

# AWS Essential Assignment Batch1 Day3

## PROJECT 1:

Deploying a web server in Windows instance

- **Task 1:** Create a windows instance using AMI :Windows 2012 R2 base
- **Task 2:** Launch the Windows instance using RDP
- **Task 3:** Install IIS web server using Powershell ISE  
**Note:** Simply copy the command below and paste in the powershell ISE to install the IIS web server.  
!!!!Powershell is case sensitive.  
Install-WindowsFeature -name Web-Server -IncludeManagementTools
- **Task 4:** Verify successful installation of IIS Web Server  
**Note:** You should be able to see the Internet Information Services Web page when you paste the public IP into the browser

## **Solution:**

### ❖ Account Created on Amazon Webservice



The screenshot shows the AWS Management Console interface. At the top, there's a navigation bar with 'Resource Groups', a search icon, and user information 'Anandkumar C B', 'Mumbai', and 'Support'. Below this is a toolbar with 'Launch Instance', 'Connect', and 'Actions' buttons. A search bar is present with the text 'Filter by tags and attributes or search by keyword'. The main content area displays a table of EC2 instances:





Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)	IPv4 Public
ubuntu-18.04	i-0668c897a8519d31c	t2.micro	ap-south-1a	running	2/2 checks ...	None	ec2-13-127-118-100.ap...	13.127.118.
WindowsServer2019	i-0a90507724a6e06f2	t2.micro	ap-south-1a	running	2/2 checks ...	None	ec2-15-206-124-18.ap-...	15.206.124.


Below the table, there's a section for the selected instance 'i-0a90507724a6e06f2 (WindowsServer2019)'. It shows the 'Public DNS: ec2-15-206-124-18.ap-south-1.compute.amazonaws.com'. There are tabs for 'Description', 'Status Checks', 'Monitoring', and 'Tags'. The 'Description' tab is active, showing details:

Instance ID	i-0a90507724a6e06f2	Public DNS (IPv4)	ec2-15-206-124-18.ap-south-1.compute.amazonaws.com
Instance state	running	IPv4 Public IP	15.206.124.18
Instance type	t2.micro	IPv6 IPs	-
Finding	Opt-in to AWS Compute Optimizer for recommendations. <a href="#">Learn more</a>	Elastic IPs	
Private DNS	ip-172-31-32-228.ap-south-1.compute.internal	Availability zone	ap-south-1a
Private IPs	172.31.32.228	Security groups	launch-wizard-1, view inbound rules, view outbound rules


## ❖ Windows server 2019 Instance Launched




Resource Groups  



 Anandkumar C B  Mumbai  Support 




Launch Instance 














Connect

Actions 

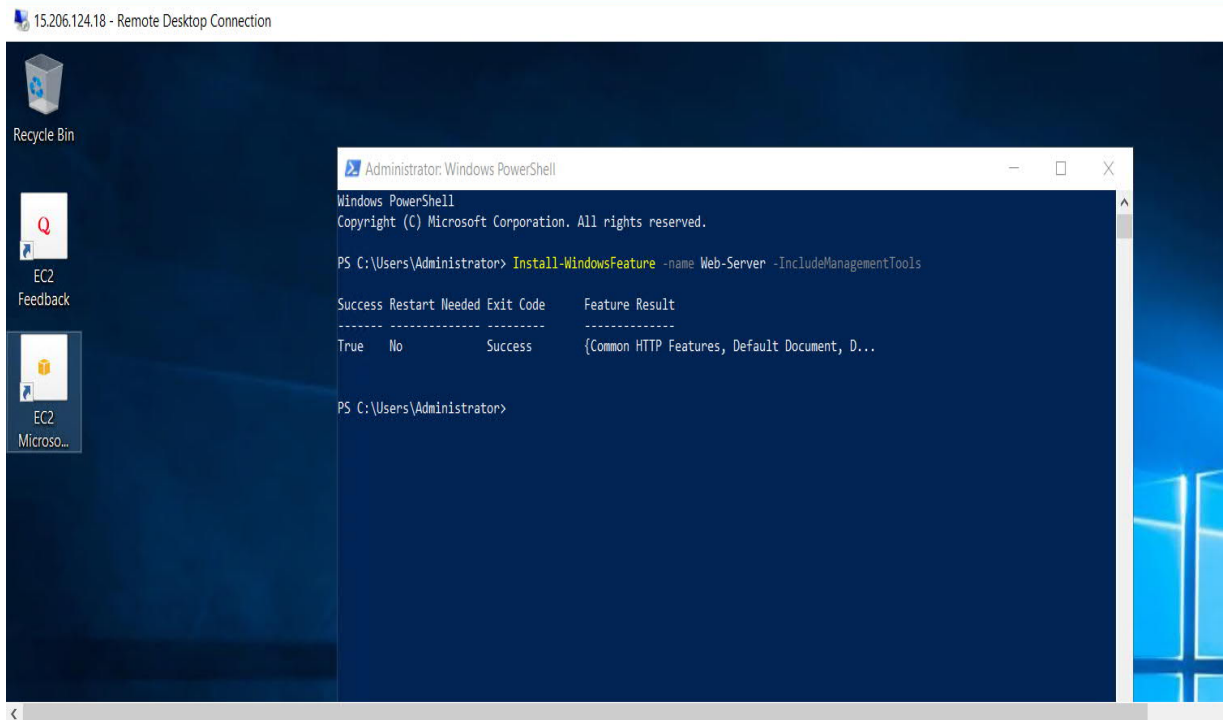
 Filter by tags and attributes or search by keyword 

