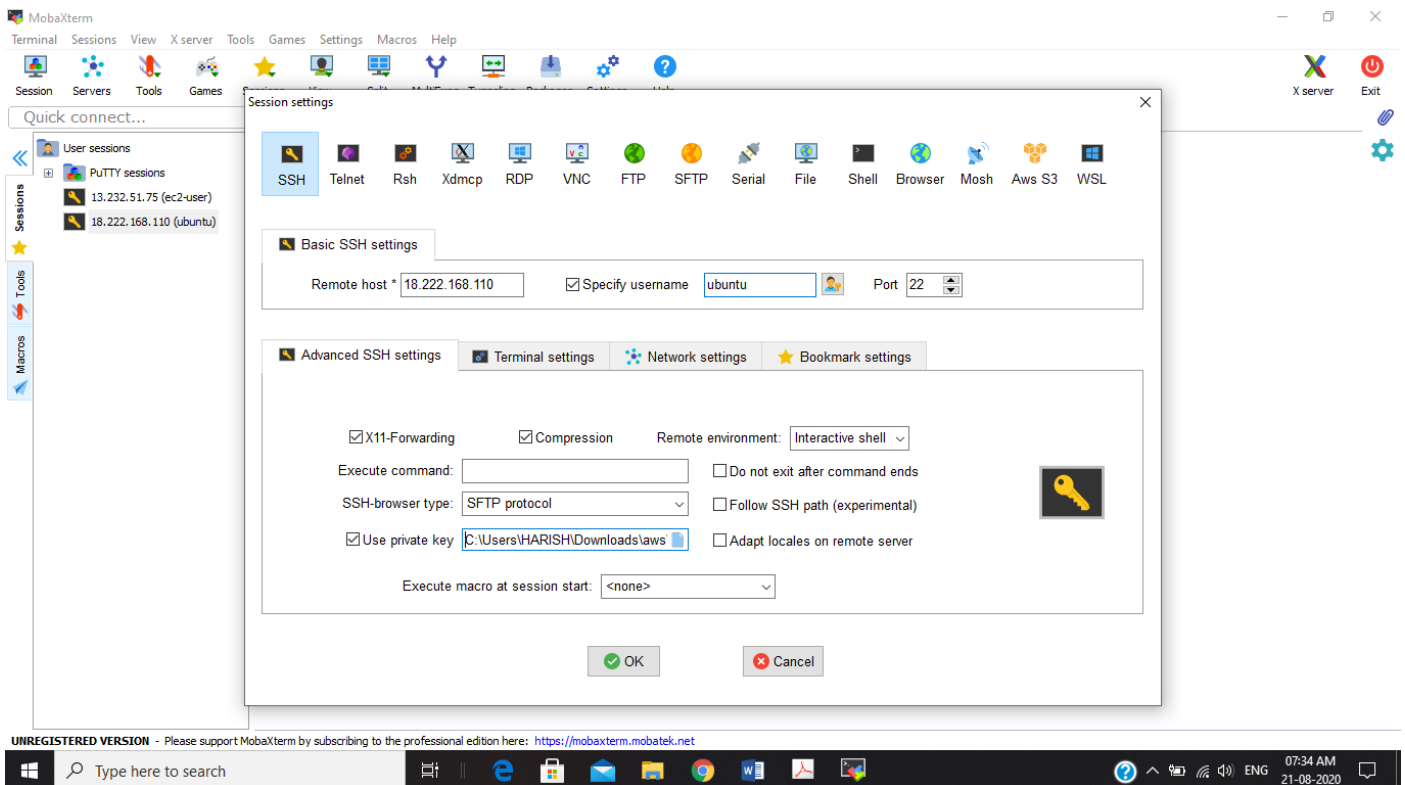
```
ssh -i "letsupgrade.pem" ubuntu@ec2-18-222-168-110.us-east-2.compute.amazonaws.com
```

