

Name: Rushikesh Shejwal

Task: Create 2 Ec2 windows free tier instances. Configure IIS server on both. Be sure you are configuring them on two different availability zones for achieving high availability. Configuring a classic load balancer between those two instances with HTTP service port.

Steps: 1. Choose Windows Server AMI

Step 1: Choose an Amazon Machine Image (AMI)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. You can select an AMI provided by AWS, our user community, or the AWS Marketplace; or you can select one of your own AMIs.

Search for an AMI by entering a search term e.g. "Windows"

Search by Systems Manager parameter

Quick Start

My AMIs

AWS Marketplace

Community AMIs

☐ Free tier only ⓘ

Amazon Linux 2 AMI (HVM), SSD Volume Type - ami-0b1e2eb33ce3d66f (64-bit x86) / ami-0e98bc71bf951fb8e (64-bit Arm)

Amazon Linux 2 comes with five years support. It provides Linux kernel 4.14 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.

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

☒ 64-bit (x86)

☐ 64-bit (Arm)

Amazon Linux 2018.03.0 (HVM), SSD Volume Type - ami-0a243dbef00e96192

The Amazon Linux AMI is an EBS-backed, AWS-supported image. The default image includes AWS command line tools, Python, Ruby, Perl, and Java. The repositories include Docker, PHP, MySQL, PostgreSQL, and other packages.

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

64-bit (x86)

Red Hat Enterprise Linux 8 (HVM), SSD Volume Type - ami-02f147dfb8be58a10 (64-bit x86) / ami-04b741928ba3831b2 (64-bit Arm)

Red Hat Enterprise Linux version 8 (HVM), EBS General Purpose (SSD) Volume Type

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

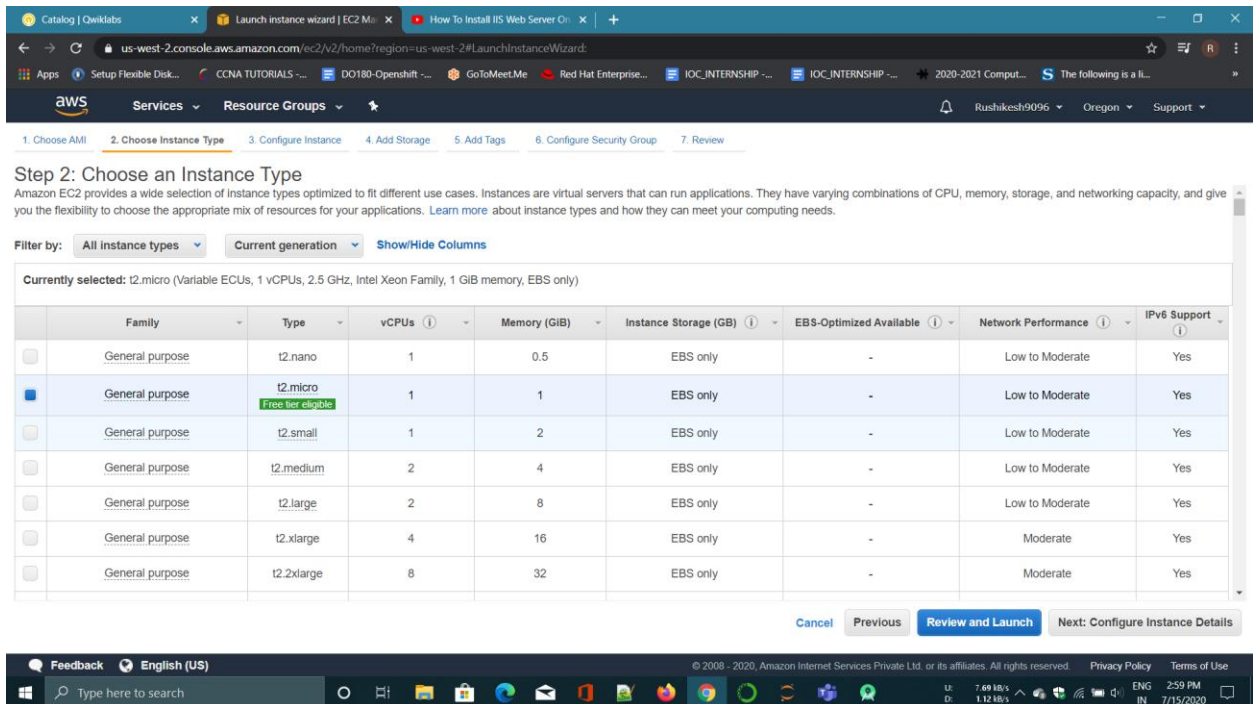
☒ 64-bit (x86)

☐ 64-bit (Arm)

© 2008 - 2020, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. Privacy Policy Terms of Use

ENG 2:58 PM 7/15/2020

2. Choose the Instance Type



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.