  1 to 2 of 2 

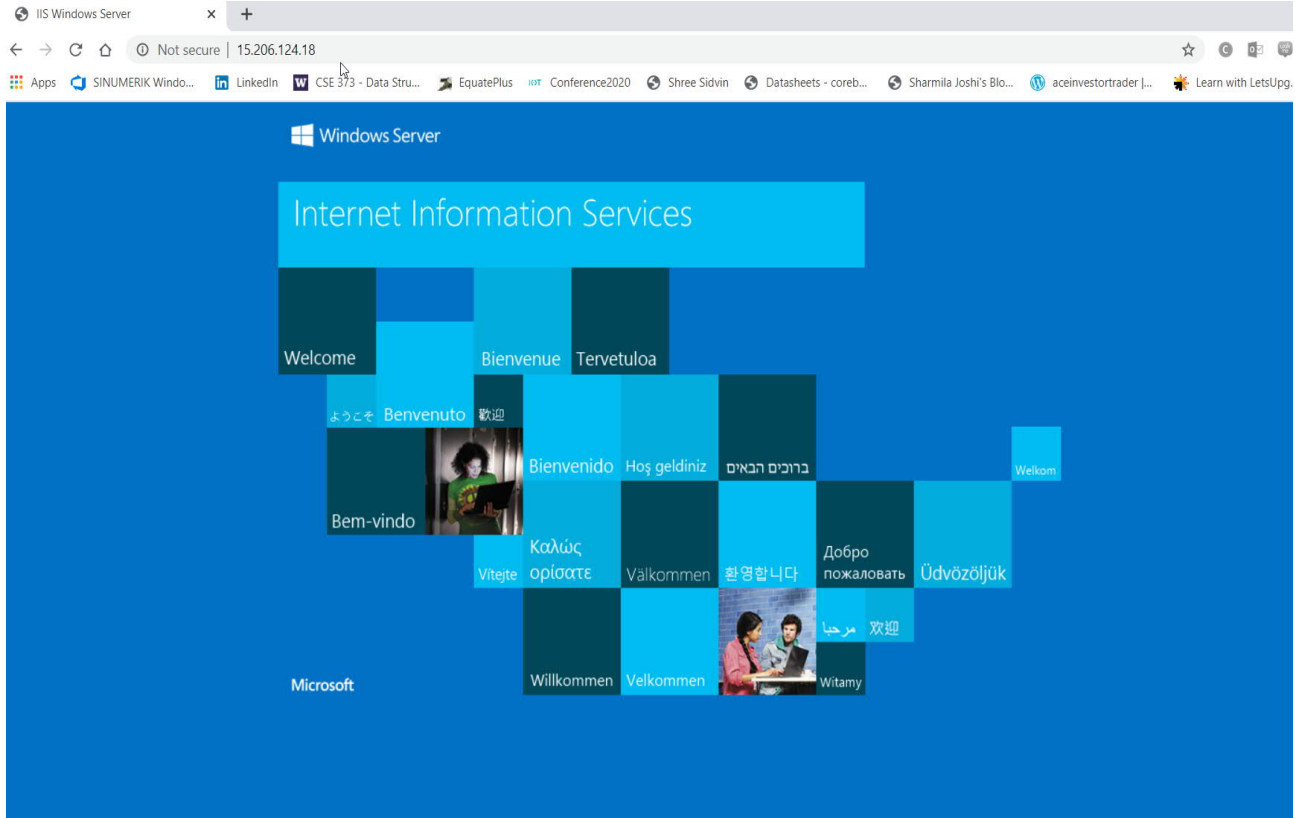
<input type="checkbox"/>	Name 	Instance ID 	Instance Type 	Availability Zone 	Instance State 	Status Checks 	Alarm Status	Public DNS (IPv4) 	IPv4 Public IP
<input type="checkbox"/>	ubuntu-18.04	i-0668c897a8519d31c	t2.micro	ap-south-1a	 running	 2/2 checks ...	None	 ec2-13-127-118-100.ap...	13.127.118.100
<input checked="" type="checkbox"/>	WindowsServer2019	i-0a90507724a6e06f2	t2.micro	ap-south-1a	 running	 2/2 checks ...	None	 ec2-15-206-124-18.ap...	15.206.124.18

