

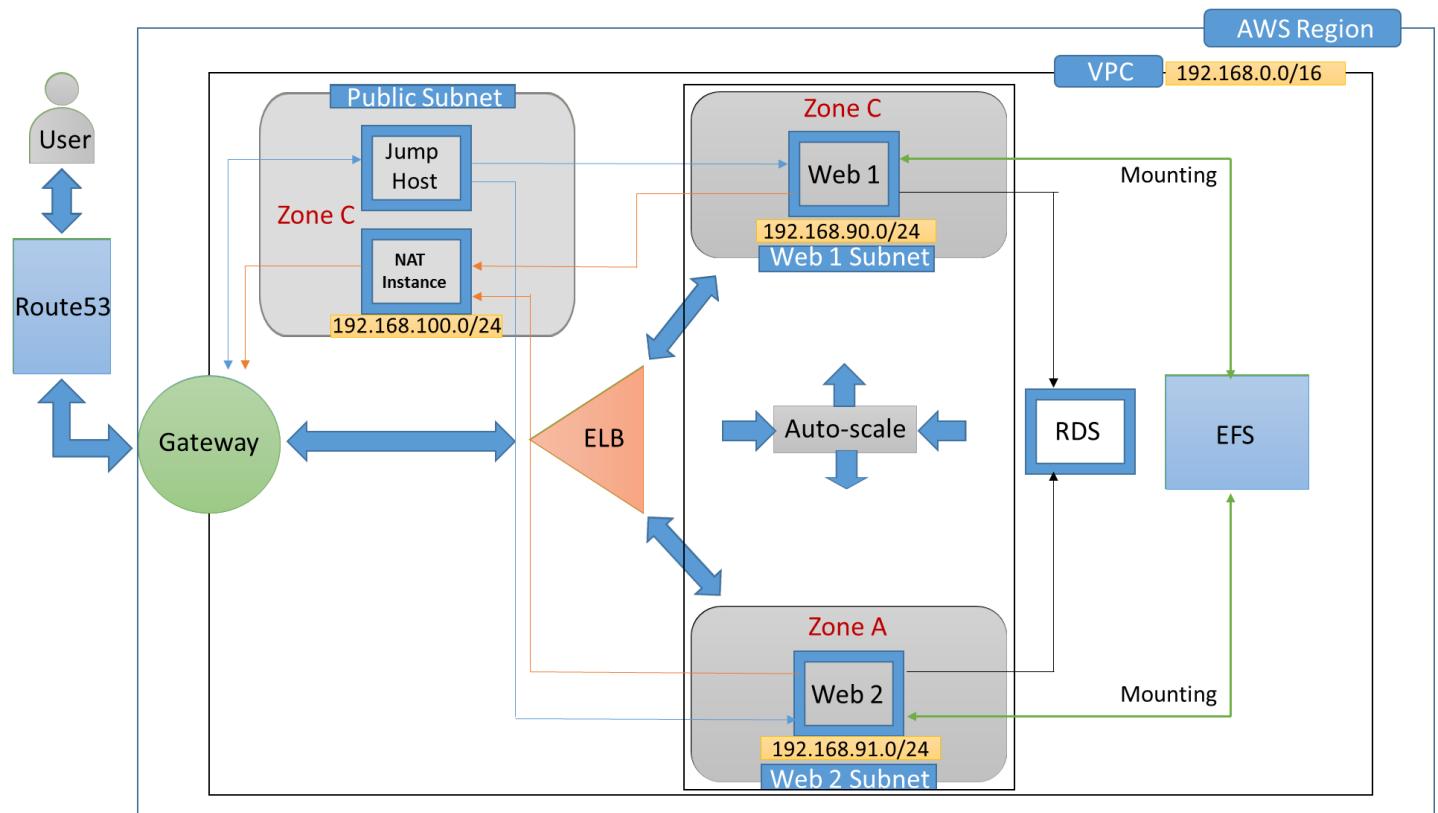
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- Set up prerequisites
  - Step 1: Create VPC
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# Introduction

In this project, you will learn how to deploy a high-availability LAMP stack web app using AWS EC2 Instance, VPC, Elastic Load Balancer, Route53, auto-scale, EFS and Amazon Relational Database Service (RDS). The stack uses Linux, Apache, mysql, and PHP. Using Linux EC2 Instance, you can simply configure Webserver and using Elastic Load Balancer you can distribute (Balance) the incoming traffic between two webservers in private subnets across different availability zones. Using Route53 you can give alias name to your Elastic Load balancer DNS name. Auto-scale automatically scales your machines (Webservers) up and down based on load on Webserver using easily adjustable Auto Scaling settings. Amazon RDS makes it easy to set up, operate, and scale a relational database in the cloud. It provides cost-efficient and resizable capacity while managing time-consuming database administration tasks.