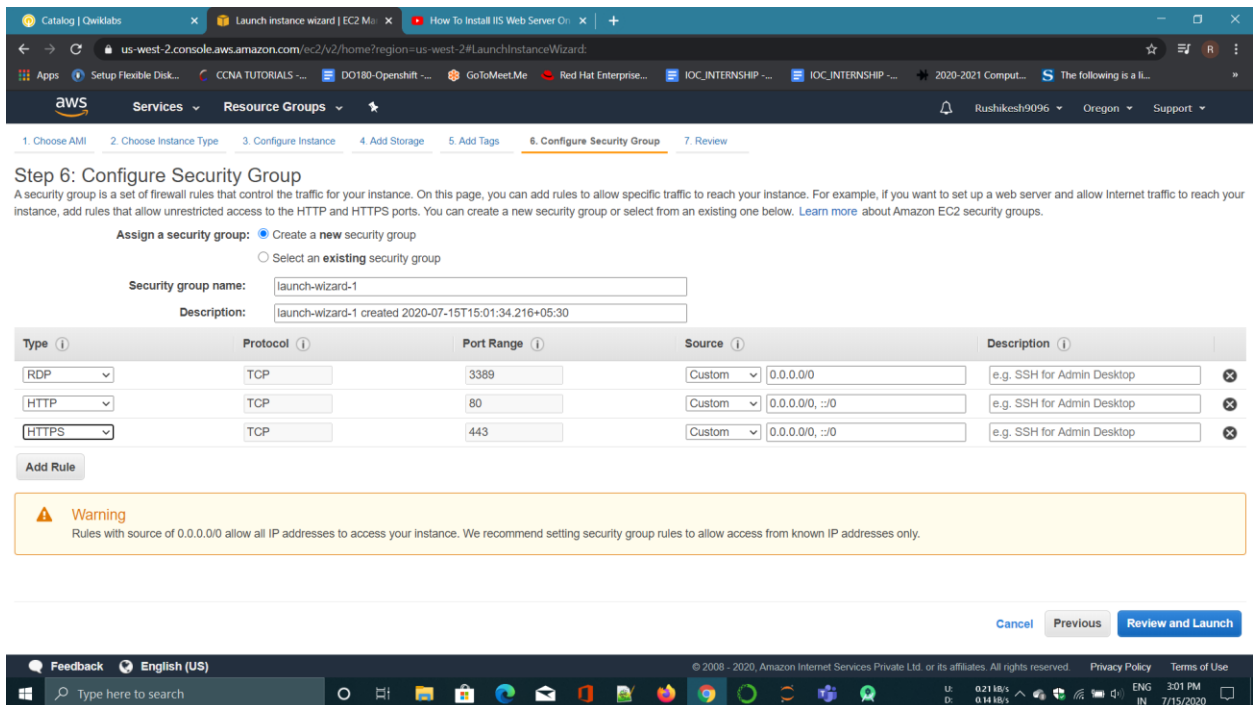
Filter by: **All Instance types** **Current generation** [Show/Hide Columns](#)

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

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

3. Configure Security Group and click on add rule and add http and https



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
RDP	TCP	3389	Custom 0.0.0.0/0	e.g. SSH for Admin Desktop
HTTP	TCP	80	Custom 0.0.0.0/0 ::0	e.g. SSH for Admin Desktop
HTTPS	TCP	443	Custom 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](#)

4. Launch 2 EC2 Instances

The screenshot displays the AWS Management Console's EC2 Instances page. The left sidebar shows navigation options like EC2 Dashboard, Events, Tags, Limits, and Instances. The main content area lists two EC2 instances. Instance 1 is a t2.micro instance with ID i-06ee15a9aa890f3a, in the us-west-2c availability zone, in a 'running' state. Instance 2 is a t2.micro instance with ID i-0c27a51a5ce68caf, also in the us-west-2c availability zone, but in an 'initializing' state. Below the instance list, details for Instance 2 are expanded, showing VPC ID (vpc-2Hd3157), Subnet ID (subnet-9de73fc0), Network interfaces (eth0), IAM role (-), Key pair name (IIServer), AMI ID (Windows_Server-2019-English-Full-Base-2020.06.10), Platform details (Windows), Usage operation (RunInstances:0002), Source/dest check (True), T2/T3 Unlimited (Disabled), and EBS-optimized (False).