Description				Status checks				Monitoring				Tags			
Instance ID		i-0a90507724a6e06f2		Public DNS (IPv4)		ec2-15-206-124-18.ap-south-1.compute.amazonaws.com									
Instance state		running		IPv4 Public IP		15.206.124.18									
Instance type		t2.micro		IPv6 IPs		-									
Finding		Opt-in to AWS Compute Optimizer for recommendations. <a href="#">Learn more</a>		Elastic IPs											
Private DNS		ip-172-31-32-228.ap-south-1.compute.internal		Availability zone		ap-south-1a									
Private IPs		172.31.32.228		Security groups		<a href="#">launch-wizard-1</a> . <a href="#">view inbound rules</a> . <a href="#">view outbound rules</a>									
Secondary private IPs				Scheduled events		<a href="#">No scheduled events</a>									
VPC ID		<a href="#">vpc-ce698da5</a>		AMI ID		<a href="#">Windows_Server-2019-English-Full-Base-2020.08.12 (ami-07f7b791cbd0812bf)</a>									
Subnet ID		<a href="#">subnet-2ddfd245</a>		Platform details		Windows									
Network interfaces		<a href="#">eth0</a>		Usage operation		RunInstances:0002									

## ❖ Webserver started on Windows session



## ❖ Webpages check done



## PROJECT 2:

Deploying a web server in Windows instance

- **Task 1:** Create a windows instance using AMI :Ubuntu Server 18.04 LTS (HVM)
- **Task 2:** Download and install MobaXterm Portable Edition AWS Essentials | August 2020
- **Task 3:** Launch the Ubuntu instance using SSH Note:Username is ubuntu
- **Task 4:** Install nginx web server using bash  
**Note:** Simply copy the command below and paste in the bash to install the nginx web server.  
**sudo apt-get -y update**  
**sudo apt-get -y install nginx**
- **Task 5:** Verify successful installation of nginx  
**Note :** You should be able to see the Welcome to nginx Web page when you paste the public IP into the browser.

## Solution:

### ❖ Ubuntu 18.04 instance create

The screenshot displays the AWS Management Console interface. At the top, there's a navigation bar with 'Resource Groups', a search icon, and user information 'Anandkumar C B' from 'Mumbai'. Below this is a toolbar with 'Launch Instance', 'Connect', and 'Actions' buttons. A search bar is present with the text 'Filter by tags and attributes or search by keyword'. The main table lists instances, with 'ubuntu-18.04' selected. Below the table, the instance details for 'i-0668c897a8519d31c' are shown, including its public DNS, IP address, and various configuration details.

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)	IPv4 Public IP
ubuntu-18.04	i-0668c897a8519d31c	t2.micro	ap-south-1a	running	2/2 checks ...	None	ec2-13-127-118-100.ap...	13.127.118.100
WindowsServer2019	i-0a90507724a6e06f2	t2.micro	ap-south-1a	running	2/2 checks ...	None	ec2-15-206-124-18.ap...	15.206.124.18

Instance: **i-0668c897a8519d31c (ubuntu-18.04)** Public DNS: **ec2-13-127-118-100.ap-south-1.compute.amazonaws.com**

Description		Status Checks	Monitoring	Tags
Instance ID	i-0668c897a8519d31c	Public DNS (IPv4)	ec2-13-127-118-100.ap-south-1.compute.amazonaws.com	
Instance state	running	IPv4 Public IP	13.127.118.100	
Instance type	t2.micro	IPv6 IPs	-	
Finding	Opt-in to AWS Compute Optimizer for recommendations. <a href="#">Learn more</a>	Elastic IPs		
Private DNS	ip-172-31-47-47.ap-south-1.compute.internal	Availability zone	ap-south-1a	
Private IPs	172.31.47.47	Security groups	launch-wizard-2. <a href="#">view inbound rules</a> . <a href="#">view outbound rules</a>	
Secondary private IPs		Scheduled events	No scheduled events	
VPC ID	vpc-ce698da5	AMI ID	ubuntu/images/hvm-ssd/ubuntu-bionic-18.04-amd64-	