# Project Block Diagram



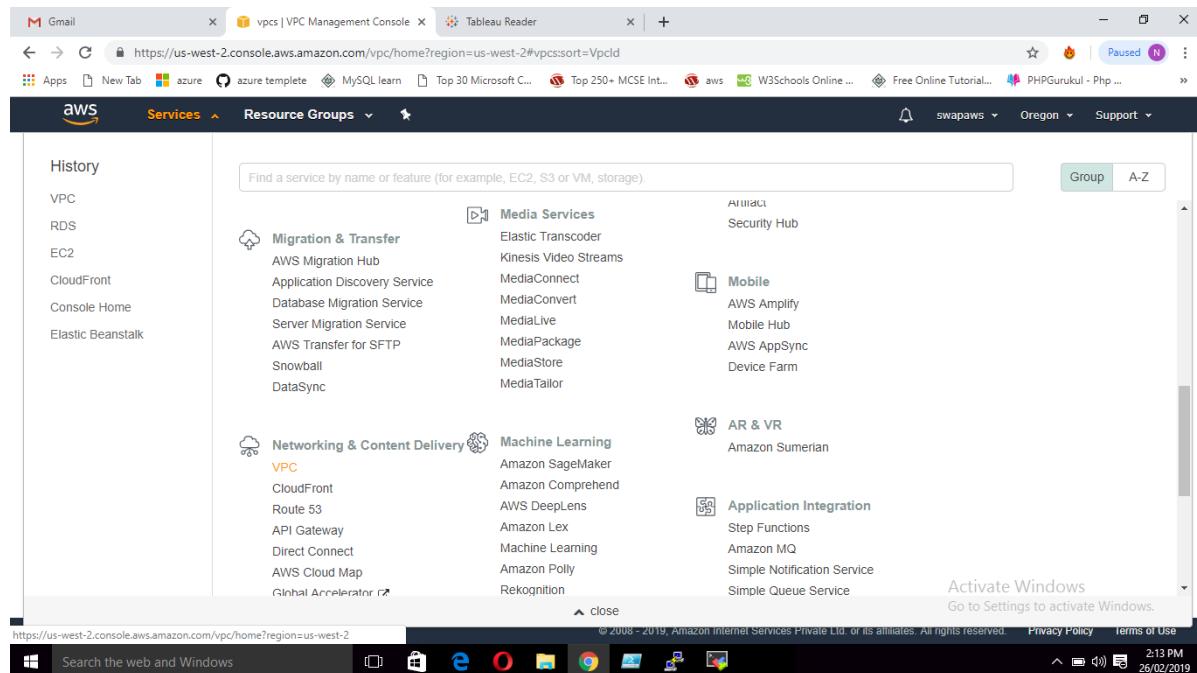
# Pre-Requisites

- 1) VPC With 2private & 1public Subnet
- 2) Ami For Web Server For Auto Scale
- 3) Nat Gateway / Instance
- 4) Load Balancer
- 5) Auto-Scale
- 6) Route53
- 7) Cloud-Front
- 8) Database
- 9) EFS

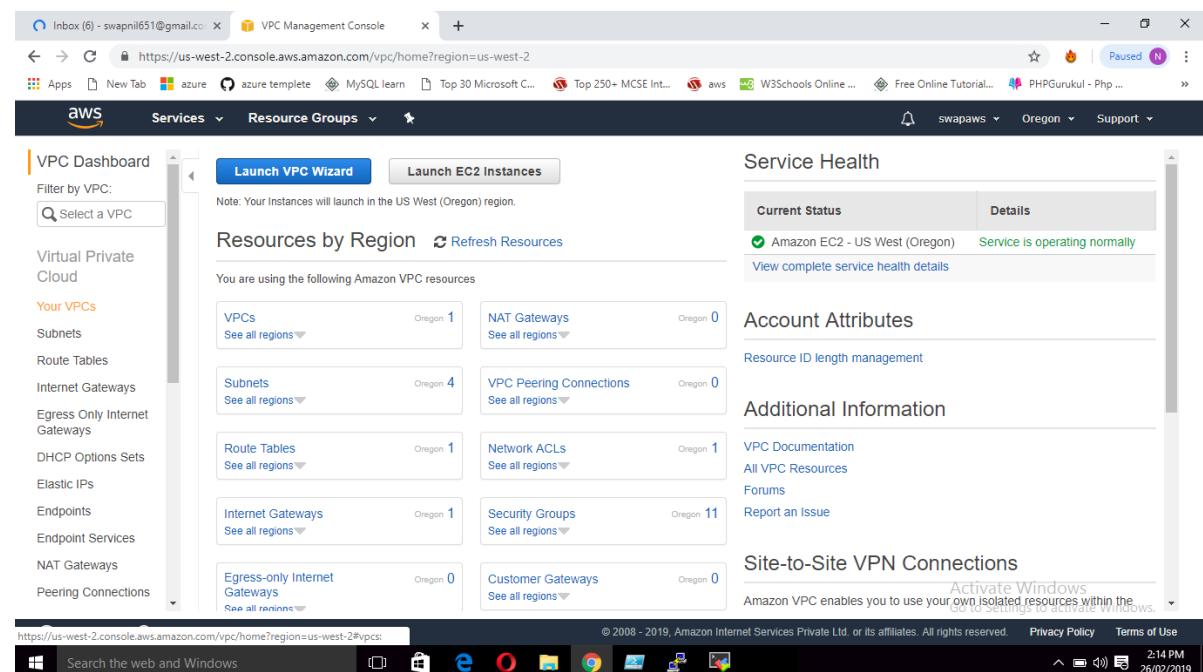
Note - For auto-scale first need RDS DNS name in your VPC, two webservers with insert.php and index.php, EFS endpoint name for mounting on var/html and test all setting regarding output on database and EFS mounting and then create AMI.

# 1) Create VPC

## a. Login In AWS Web Console And Go To Services > Network & content Delivery > VPC



## b. Click on your VPC and create VPC



VPC Dashboard

Filter by VPC:

Select a VPC

Virtual Private Cloud

Your VPCs

Subnets

Route Tables

Internet Gateways

Egress Only Internet Gateways

DHCP Options Sets

Elastic IPs

Endpoints

Endpoint Services

NAT Gateways

Peering Connections

Create VPC Actions

VPC: vpc-25ce125d

Description CIDR Blocks Flow Logs Tags

Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR	DHCP options set	Main Route table
default	vpc-25ce125d	available	172.31.0....	-	dopt-e1f52099	rtb-5e0eb025   default vp

Tenancy: default  
Default VPC: Yes  
Classic link: Disabled  
DNS resolution: Enabled  
DNS hostnames: Enabled  
Classical link DNS Support: Disabled

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2:16 PM 26/02/2019

### c. Enter name[project] & CIDR IP block[192.168.0.0/16]

VPCs > Create VPC

### Create VPC

A VPC is an isolated portion of the AWS cloud populated by AWS objects, such as Amazon EC2 instances. You must specify an IPv4 address range for your VPC. Specify the IPv4 address range as a Classless Inter-Domain Routing (CIDR) block; for example, 10.0.0.0/16. You cannot specify an IPv4 CIDR block larger than /16. You can optionally associate an Amazon-provided IPv6 CIDR block with the VPC.

Name tag: ProjectVpc

IPv4 CIDR block\*: 192.168.0.0/16

IPv6 CIDR block:

No IPv6 CIDR Block

Amazon provided IPv6 CIDR block

Tenancy: Default

\* Required

Create Cancel

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## d. Click on internet gateway

VPC Dashboard

Virtual Private Cloud

Your VPCs

Subnets

Route Tables

Internet Gateways

Egress Only Internet Gateways

DHCP Options Sets

Elastic IPs

Endpoints

Endpoint Services

NAT Gateways

Peering Connections

Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR	DHCP options set	Main Route table
ProjectVpc	vpc-084ff4103d2ac3926	available	192.168.0...	-	dopt-e1f52099	rtb-02cad3b6297bacbf3
default	vpc-25ce125d	available	172.31.0....	-	dopt-e1f52099	rtb-5e0eb025   default v...

