

08/20/2020

# Deploying a web server in Windows instance AWS(Amazon Web Services)

This step-by-step guide, EC2 configuration will help you understand the Deploying a web server in Windows instance in AWS, You will first activate your AWS account, then setup your EC2 environment where your instance will be launched into.

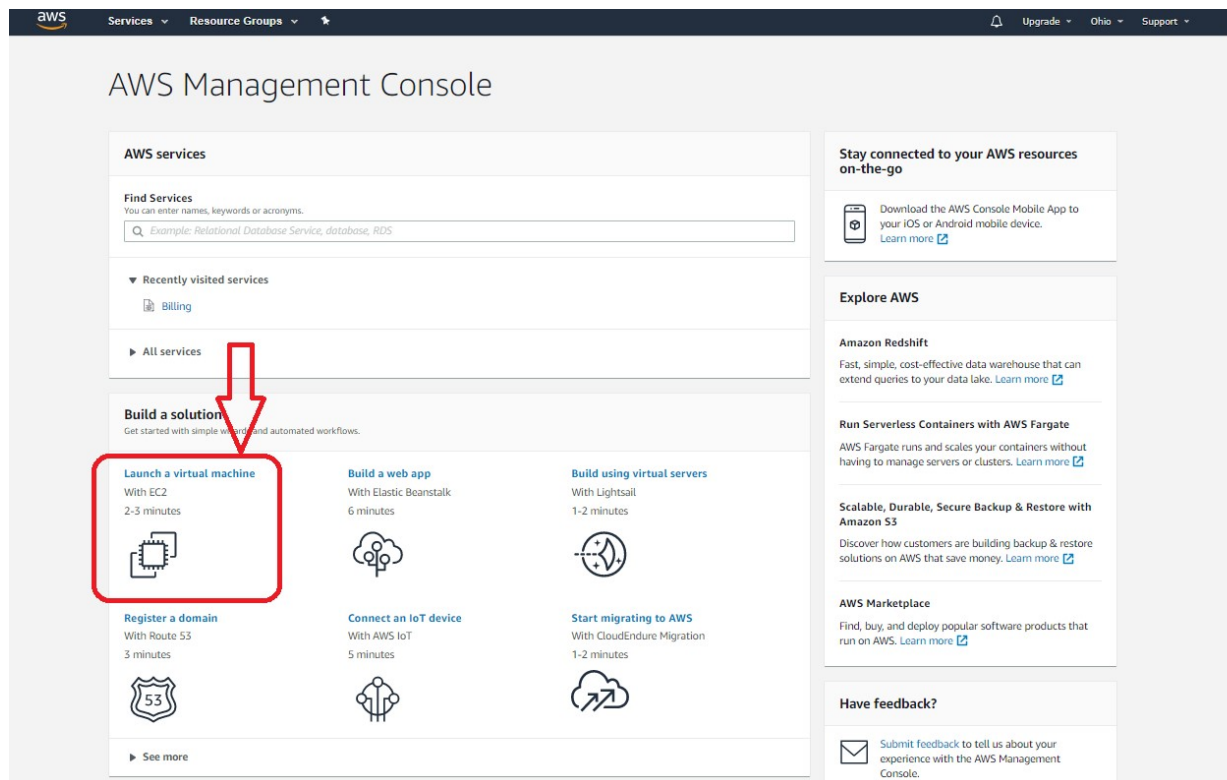
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## STEP BY STEP Follow

- Activate AWS account & login
- Goto Console



Click on EC2 (Elastic Compute Cloud )

aws 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 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-07c8bc5c1ce9598c3 (64-bit x86) / ami-09a67037138f86e67 (64-bit Arm)

Amazon Linux Free tier eligible

Amazon Linux 2018.03.0 (HVM), SSD Volume Type - ami-02b0c55eeae6d5096

Amazon Linux Free tier eligible

Red Hat Enterprise Linux 8 (HVM), SSD Volume Type - ami-0a54aef4ef3b5f881 (64-bit x86) / ami-0fd59b53e6797671 (64-bit Arm)

Red Hat Free tier eligible

SUSE Linux Enterprise Server 15 SP2 (HVM), SSD Volume Type - ami-03f4c18f489586a3 (64-bit x86) / ami-0d24f1c1ba96d2803 (64-bit Arm)

SUSE Linux Free tier eligible

Ubuntu Server 18.04 LTS (HVM), EBS General Purpose (SSD) Volume Type - ami-0bbe28eb2173f6167 (64-bit x86) / ami-04adf53460efc8798 (64-bit Arm)

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

Free tier eligible

Are you launching a database instance? Try Amazon RDS.