5. Click On create load Balancer and select Classic Load balancer

The screenshot shows the 'Create Load Balancer' wizard in the AWS Management Console. The wizard is at Step 1: Define Load Balancer. The 'Load Balancer name' field is empty, with a placeholder text 'Only a-z, A-Z, 0-9 and hyphens are allowed'. The 'Create LB Inside' dropdown is set to 'My Default VPC (172.31.0.0/16)'. The 'Create an internal load balancer' checkbox is unchecked. The 'Enable advanced VPC configuration' checkbox is also unchecked. The 'Listener Configuration' table shows a single listener with Load Balancer Protocol 'HTTP', Load Balancer Port '80', Instance Protocol 'HTTP', and Instance Port '80'. The 'Add' button is visible below the table. The 'Next: Assign Security Groups' button is at the bottom right.

6. Configure health check

Step 4: Configure Health Check

Your load balancer will automatically perform health checks on your EC2 instances and only route traffic to instances that pass the health check. If an instance fails the health check, it is automatically removed from the load balancer. Customize the health check to meet your specific needs.

Ping Protocol:

Ping Port:

Advanced Details

Response Timeout: seconds

Interval: seconds

Unhealthy threshold:

Healthy threshold:

[Cancel](#) [Previous](#) [Next: Add EC2 Instances](#)

7. Add instances and click on create load balancer. Load balancer is created.

Create Load Balancer

Filter by tags and attributes or search by keyword

Name	DNS name	State	VPC ID	Availability Zones	Type	Created
LB-1	LB-1-1084151278.us-west-2...		vpc-2f4d3157	us-west-2d, us-west-2c...	classic	July 15, 2020