VPCs: vpc-25ce125d, vpc-084ff4103d2ac3926

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https://us-west-2.console.aws.amazon.com/vpc/home?region=us-west-2#igws:

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VPC Dashboard

Virtual Private Cloud

Your VPCs

Subnets

Route Tables

Internet Gateways

Egress Only Internet Gateways

DHCP Options Sets

Elastic IPs

Endpoints

Endpoint Services

NAT Gateways

Peering Connections

Name	ID	State	VPC	Owner
default	igw-0e53e2b85bd0c9e37	attached	vpc-25ce125d   d...	882408123207

Internet gateway: igw-0e53e2b85bd0c9e37

Description Tags

ID: igw-0e53e2b85bd0c9e37 State: attached Attached VPC ID: vpc-25ce125d | default Owner: 882408123207

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## e. Create internet gateway and attach to VPC

The screenshot shows the 'Create internet gateway' page in the AWS VPC console. The URL is <https://us-west-2.console.aws.amazon.com/vpc/home?region=us-west-2#Create%20Internet%20Gateway:id=igw-0e53e2b85bd0c9e37>. The page title is 'Create internet gateway'. A 'Name tag' input field contains 'ProjectIGW'. Below it, a note says 'An internet gateway is a virtual router that connects a VPC to the internet. To create a new internet gateway specify the name for the gateway below.' A 'Create' button is visible at the bottom right.

The screenshot shows the 'Internet Gateways' list page in the AWS VPC console. The URL is <https://us-west-2.console.aws.amazon.com/vpc/home?region=us-west-2#igws:sort=internetGatewayId>. The page title is 'Internet Gateways'. A context menu is open over the 'Project-IGW' row, with options: 'Delete internet gateway', 'Attach to VPC', and 'Detach from VPC'. The table lists two entries:

Name	ID	VPC	Owner
Project-IGW	igw-045b2c48346e2a379	detached	882408123207
default	igw-0e53e2b85bd0c9e37	attached	vpc-25ce125d   d...

Below the table, a detailed view for the 'Project-IGW' gateway shows its ID as 'igw-045b2c48346e2a379', state as 'detached', and attached VPC ID as '-'. The owner is '882408123207'. A note at the bottom right says 'Activate Windows Go to Settings to activate Windows.'

Internet gateways > Attach to VPC

Attach to VPC

Attach an internet gateway to a VPC to enable communication with the internet. Specify the VPC you would like to attach below.

VPC\* Select a VPC

AWS Command Line Filter by attributes

VPC ID	Name
vpc-084ff4103d2ac3926	ProjectVpc

\* Required

Cancel Attach

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## f. Create subnets

### g. Private subnets

#### i. Web 1

Inbox (6) - swapnil651@gmail.co Attach to VPC | VPC Management Con... +

https://us-west-2.console.aws.amazon.com/vpc/home?region=us-west-2#subnets:sort=SubnetId

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aws Services Resource Groups

Create subnet Actions

Filter by tags and attributes or search by keyword

Name	Subnet ID	State	VPC	IPv4 CIDR	Available IPv4	IPv6 CIDR	Availability
default	subnet-0e9ed545	available	vpc-25ce125d   default	172.31.32.0/20	4090	-	US-W
default	subnet-606c4519	available	vpc-25ce125d   default	172.31.16.0/20	4091	-	US-W
default	subnet-94fb81bc	available	vpc-25ce125d   default	172.31.48.0/20	4091	-	US-W
default	subnet-e91028b3	available	vpc-25ce125d   default	172.31.0.0/20	4091	-	US-W

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https://us-west-2.console.aws.amazon.com/vpc/home?region=us-west-2#subnets:sort=SubnetId

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https://us-west-2.console.aws.amazon.com/vpc/home?region=us-west-2#CreateSubnet:

Paused N

Services Resource Groups

swapaws Oregon Support

Subnets > Create subnet

## Create subnet

Specify your subnet's IP address block in CIDR format; for example, 10.0.0.0/24. IPv4 block sizes must be between a /16 netmask and /28 netmask, and can be the same size as your VPC. An IPv6 CIDR block must be a /64 CIDR block.

Name tag: Web1

VPC\*: vpc-084ff4103d2ac3926

VPC CIDRs:

Name	ID	Status	Status Reason
vpc-25ce125d	default	Associated	
vpc-084ff4103d2ac3926	ProjectVpc	Associated	

Availability Zone: No preference

IPv4 CIDR block\*

\* Required

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Inbox (6) - swapnil651@gmail.co Create subnet | VPC Management

https://us-west-2.console.aws.amazon.com/vpc/home?region=us-west-2#CreateSubnet:

Paused N

Services Resource Groups

swapaws Oregon Support

Subnets > Create subnet

## Create subnet

Specify your subnet's IP address block in CIDR format; for example, 10.0.0.0/24. IPv4 block sizes must be between a /16 netmask and /28 netmask, and can be the same size as your VPC. An IPv6 CIDR block must be a /64 CIDR block.

Name tag: Web1

VPC\*: vpc-084ff4103d2ac3926

VPC CIDRs:

Name	ID	Status	Status Reason
No preference			
us-west-2a	usw2-az1	Associated	
us-west-2b	usw2-az2	Associated	
us-west-2c	usw2-az3	Associated	
us-west-2d	usw2-az4	Associated	

Availability Zone: us-west-2a

IPv4 CIDR block\*

\* Required

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Inbox (6) - swapnil651@gmail.co Create subnet | VPC Management

Subnets > Create subnet

Create subnet

Specify your subnet's IP address block in CIDR format; for example, 10.0.0.0/24. IPv4 block sizes must be between a /16 netmask and /28 netmask, and can be the same size as your VPC. An IPv6 CIDR block must be a /64 CIDR block.

Name tag: Web1

VPC\*: vpc-084ff4103d2ac3926

VPC CIDRs	CIDR	Status	Status Reason
	192.168.0.0/16	associated	

Availability Zone: us-west-2a

IPv4 CIDR block\*: 192.168.90.0/24

\* Required

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Go to Settings to activate Windows.

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## ii. Web 2

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Subnets > Create subnet

Create subnet

Specify your subnet's IP address block in CIDR format; for example, 10.0.0.0/24. IPv4 block sizes must be between a /16 netmask and /28 netmask, and can be the same size as your VPC. An IPv6 CIDR block must be a /64 CIDR block.