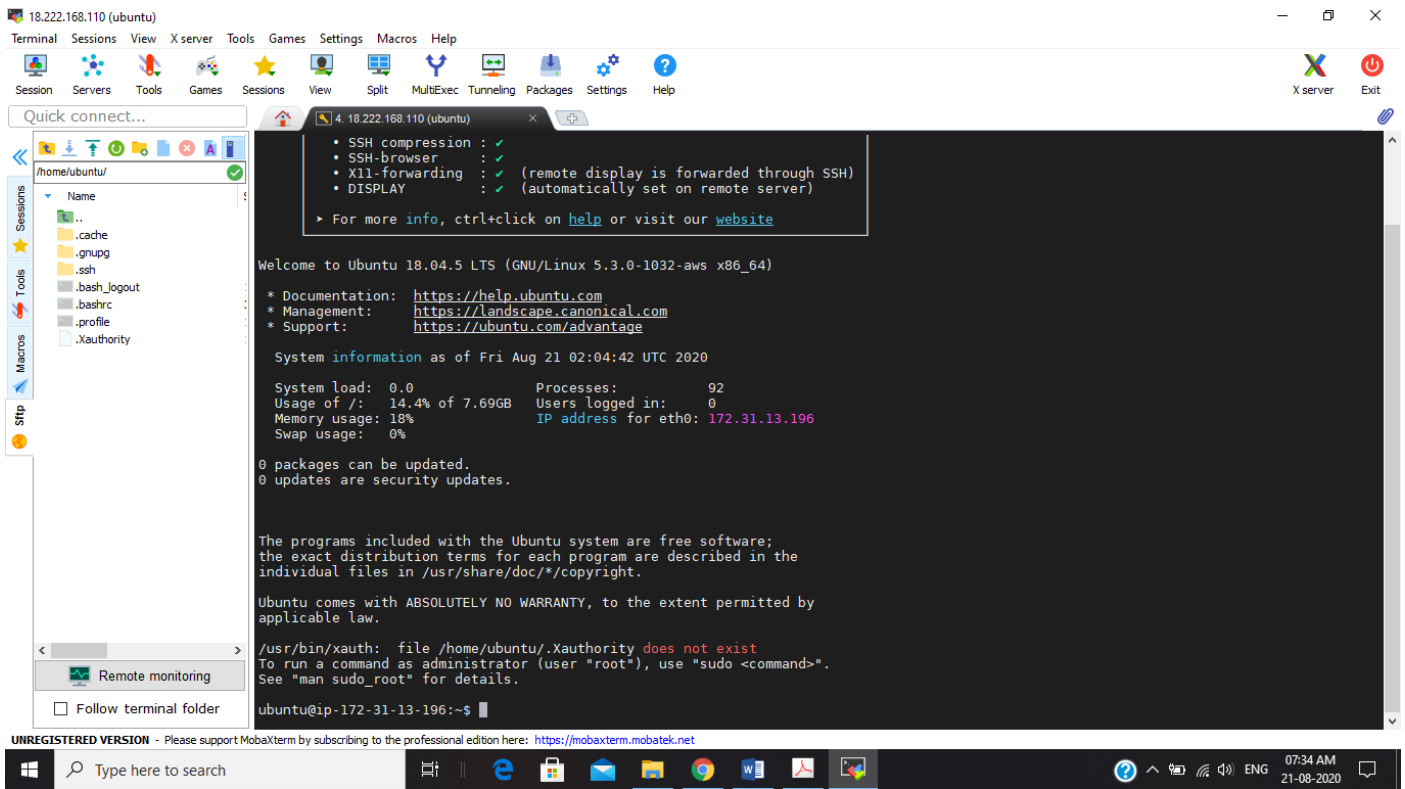
Please note that in most cases the username above will be correct, however please ensure that you read your AMI usage instructions to ensure that the AMI owner has not changed the default AMI username