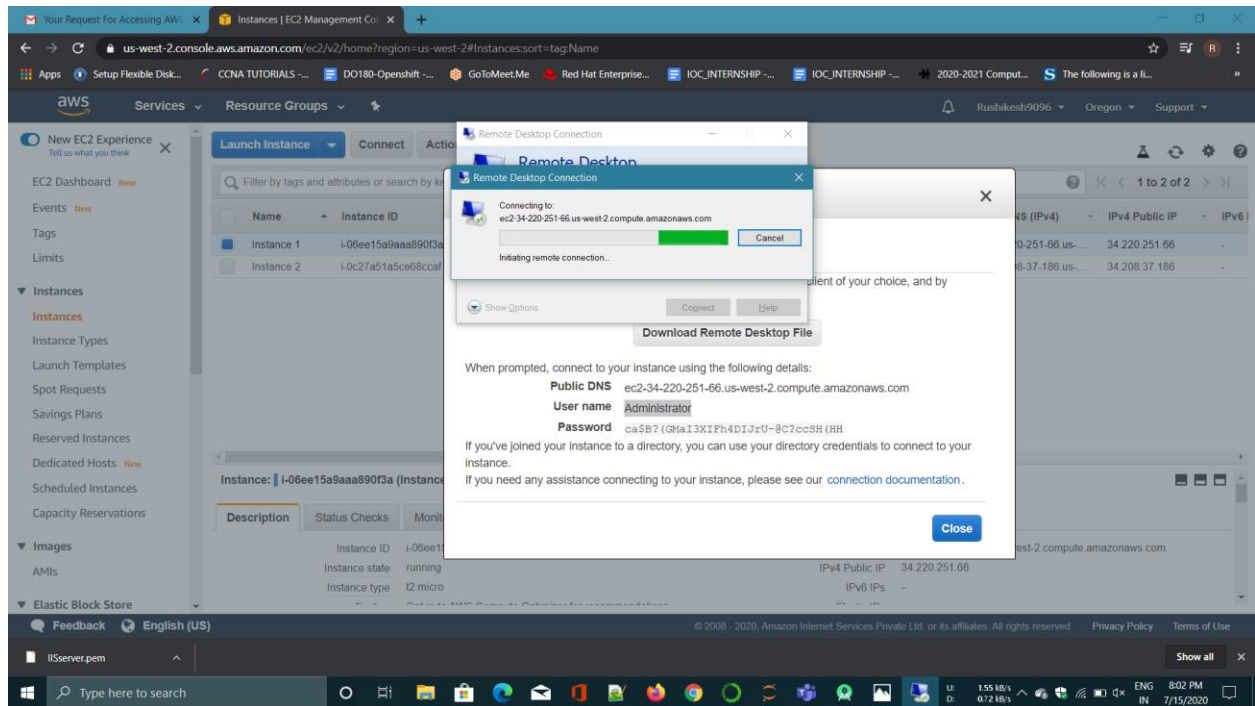
Load balancer: LB-1

Description Instances Health check Listeners Monitoring Tags Migration

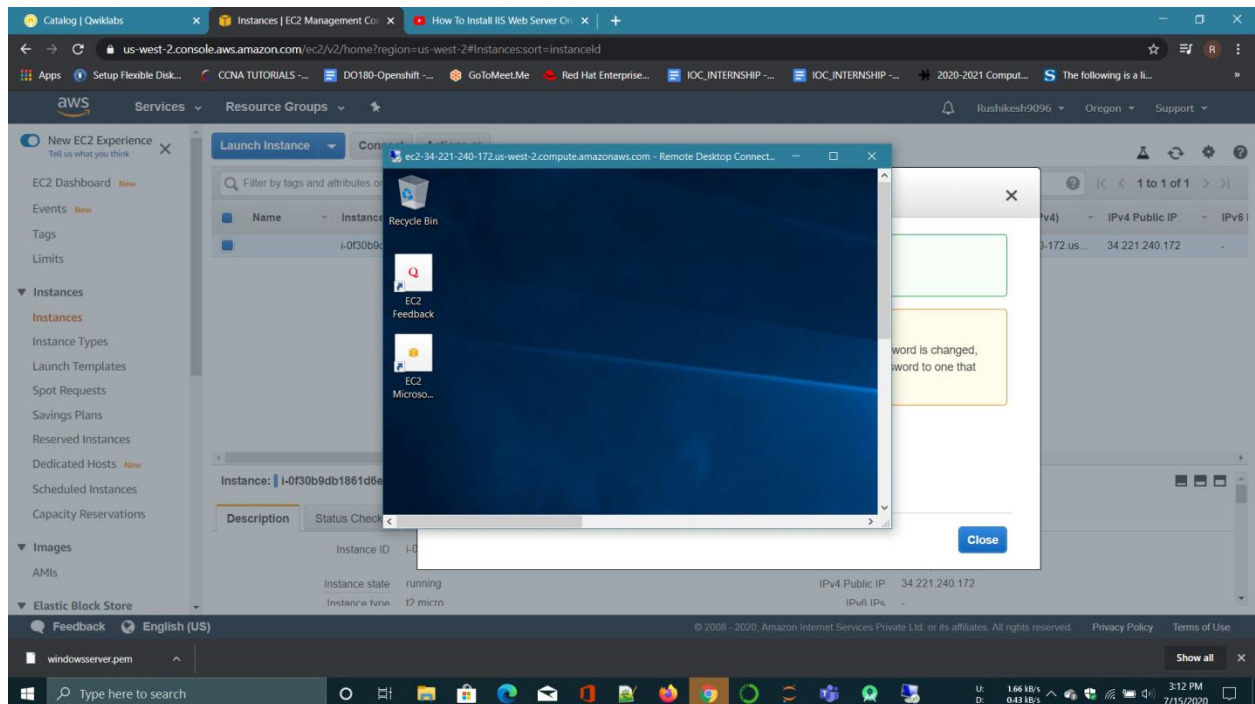
Basic Configuration

Name	Creation time
LB-1	July 15, 2020 at 7:50:44 PM UTC+5:30

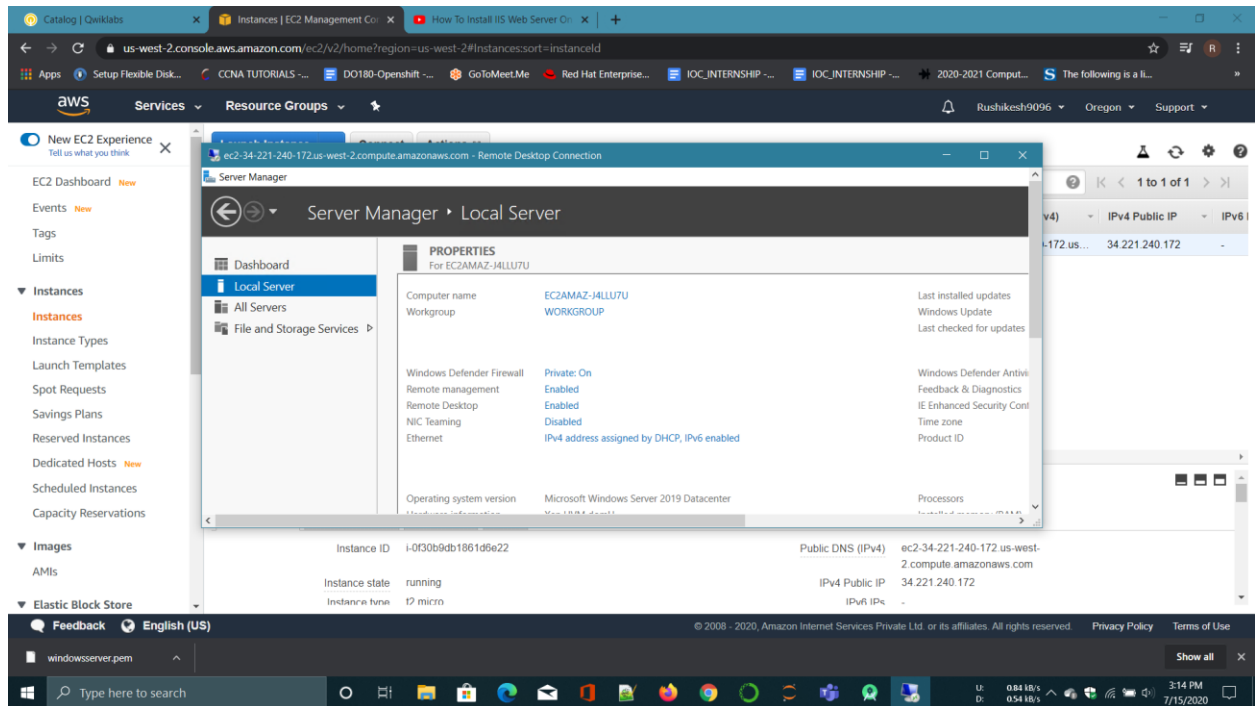