Amazon RDS

Launch a database using RDS

Microsoft Windows Server 2019 Base - ami-0239d3998515e9ed1

Windows Free tier eligible

Microsoft Windows 2019 Datacenter edition, [English]

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

64-bit (x86)

64-bit (x86)

64-bit (x86)

64-bit (x86)

64-bit (x86)

64-bit (x86)

64-bit (x86)

64-bit (x86)

Choose an AMI (Amazon Machine Image)

As per assignment (Windows server 2012 R2 base ) isn't available for free tier

Choose AMI - WINDOWS server 2019 BASE

aws 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 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
<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
<input type="checkbox"/>	General purpose	t3a.nano	2	0.5	EBS only	Yes	Up to 5 Gigabit	Yes
<input type="checkbox"/>	General purpose	t3a.micro	2	1	EBS only	Yes	Up to 5 Gigabit	Yes
<input type="checkbox"/>	General purpose	t3a.small	2	2	EBS only	Yes	Up to 5 Gigabit	Yes
<input type="checkbox"/>	General purpose	t3a.medium	2	4	EBS only	Yes	Up to 5 Gigabit	Yes
<input type="checkbox"/>	General purpose	t3a.large	2	8	EBS only	Yes	Up to 5 Gigabit	Yes
<input type="checkbox"/>	General purpose	t3a.xlarge	4	16	EBS only	Yes	Up to 5 Gigabit	Yes
<input type="checkbox"/>	General purpose	t3a.2xlarge	8	32	EBS only	Yes	Up to 5 Gigabit	Yes
<input type="checkbox"/>	General purpose	t3.nano	2	0.5	EBS only	Yes	Up to 5 Gigabit	Yes
<input type="checkbox"/>	General purpose	t3.micro	2	1	EBS only	Yes	Up to 5 Gigabit	Yes

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

Choose instance type - General purpose 12 Micro (which available for only free tier)

The screenshot displays the 'Step 3: Configure Instance Details' page in the AWS Management Console. The page is divided into several sections with expandable details. The following settings are visible:

- Network:** VPC is set to 'vpc-fd3f5c96 (default)'. Subnet is set to 'No preference (default subnet in any Availability Zone)'. Auto-assign Public IP is set to 'Enable'.
- Placement group:** 'Add instance to placement group' is unchecked.
- Capacity Reservation:** Set to 'Open'.
- Domain join directory:** Set to 'No directory'.
- IAM role:** Set to 'None'.
- Shutdown behavior:** Set to 'Stop'.
- Stop - Hibernate behavior:** 'Enable hibernation as an additional stop behavior' is unchecked.
- Enable termination protection:** 'Protect against accidental termination' is checked.
- Monitoring:** 'Enable CloudWatch detailed monitoring' is unchecked.
- Tenancy:** Set to 'Shared - Run a shared hardware instance'.
- Elastic Graphics:** 'Add Graphics Acceleration' is unchecked.
- T2/T3 Unlimited:** 'Enable' is unchecked.

The 'Advanced Details' section is expanded, showing:

- Metadata accessible:** Set to 'Enabled'.
- Metadata version:** Set to 'V1 and V2 (token optional)'.
- Metadata token response hop limit:** Set to '1'.
- User data:** Set to 'As text'.

At the bottom right, the 'Review and Launch' button is highlighted with a red arrow.