Name tag: Web2

VPC\*: vpc-084ff4103d2ac3926

VPC CIDRs	CIDR	Status	Status Reason
	192.168.0.0/16	associated	

Availability Zone: us-west-2b

IPv4 CIDR block\*: 192.168.91.0/24

\* Required

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## h. Public subnet

The screenshot shows the AWS VPC Management Console with the URL <https://us-west-2.console.aws.amazon.com/vpc/home?region=us-west-2#CreateSubnet>. The page is titled 'Create subnet'. It displays fields for 'Name tag' (Public), 'VPC\*' (vpc-084ff4103d2ac3926), 'Availability Zone' (us-west-2c), and 'IPv4 CIDR block\*' (192.168.100.0/24). A table shows 'VPC CIDRs' with one entry: CIDR 192.168.0.0/16 associated. A note at the bottom says 'Specify your subnet's IP address block in CIDR format; for example, 10.0.0.0/24. IPv4 block sizes must be between a /16 netmask and /28 netmask, and can be the same size as your VPC. An IPv6 CIDR block must be a /64 CIDR block.' A 'Create' button is visible at the bottom right.

## i. Create route table as follow

Route Name	Zone	Subnet Association	Route	Rule
Web 1	2a	Web 1	NAT Instance	0.0.0.0 / 0
Web 2	2b	Web 2	NAT Instance	0.0.0.0 / 0
Public	2c	Public	Internet Gateway	0.0.0.0 / 0

## a. Click on route tables

The screenshot shows the AWS VPC Management Console. On the left sidebar, under the 'Route Tables' category, the 'Route Tables' link is highlighted. In the main content area, there is a table titled 'Resources by Region' showing various VPC resources in the Oregon region. The 'Route Tables' row indicates 2 items. A 'Launch VPC Wizard' button is visible at the top.

VPCs	NAT Gateways	Subnets
Oregon 2	Oregon 0	Oregon 7
See all regions	See all regions	See all regions

Route Tables	VPC Peering Connections	Internet Gateways	Network ACLs	Security Groups	Customer Gateways
Oregon 2	Oregon 0	Oregon 2	Oregon 2	Oregon 4	Oregon 0
See all regions	See all regions	See all regions	See all regions	See all regions	See all regions

Egress-only Internet Gateways
Oregon 0
See all regions

**Service Health**

Current Status	Details
Amazon EC2 - US West (Oregon)	Service is operating normally

**Account Attributes**

Resource ID length management

**Additional Information**

VPC Documentation  
All VPC Resources  
Forums  
Report an Issue

**Site-to-Site VPN Connections**

Activate Windows  
Amazon VPC enables you to use your own isolated resources within the

## b. Click on create route table

The screenshot shows the 'Create route table' page in the AWS VPC Management Console. The left sidebar shows the 'Route Tables' category is selected. The main area displays a table of existing route tables, with two entries visible:

Name	Route Table ID	Explicitly Associated	Main	VPC ID	Owner
default vpc	rtb-5e0eb025	-	Yes	vpc-25ce125d   default	882408123207
	rtb-02cad3b6297bacbf3	-	Yes	vpc-084ff4103d2ac3926   Project...	882408123207

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## c. Select VPC

The screenshot shows the 'Create route table' step in the AWS VPC Management console. The 'Name tag' field contains 'Web 1'. The 'VPC' dropdown menu is open, showing two options: 'vpc-25ce125d' (selected) and 'vpc-084ff4103d2ac3926' (highlighted). A 'Create' button is visible on the right.

Activate Windows  
Go to Settings to activate Windows.

## d. Click on routes and edit routes

The screenshot shows the 'Routes' tab for the 'Web 1' route table. The table lists five routes:

Name	Route Table ID	Explicitly Associated	Main	VPC ID	Owner
default vpc	rtb-5e0eb025	-	Yes	vpc-25ce125d   default	882408123207
Web 2	rtb-08d353314a04e222a	-	No	vpc-084ff4103d2ac3926   Project...	882408123207
<b>Web 1</b>	<b>rtb-0e45ead4e1da51da7</b>	subnet-0570cb48...	No	vpc-084ff4103d2ac3926   Project...	882408123207
Public	rtb-08f6564ebd4b4f715	-	No	vpc-084ff4103d2ac3926   Project...	882408123207
	rtb-02cad3b6297bacb73	-	Yes	vpc-084ff4103d2ac3926   Project...	882408123207

Below the table, there are tabs for 'Summary', 'Routes' (selected), 'Subnet Associations', 'Route Propagation', and 'Tags'. An 'Edit routes' button is available. The status bar at the bottom indicates 'Activate Windows'.

## e. Target – Select NAT instance and give destination

The screenshot shows the AWS VPC Management Console with the 'Edit routes' page open. A route table entry for '192.168.0.0/16' is selected, and a dropdown menu is open, displaying four target options: 'Web1', 'Web2', 'Jump', and 'Nat-Instance'. The 'Nat-Instance' option is highlighted.



## f. Click on subnet association and edit subnet association

The screenshot shows the AWS VPC Management Console with the 'Create route table' page open. The 'Subnet Associations' tab is selected. A message at the bottom states 'You do not have any subnet associations.' The taskbar at the bottom shows the date and time as '26/02/2019'.

## g. Select Web1 subnet and save

The screenshot shows the AWS VPC Management Console. The URL is <https://us-west-2.console.aws.amazon.com/vpc/home?region=us-west-2#EditRouteTableSubnetAssociations:routeTableId=rtb-0e45ead4e1da51da7>. The page title is "Edit subnet associations". The route table selected is "rtb-0e45ead4e1da51da7 (Web 1)". The "Associated subnets" dropdown shows "subnet-0570cb48933fc121e". A table lists three subnets:

Subnet ID	IPv4 CIDR	IPv6 CIDR	Current Route Table
subnet-0841c129808f3eeef1   Public	192.168.100.0/24	-	Main
subnet-0570cb48933fc121e   Web1	192.168.90.0/24	-	Main
subnet-05bcac059796fe707   Web2	192.168.91.0/24	-	Main

At the bottom right, there are "Activate Windows", "Cancel", and "Save" buttons. The status bar at the bottom indicates "Go to Settings to activate Windows.", "Privacy Policy", "Terms of Use", "3:36 PM", and "26/02/2019".