- Now Launching the MobaXterm

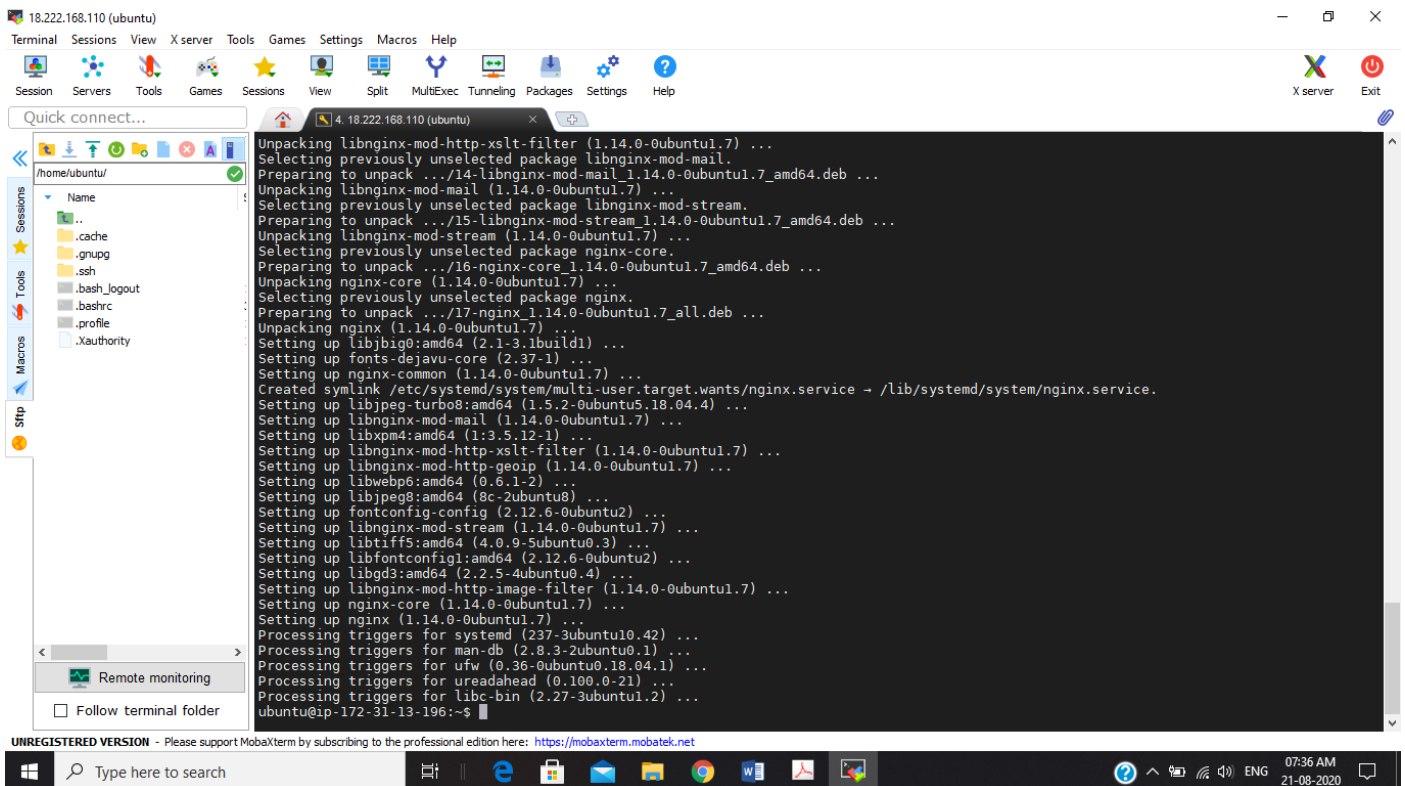


- Paste the Public IP address ,specify username and Use private Key

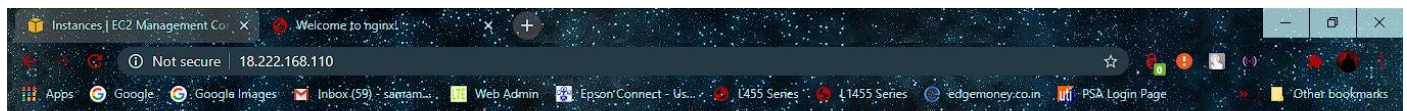




- Now Installing the Nginix



- Final Verification



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.