## ❖ Connected to Ubuntu instance using putty

ubuntu@ip-172-31-47-47: ~

```
Using username "ubuntu".
Authenticating with public key "imported-openssh-key"
Welcome to Ubuntu 18.04.5 LTS (GNU/Linux 5.3.0-1032-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

System information as of Wed Aug 19 04:55:16 UTC 2020

System load:  0.0               Processes:           91
Usage of /:   14.4% of 7.69GB   Users logged in:    0
Memory usage: 17%              IP address for eth0: 172.31.47.47
Swap usage:   0%

0 packages can be updated.
0 updates are security updates.

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.
```

## ❖ Installed Ngnix

ubuntu@ip-172-31-47-47: ~

See "man sudo\_root" for details.

```
ubuntu@ip-172-31-47-47:~$ sudo apt-get update
Get:1 http://security.ubuntu.com/ubuntu bionic-security InRelease [88.7 kB]
Hit:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic InRelease
Get:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-updates InRelease [88.7 kB]
Get:4 http://security.ubuntu.com/ubuntu bionic-security/main amd64 Packages [811 kB]
Get:5 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-backports InRelease [74.6 kB]
Get:6 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic/universe amd64 Packages [8570 kB]
Get:7 http://security.ubuntu.com/ubuntu bionic-security/main Translation-en [254 kB]
Get:8 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic/universe Translation-en [4941 kB]
Get:9 http://security.ubuntu.com/ubuntu bionic-security/universe amd64 Packages [695 kB]
Get:10 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic/multiverse amd64 Packages [151 kB]
Get:11 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic/multiverse Translation-en [108 kB]
Get:12 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64 Packages [1036 kB]
Get:13 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-updates/main Translation-en [348 kB]
Get:14 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-updates/restricted amd64 Packages [85.1 kB]
Get:15 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-updates/restricted Translation-en [18.7 kB]
Get:16 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-updates/universe amd64 Packages [1100 kB]
Get:17 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-updates/universe Translation-en [342 kB]
Get:18 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-updates/multiverse amd64 Packages [19.4 kB]
Get:19 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-updates/multiverse Translation-en [6740 B]
Get:20 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-backports/main amd64 Packages [7516 B]
Get:21 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-backports/main Translation-en [4764 B]
Get:22 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-backports/universe amd64 Packages [7736 B]
Get:23 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-backports/universe Translation-en [4588 B]
Get:24 http://security.ubuntu.com/ubuntu bionic-security/universe Translation-en [230 kB]
```

```
ubuntu@ip-172-31-47-47:~$ sudo apt-get install nginx
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  fontconfig-config fonts-dejavu-core libfontconfig1 libgd3 libjpeg8
  libjpeg-turbo8 libnginx-mod-http-geoip
  libnginx-mod-http-image-filter libnginx-mod-http-xslt-filter
  libnginx-mod-mail libnginx-mod-stream libtiff5 libwebp6 libxpm4 nginx-common
  nginx-core
Suggested packages:
  libgd-tools fcgiwrap nginx-doc ssl-cert
The following NEW packages will be installed:
  fontconfig-config fonts-dejavu-core libfontconfig1 libgd3 libjpeg8
  libjpeg-turbo8 libnginx-mod-http-geoip
  libnginx-mod-http-image-filter libnginx-mod-http-xslt-filter
  libnginx-mod-mail libnginx-mod-stream libtiff5 libwebp6 libxpm4 nginx
  nginx-common nginx-core
0 upgraded, 18 newly installed, 0 to remove and 2 not upgraded.
Need to get 2462 kB of archives.
After this operation, 8210 kB of additional disk space will be used.
Do you want to continue? [Y/n] Y
Get:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64
libjpeg-turbo8 amd64 1.5.2-0ubuntu5.18.04.4 [110 kB]
Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic/main amd64 fonts-dejavu-core all 2.37-1 [1041 kB]
Get:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic/main amd64 fontconfig-config all 2.12.6-0ubuntu2 [55.8 kB]
Get:4 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic/main amd64 libfontconfig1 amd64 2.12.6-0ubuntu2 [137 kB]
Get:5 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic/main amd64 libjpeg8 amd64 8c-2ubuntu8 [2194 B]
Get:6 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic/main amd64 libjpeg-turbo8 amd64 2.1-3.1build1 [26.7 kB]
Get:7 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64 libtiff5 amd64 4.0.9-5ubuntu0.3 [153 kB]
Get:8 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic/main amd64 libwebp6 amd64 0.6.1-2 [185 kB]
Get:9 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic/main amd64 libxpm4 amd64 1:3.5.12-1 [34.0 kB]
Get:10 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64 libgd3 amd64 2.2.5-4ubuntu0.4 [119 kB]
Get:11 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64 nginx-common all 1.14.0-0ubuntu1.7 [37.4 kB]
```

## ❖ Connected to nginx webpage



## 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](https://nginx.org).  
Commercial support is available at [nginx.com](https://nginx.com).

*Thank you for using nginx.*