## h. Create route table for Web 2 and select VPC

The screenshot shows the AWS VPC Management Console. The URL is <https://us-west-2.console.aws.amazon.com/vpc/home?region=us-west-2#CreateRouteTable>. The page title is "Create route table". The sub-header is "Route Tables > Create route table". A note says "A route table specifies how packets are forwarded between the subnets within your VPC, the internet, and your VPN connection." The form fields are:

- Name tag: Web 2
- VPC\*: [vpc-084ff4103d2ac3926](#)

At the bottom right, there are "Required", "Cancel", and "Create" buttons. The status bar at the bottom indicates "Activate Windows", "Go to Settings to activate Windows.", "Privacy Policy", "Terms of Use", "3:34 PM", and "26/02/2019".

## i. Select instance

The screenshot shows the AWS VPC Management console with the 'Edit routes' page. A route table entry for '192.168.0.0/16' has its target set to 'local'. A dropdown menu is open, showing options like 'Egress Only Internet Gateway Instance', 'Internet Gateway', 'NAT Gateway', etc. The 'Save routes' button is visible at the bottom right.

## j. Select NAT instance

The screenshot shows the AWS VPC Management console with the 'Edit routes' page. A route table entry for '192.168.0.0/16' has its target set to 'local'. A dropdown menu is open, showing options like 'i-0fa02635c93973f7c Web1', 'i-0e6ec8a431b522dec Web2', 'i-07387f8aa35f0762b Jump', and 'i-0979d6baedd262c1e Nat-Instance'. The 'Save routes' button is visible at the bottom right.

## k. Give destination

The screenshot shows the AWS VPC Management Console with the URL <https://us-west-2.console.aws.amazon.com/vpc/home?region=us-west-2#EditRoutes:routeTableId=rtb-0e45ead4e1da51da7>. The 'Edit routes' section is displayed, showing a table with one row:

Destination	Target	Status	Propagated
192.168.0.0/16	local	active	No
0.0.0.0	i-0979d6baedd262c1e	No	
0.0.0.0			

\* Required Cancel Save routes

Activate Windows  
Go to Settings to activate Windows.

## l. Click on save routes

The screenshot shows the AWS VPC Management Console with the URL <https://us-west-2.console.aws.amazon.com/vpc/home?region=us-west-2#EditRoutes:routeTableId=rtb-0e45ead4e1da51da7>. The 'Edit routes' section is displayed, showing a table with one row:

Destination	Target	Status	Propagated
192.168.0.0/16	local	active	No
0.0.0.0/0	i-0979d6baedd262c1e	No	

**Add route**

\* Required Cancel Save routes

Activate Windows  
Go to Settings to activate Windows.

## m. Select Web 2 subnet and save

Route table rtb-08d353314a04e222a (Web 2)

Associated subnets: subnet-05bcac059796fe707

Subnet ID	IPv4 CIDR	IPv6 CIDR	Current Route Table
subnet-0841c12980f3eef1   Public	192.168.100.0/24	-	Main
subnet-0570cb4893fc121e   Web1	192.168.90.0/24	-	rtb-0e45ead4e1da51da7
subnet-05bcac059796fe707   Web2	192.168.91.0/24	-	Main

\* Required

Activate Windows Cancel Save

Go to Settings to activate Windows.

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## n. Create route for Public

Route Tables > Edit routes

Edit routes

Destination	Target	Status	Propagated
192.168.0.0/16	local	active	No

Add route

\* Required

Egress Only Internet Gateway  
Instance  
**Internet Gateway**  
NAT Gateway  
Network Interface  
Peering Connection  
Transit Gateway  
Virtual Private Gateway

Cancel Save routes

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## o. Select Public subnet and save

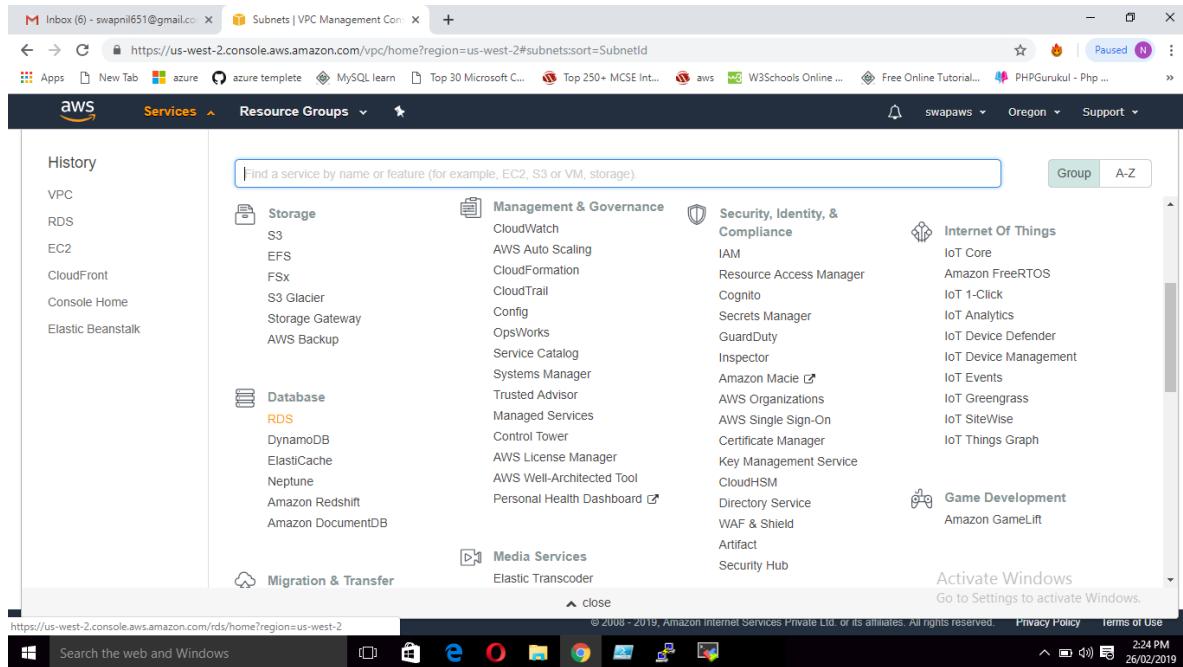
The screenshot shows the AWS VPC console with the URL <https://us-west-2.console.aws.amazon.com/vpc/home?region=us-west-2#EditRouteTableSubnetAssociations:routeTableId=rtb-08f6564ebd4b4f715>. The page title is "Edit subnet associations". The route table selected is "rtb-08f6564ebd4b4f715 (Public)". The "Associated subnets" dropdown contains "subnet-0841c129808f3eef1". A table lists three subnets:

Subnet ID	IPv4 CIDR	IPv6 CIDR	Current Route Table
subnet-0841c129808f3eef1   Public	192.168.100.0/24	-	Main
subnet-0570cb4893fc121e   Web1	192.168.90.0/24	-	rtb-0e45ead4e1da51da7
subnet-05bcac059796fe707   Web2	192.168.91.0/24	-	rtb-08d353314a04e222a

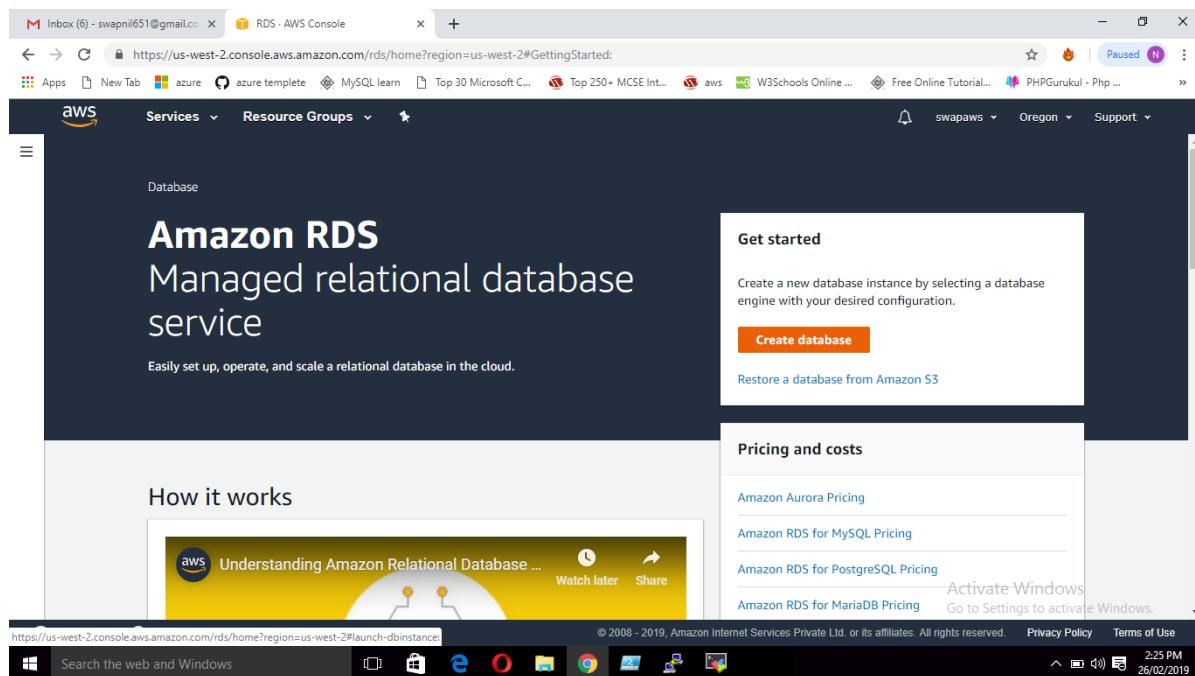
The browser status bar shows "Activate Windows" and "Go to Settings". The taskbar at the bottom includes icons for Feedback, English (US), Search, Task View, Start, File Explorer, Edge, Google Chrome, File Explorer, Task View, and File Explorer.

## 2) Create RDS Database

### a. Go to Database service and click on RDS



### b. Create Database



## c. Select MySQL

The screenshot shows the AWS RDS console with the URL <https://us-west-2.console.aws.amazon.com/rds/home?region=us-west-2#launch-dbinstance:s3-import=false>. The main content area displays information about Amazon Aurora, including its features and edition options (MySQL 5.6-compatible, MySQL 5.7-compatible, PostgreSQL-compatible). A prominent callout box highlights the "Aurora global database feature is now available." with a "Try it now" button. At the bottom, there is a checkbox for "Only enable options eligible for RDS Free Usage Tier" and a "Next" button.

The screenshot shows the "Create database" wizard at Step 1: "Select engine". The left sidebar lists steps: Step 1 (Select engine), Step 2 (Specify DB details), and Step 3 (Configure advanced settings). The main area is titled "Select engine" and contains a "Engine options" section. It shows six engine choices with their respective icons: Amazon Aurora, MySQL (selected), MariaDB, PostgreSQL, Oracle, and Microsoft SQL Server. Below the MySQL option, a description states: "MySQL is the most popular open source database in the world. MySQL on RDS offers the rich features of the MySQL database with the added benefits of automatic backup and restore, multi-region replication, and more." A "Next" button is visible at the bottom right.

The screenshot shows the AWS RDS console for MySQL. At the top, there are three service icons: Oracle Database, Oracle, and Microsoft SQL Server. Below them, a section titled "MySQL" provides an overview of the service, mentioning its popularity as the most popular open-source database and its features like support for up to 32 TiB of storage and various instance classes. A callout box highlights the "Aurora global database feature is now available." A "Try it now" button is present. At the bottom of the page, there's a checkbox for "Only enable options eligible for RDS Free Usage Tier" and a "Next" button.

## d. Enter setting details

The screenshot shows the "Settings" configuration page for creating a new MySQL DB instance. It includes fields for "DB instance identifier" (set to "Project"), "Master username" (set to "root"), "Master password" (set to "\*\*\*\*\*"), and "Confirm password". The "Master password" field has a note indicating it must be at least eight characters long and cannot contain certain special characters. Navigation buttons "Cancel", "Previous", and "Next" are visible at the bottom, along with an "Activate Windows" link.

e. Next

f. Select our VPC

Step 1  
Select engine

Step 2  
Specify DB details

Step 3  
Configure advanced settings

RDS > Create database

### Configure advanced settings

#### Network & Security

Virtual Private Cloud (VPC) [Info](#)  
VPC defines the virtual networking environment for this DB instance.

Default VPC (vpc-25ce125d) [C](#)

Default VPC (vpc-25ce125d)

ProjectVpc (vpc-084ff4103d2ac3926)

Create new VPC

selected.

default

Public accessibility [Info](#)

Yes  
EC2 instances and devices outside of the VPC hosting the DB instance will connect to the DB instances. You must also select one or more VPC security groups that specify which EC2 instances and devices can connect to the DB instance.

No  
DB instance will not have a public IP address assigned. No EC2 instance or devices outside of the VPC will be able to connect.

Availability zone [Info](#)

Feedback English (US)

Search the web and Windows

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Activate Windows Go to Settings to activate Windows.