8. Go to Instances select instance 1 and click on connect. Open the remote desktop connection. Copy the username and password. Paste it into remote desktop connection. Click on connect.



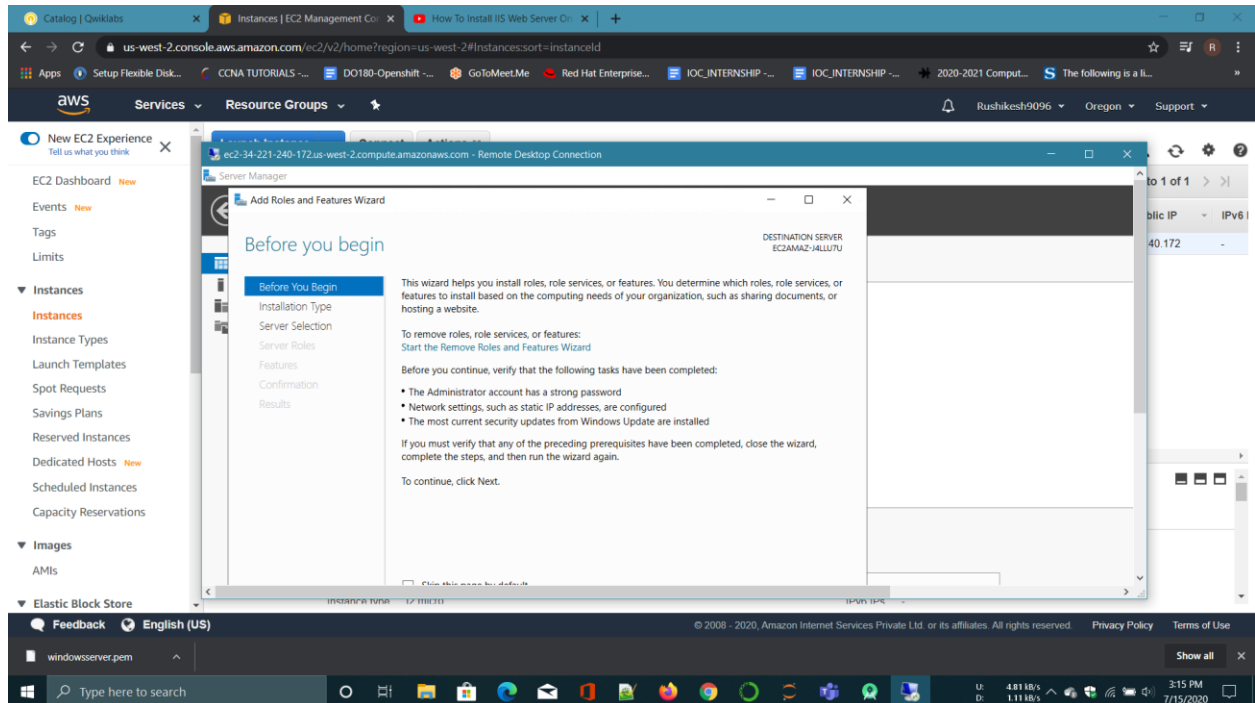
9. windows server is started for instance 1