## Configure instance Details

- INSTANCE TYPE - 1(As Per Requirement )
- Auto Assign Public IP- Enable
- Protect Against Accidental Termination ( For protection against data deletion / server)

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Services

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Support

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-0fce5b6ed96763b3e	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

<https://us-east-2.console.aws.amazon.com/console/home?region=us-east-2>

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Add storage – As per requirement (Free tier no need to be changed)

aws Services Resource Groups

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### 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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## Configure security groups

- Traffic Type - All type traffic
- Source –anywhere (as per requirement)





aws Services Resource Groups

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### 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-2`, 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](#)

AMI Details

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

Instance Type

Instance Type	ECUs	vCPUs	Mem
t2.micro	Variable	1	1

Security Groups

Security group name: launch-wizard-2  
Description: launch-wizard-2 created 2020-08-08

Type	Protocol
All traffic	All
All traffic	All

Instance Details

Number of instances: 1  
Network: vpc-fd3f6c9d  
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

**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](#).

Create a new key pair

Key pair name: LETSupgrade

Download Key Pair

You have to download the private key file (\*.pem file) before you can continue. Store it in a secure and accessible location. You will not be able to download the file again after it's created.

Cancel Launch Instances

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➤ Download **KEY Pair** for next login.

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Upgrade ▾

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Launch Status

✔️ Your instances are now launching  
The following instance launches have been initiated: i-0e34aee2df44dc070 [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

- [Create status check alarms](#) to be notified when these instances fail status checks. (Additional charges may apply)
- [Create and attach additional EBS volumes](#) (Additional charges may apply)
- [Manage security groups](#)

➡️

[View Instances](#)

🗨️ Feedback

🌐 English (US)

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✓ Your instances launched.

✓ Ready for connect.

The screenshot displays the AWS Management Console for EC2 Instances. The instance 'WEBSERVER' (ID: i-0e34aee2df44dc070) is running in the us-east-2c availability zone. It has two status checks passed and a public DNS of ec2-3-15-170-76.us-east-2.compute.amazonaws.com. The detailed view shows the instance's configuration, including its public and private IP addresses.

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)	IPv4 Public IP	IPv6 IPs	Key Name
WEBSERVER	i-0e34aee2df44dc070	t2.micro	us-east-2c	running	2/2 checks ...	None	ec2-3-15-170-76.us-east-2.compute.amazonaws.com	3.15.170.76	-	LETSupra