2:27 PM 26/02/2019

g. Select project VPC

h. Select availability zone

Public accessibility [Info](#)

Yes  
EC2 instances and devices outside of the VPC hosting the DB instance will connect to the DB instances. You must also select one or more VPC security groups that specify which EC2 instances and devices can connect to the DB instance.

No  
DB instance will not have a public IP address assigned. No EC2 instance or devices outside of the VPC will be able to connect.

Availability zone [Info](#)

No preference

No preference

us-west-2a

us-west-2b

us-west-2c

Database options

Database name [Info](#)

dbname

Note: if no database name is specified then no initial MySQL database will be created on the DB Instance.

Port [Info](#)

TCP/IP port the DB instance will use for application connections.

Feedback English (US)

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Inbox (6) - swapnil651@gmail.co RDS - AWS Console https://us-west-2.console.aws.amazon.com/rds/home?region=us-west-2#launch-dbinstance:s3-import=false Paused

AWS Services Resource Groups

### Database options

Database name [Info](#)  
Project

Note: if no database name is specified then no initial MySQL database will be created on the DB Instance.

Port [Info](#)  
TCP/IP port the DB instance will use for application connections.

DB parameter group [Info](#)

Option group [Info](#)

IAM DB authentication [Info](#)  
 Enable IAM DB authentication  
Manage your database user credentials through AWS IAM users and roles.  
 Disable

Activate Windows Go to Settings to activate Windows.

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Inbox (6) - swapnil651@gmail.co RDS - AWS Console https://us-west-2.console.aws.amazon.com/rds/home?region=us-west-2#launch-dbinstance:s3-import=false Paused

AWS Services Resource Groups

### Maintenance

Auto minor version upgrade [Info](#)  
 Disable auto minor version upgrade  
Enables automatic upgrades to new minor versions as they are released. The automatic upgrades occur during the maintenance window for the DB instance.

Enable auto minor version upgrade

### Deletion protection

Enable deletion protection  
Protects the database from being deleted accidentally. While this option is enabled, you can't delete the database.

Cancel Previous Create database Activate Windows Go to Settings to activate Windows.

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Inbox (6) - swapnil651@gmail.co RDS - AWS Console https://us-west-2.console.aws.amazon.com/rds/home?region=us-west-2#dbinstance:id=project

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AWS Services Resource Groups

## Amazon RDS

Databases

Dashboard Performance Insights Snapshots Automated backups Reserved instances Subnet groups Parameter groups Option groups Events Event subscriptions Recommendations

Feedback English (US)

CloudWatch (17) Add instance to compare Monitoring Last Hour

Summary

Engine MySQL 5.6.40	DB instance class Info db.t2.micro	DB instance status Pending maintenance creating
---------------------	------------------------------------	---

CPU Utilization (Percent) DB Connections (Count)

Activate Windows Go to Settings to activate Windows.

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The screenshot shows the AWS RDS console with the 'Databases' section selected. A database named 'project' is selected. The 'Summary' card displays details such as the engine (MySQL 5.6.40), DB instance class (db.t2.micro), and current status (creating). Below the summary are two charts: 'CPU Utilization (Percent)' and 'DB Connections (Count)'. The bottom of the page includes navigation links for feedback, language selection, and system status.

Inbox (6) - swapnil651@gmail.co RDS - AWS Console https://us-west-2.console.aws.amazon.com/rds/home?region=us-west-2#database:id=project;is-cluster=false

Apps New Tab azure MySQL learn Top 30 Microsoft C... Top 250+ MCSE Int... aws W3Schools Online ... Free Online Tutorial... PHPGurukul - Php ...

AWS Services Resource Groups

## Amazon RDS

Databases

Dashboard Performance Insights Snapshots Automated backups Reserved instances Subnet groups Parameter groups Option groups Events Event subscriptions Recommendations

Connectivity & security Monitoring Logs & events Configuration Maintenance & backups Tags

DB Name project CPU 1.48% Info Available Class db.t2.micro

Role Instance Current activity 0 Connections Engine MySQL Region & AZ us-west-2b

Connectivity & security

Endpoint & port Networking Security

Endpoint project.ccvefilhltyg.us-west-2.rds.amazonaws.com Availability zone us-west-2b VPC security groups rds-launch-wizard (sg-06f9352b737b3cd46) (active)

Port 3306 VPC ProjectVpc (vpc-084ff4103d2ac3926)

Subnet group default-vpc-084ff4103d2ac3926 Public accessibility No Activate Windows Certificate authority settings to activate Windows.

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Feedback English (US) Search the web and Windows 2:48 PM 26/02/2019

The screenshot shows the AWS RDS console with the 'Connectivity & security' tab selected. It displays endpoint information (Endpoint: project.ccvefilhltyg.us-west-2.rds.amazonaws.com, Port: 3306), networking details (Availability zone: us-west-2b, VPC: ProjectVpc (vpc-084ff4103d2ac3926)), and security settings (VPC security groups: rds-launch-wizard (sg-06f9352b737b3cd46) (active)). The bottom of the page includes navigation links for feedback, language selection, and system status.

## i. Select security options as per requirement

The screenshot shows the AWS EC2 Management Console interface. On the left, there is a navigation sidebar with various services like EC2 Dashboard, Events, Tags, Reports, Limits, Instances, Launch Templates, Spot Requests, Reserved Instances, Dedicated Hosts, Scheduled Instances, Capacity Reservations, AMIs, Bundle Tasks, and EBS Volumes. The main content area is titled 'Create Security Group' and shows a table with one row for the security group 'sg-06f9352b737b3cd46'. The details for this group are displayed below the table, including the group name 'rds-launch-wizard', group ID 'sg-06f9352b737b3cd46', VPC ID 'vpc-084ff4103d2ac3926', and a description 'Created from the RDS Management Console: 2019/02/26...'. Below the table, there are tabs for Description, Inbound, Outbound, and Tags. The 'Inbound' tab is selected. At the bottom of the page, there is a note to 'Activate Windows'.

This screenshot is identical to the previous one, showing the 'Create Security Group' screen. However, the 'Inbound' tab is now selected, revealing a table with a single row for an inbound rule. The rule details are: Type 'MySQL/Aurora', Protocol 'TCP', Port Range '3306', and Source '49.14.204.66/32'. There is also a note to 'Activate Windows' at the bottom.