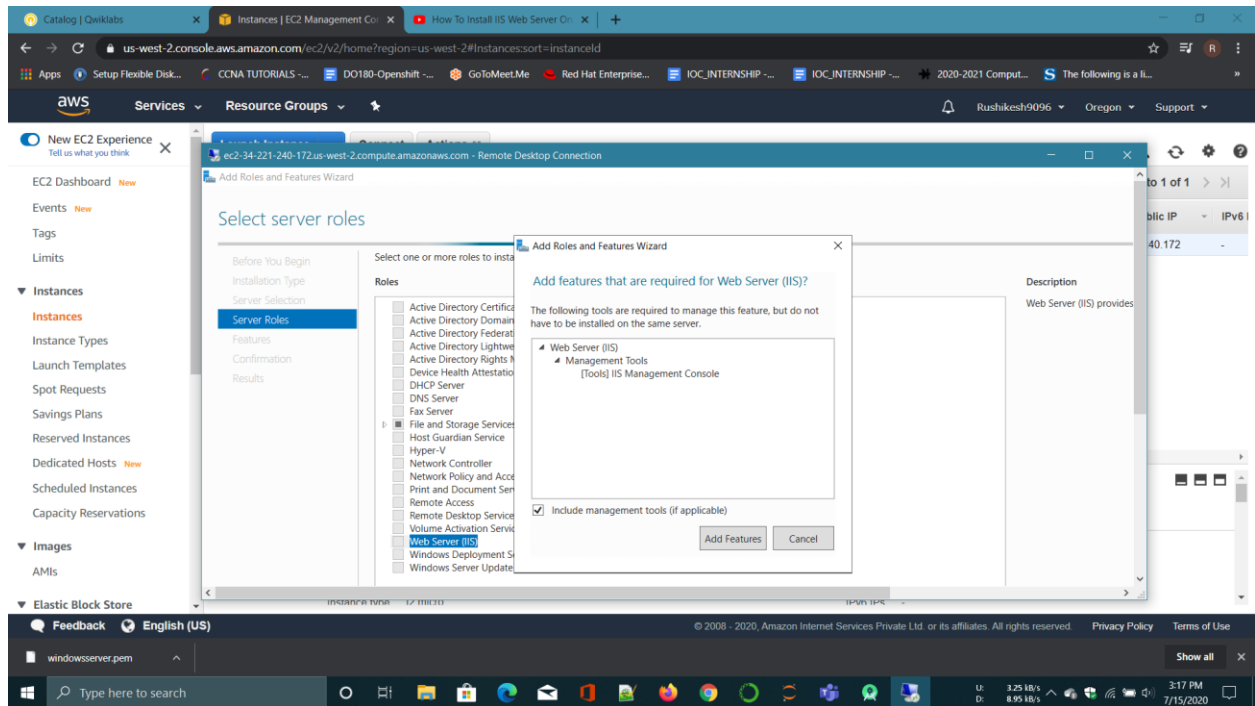
10. Open server manager



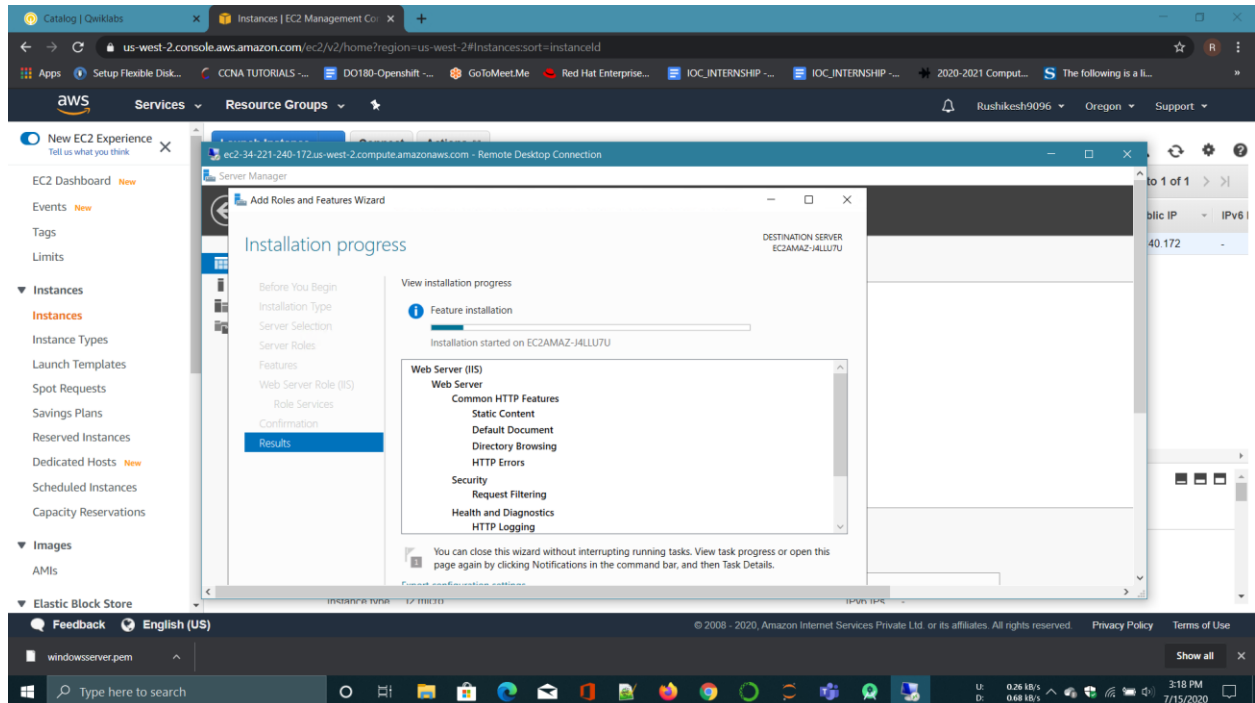
11. Click on add rule



12. Select IIS server

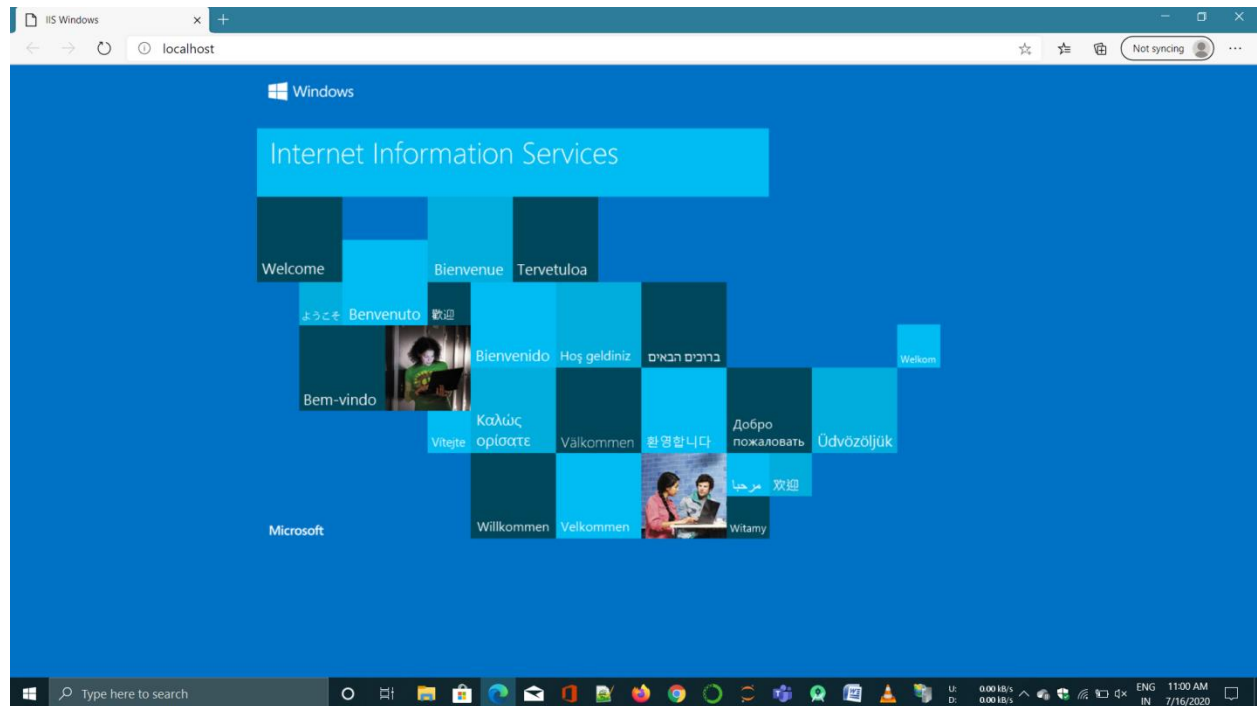


13. Click on Install

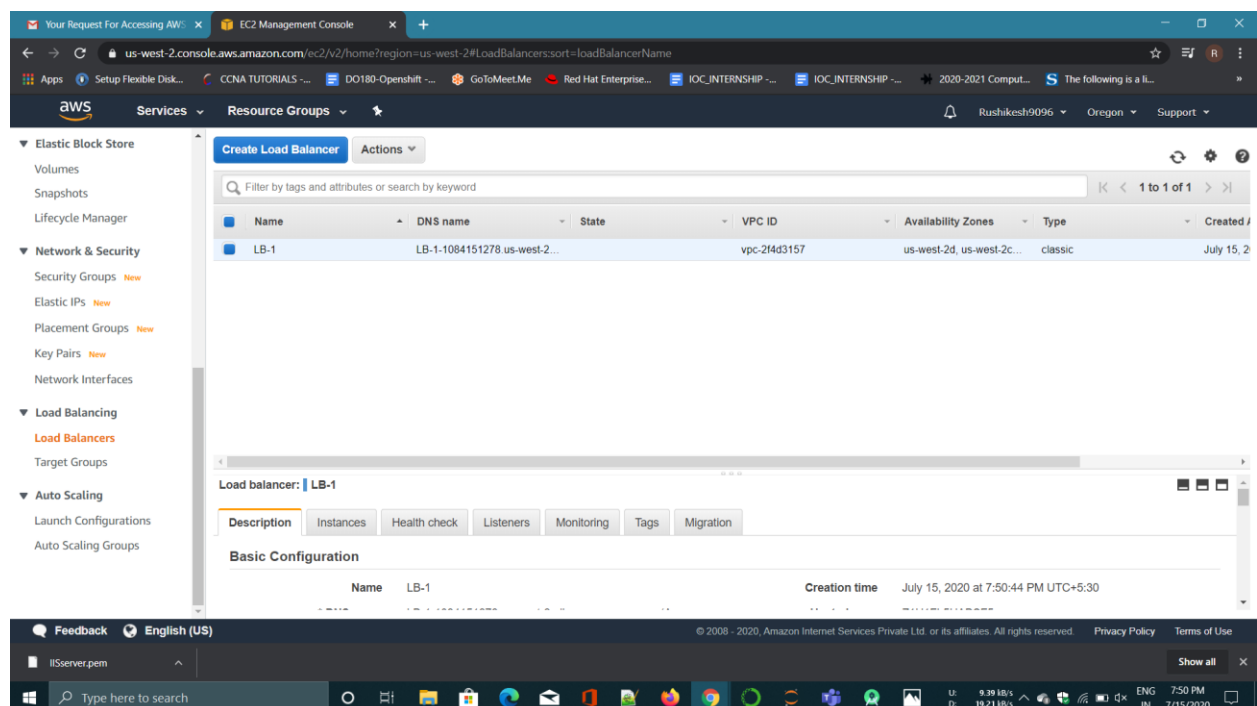


14. Creating IIS server for instance 2 repeat the steps 8 to 13.

15. open IIS server and go to sites. Click on browser. IIS server is configured for both Instances.



16. Open load balancer both instances are in Inservice



17. open Instances. Select instance 1 and go to actions click on Networking. Select Change source. Click on yes disable. Now instance 1 is disable.

18. Go to Load balancer and copy the dns name and paste it on browser. Instance 1 is Out of service hence the link redirect to instance 2.

From Instance 2