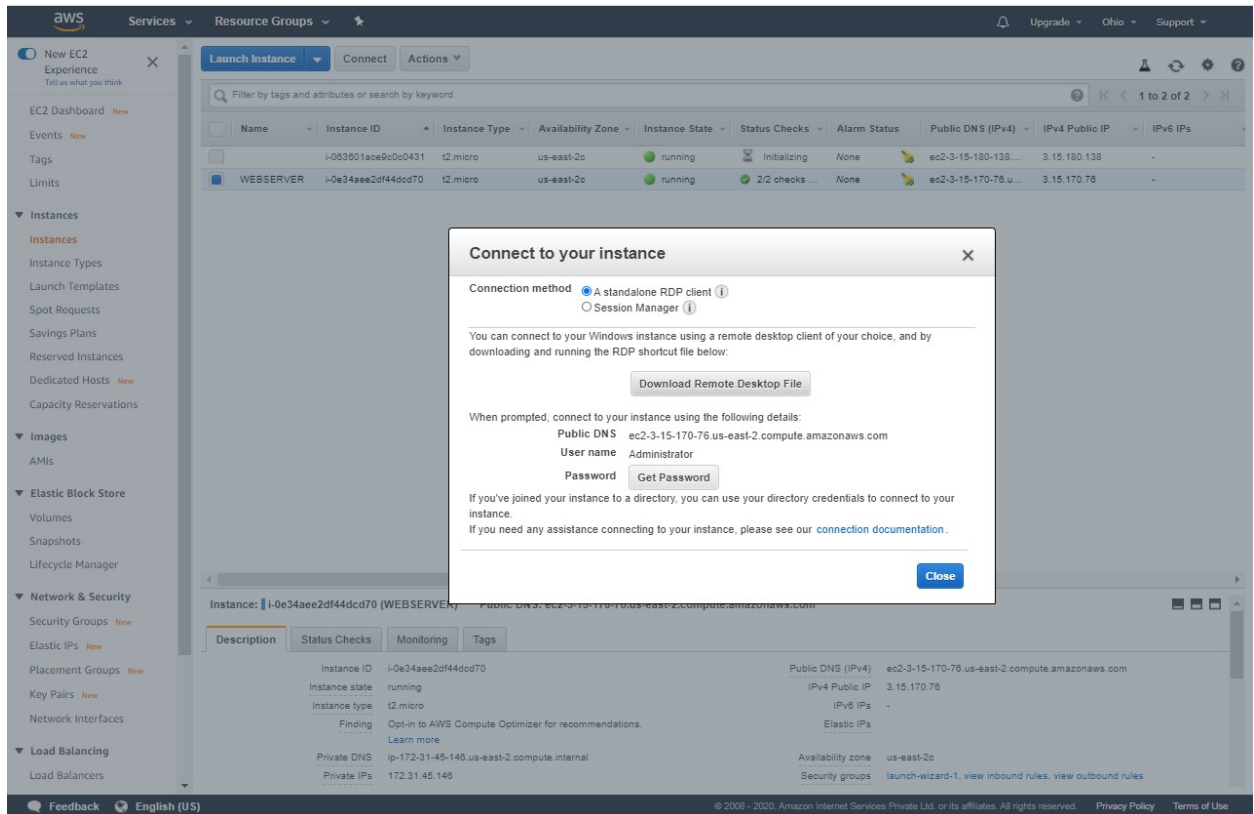
  

Instance: i-0e34aee2df44dc070 (WEBSERVER) Public DNS: ec2-3-15-170-76.us-east-2.compute.amazonaws.com

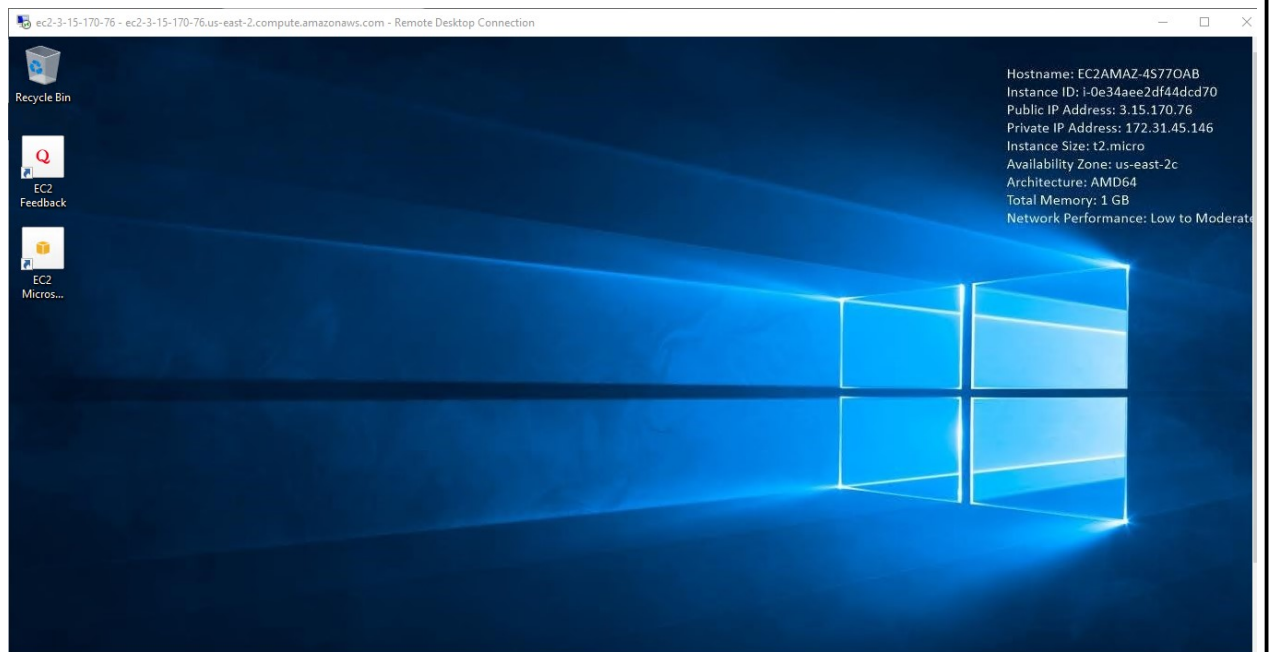
Description	Status Checks	Monitoring	Tags
Instance ID	i-0e34aee2df44dc070		
Instance state	running		
Instance type	t2.micro		
Finding	Opt-in to AWS Compute Optimizer for recommendations. <a href="#">Learn more</a>		
Private DNS	ip-172-31-145-148.us-east-2.compute.internal		
Private IPs	172.31.45.148		
Secondary private IPs			
VPC ID	vpc-fd3f9c96		
Subnet ID	subnet-e62eaa0		
Public DNS (IPv4)	ec2-3-15-170-76.us-east-2.compute.amazonaws.com		
IPv4 Public IP	3.15.170.76		
IPv6 IPs	-		
Elastic IPs			
Availability zone	us-east-2c		
Security groups	launch-wizard-1. <a href="#">view inbound rules</a> . <a href="#">view outbound rules</a>		
Scheduled events	No scheduled events		
AMI ID	Windows_Server-2019-English-Full-Base-2020.08.12 (ami-0236c3996515e6ed1)		
Platform details	Windows		

## Check Instance status

- 2/2 check. (Must)
- Public & Private IP assigned by Server.



- Connect the server with RDP and launch
- log in with Encrypted key pair.



## Windows Server login

Hit → "win + R"

type → "powershell"

```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

PS C:\Users\Administrator> Install-WindowsFeature -name Web-Server -IncludeManagementTools
```

type → `Install-WindowsFeature -name Web-Server -IncludeManagementTools`

```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

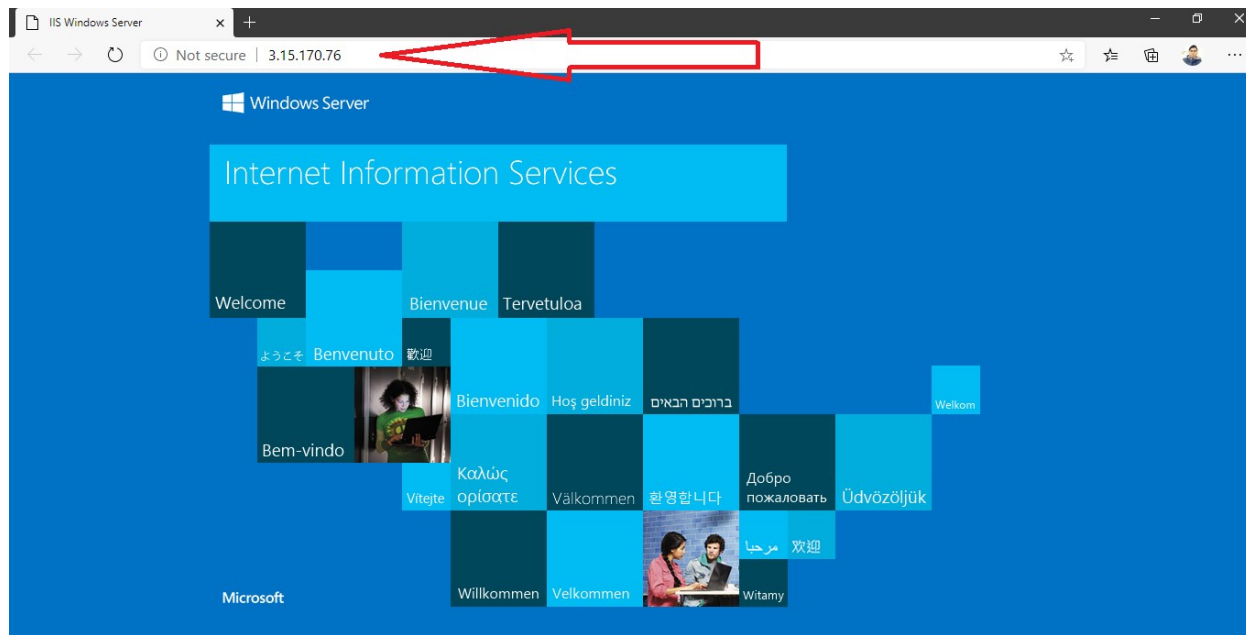
PS C:\Users\Administrator> Install-WindowsFeature -name Web-Server -IncludeManagementTools

Success Restart Needed Exit Code      Feature Result
-----
True      No             NoChangeNeeded {}

PS C:\Users\Administrator>
```

WEBSERVER SUCCESSFULLY INSTALL

When its successfully completing at once, reboot the server ( Not Must).



Success

Check your public IP, which is visible in web. (<http://3.15.170.76/> )

**END**

# THANK YOU