The screenshot shows the AWS EC2 Management Console with the 'Edit inbound rules' dialog box open. The 'Source' dropdown menu is open, showing options like 'Custom', 'Anywhere', and 'My IP'. The 'Custom' option is selected, with the IP address '49.14.204.66/32' entered. A note at the bottom of the dialog box states: 'NOTE: Any edits made on existing rules will result in the edited rule being deleted and a new rule created with the new details. This will cause traffic that depends on that rule to be dropped for a very brief period of time until the new rule can be created.' The 'Save' button is at the bottom right of the dialog.

This screenshot is identical to the one above it, showing the 'Edit inbound rules' dialog box. The difference is in the 'Source' dropdown, which now has 'Anywhere' selected with the value '0.0.0.0/0, ::/0'. The rest of the interface, including the table below and the status bar at the bottom, remains the same.

j. Give database name and click on create

### 3) Create EFS

#### a. Open EFS Console

The screenshot shows the AWS Management Console with the 'Services' menu open. Under the 'Storage' category, 'EFS' is highlighted in orange. Other options in the Storage section include S3, FSx, S3 Glacier, Storage Gateway, and AWS Backup. The rest of the page displays a search bar, a history sidebar, and various AWS services listed under categories like CloudSearch, Elasticsearch Service, Kinesis, QuickSight, Data Pipeline, AWS Glue, and MSK.

#### b. Create File System

The screenshot shows the 'Elastic File System Management' page. At the top, there's a large icon of a stack of files with a red plus sign. Below it, the text 'Amazon Elastic File System (EFS)' is displayed. A subtext states 'Amazon EFS provides file storage for use with your EC2 instances.' Two buttons are present: 'Create file system' (in blue) and 'Getting started guide' (in grey). The bottom of the page features two sections: 'Create' (with an icon of a folder containing a plus sign) and 'Access' (with an icon of a cloud and a double-headed arrow). A note at the bottom left says 'Create an Amazon EFS file system to store your files in the...'. A note at the bottom right says 'You can easily administer your file system using the Amazon EFS console, CLI, and SDK.' The status bar at the bottom indicates '2:58 PM 26/02/2019'.

## c. Select VPC

The screenshot shows the 'Create file system' wizard on the AWS EFS Management console. The current step is 'Step 1: Configure file system access'. A dropdown menu for 'VPC' is open, showing two options: 'vpc-25ce125d - default' (selected) and 'vpc-084ff4103d2ac3926 - ProjectVpc'. Below the dropdown, a note says: 'Instances connect to a file system by using mount targets you create. We recommend creating a mount target in each of your VPC's Availability Zones so that EC2 instances across your VPC can access the file system.' A table below lists three availability zones: us-west-2a, us-west-2b, and us-west-2c, each associated with a subnet and security group.

	Availability Zone	Subnet	IP address	Security groups
<input checked="" type="checkbox"/>	us-west-2a	subnet-606c4519 - default (default)	Automatic	sg-6fa27c19 - default
<input checked="" type="checkbox"/>	us-west-2b	subnet-0e9ed545 - default (default)	Automatic	sg-6fa27c19 - default
<input checked="" type="checkbox"/>	us-west-2c	subnet-e91028b3 - default (default)	Automatic	sg-6fa27c19 - default

## d. Select all availability zones

The screenshot shows the 'Create mount targets' step of the AWS EFS wizard. It lists three availability zones: us-west-2a, us-west-2b, and us-west-2c. Each zone is associated with a specific subnet and a security group. The table has columns for Availability Zone, Subnet, IP address (Automatic), and Security groups.

	Availability Zone	Subnet	IP address	Security groups
<input checked="" type="checkbox"/>	us-west-2a	subnet-0570cb48933fc121e - Web1	Automatic	sg-0711e4bfa0b31f49c - default
<input checked="" type="checkbox"/>	us-west-2b	subnet-05bcac059796fe707 - Web2	Automatic	sg-0711e4bfa0b31f49c - default
<input checked="" type="checkbox"/>	us-west-2c	subnet-0841c129808f3ee1 - Public	Automatic	sg-0711e4bfa0b31f49c - default
<input type="checkbox"/>	us-west-2d			

## e. Add security groups

## f. Name = any name

Step 1: Configure file system access

**Step 2: Configure optional settings**

Step 3: Review and create

Configure optional settings

Add tags

You can add tags to describe your file system. A tag consists of a case-sensitive key-value pair. (For example, you can define a tag with key-value pair with key = Corporate Department and value = Sales and Marketing.) At a minimum, we recommend a tag with key = Name.

Key	Value	Remove
Name	ProjectEFS	(remove)
Add New Key		

Choose performance mode

We recommend **General Purpose** performance mode for most file systems. **Max I/O** performance mode is optimized for applications where tens, hundreds, or thousands of EC2 instances are accessing the file system — it scales to higher levels of aggregate throughput and operations per second with a tradeoff of slightly higher latencies for file operations.

## g. Next

Step 1: Configure file system access

**Step 2: Configure optional settings**

Step 3: Review and create

Configure optional settings

**Provisioned**

Enable encryption

If you enable encryption for your file system, all data on your file system will be encrypted at rest. You can select a KMS key from your account to protect your file system, or you can provide the ARN of a key from a different account. Encryption of data at rest can only be enabled during file system creation. Encryption of data in transit is configured when mounting your file system. [Learn more](#)

Enable encryption of data at rest

Enable lifecycle management

EFS **Lifecycle Management** automatically moves files to the lower-cost Infrequent Access storage class based on a predefined lifecycle policy. The Infrequent Access storage class has higher first-byte latency than the Standard storage class. Lifecycle policies apply to all files in your file system. Access charges apply. [Learn more](#)

Enable Lifecycle Management

Activate Windows

Cancel Previous Next Step Go to Settings to activate Windows

Feedback English (US)

Search the web and Windows

## h. Create file system

The screenshot shows the AWS EFS Management console. In the top navigation bar, there are tabs for 'Inbox (7)', 'RDS - AWS Console', and 'Elastic File System Management'. Below the tabs, there is a toolbar with icons for 'Apps', 'New Tab', 'azure', 'azure template', 'MySQL learn', 'Top 30 Microsoft C...', 'Top 250+ MCSE Int...', 'aws', 'W3Schools Online...', 'Free Online Tutorial...', 'PHPGurukul - Php ...', and a search bar.

The main content area is titled 'File system access' and displays a table of VPC configurations:

VPC	Availability Zone	Subnet	IP address	Security groups
vpc-084ff4103d2ac3926 - ProjectVpc	us-west-2a	subnet-0570cb48933fc121e - Web1	Automatic	sg-0711e4bfa0b31f49c - default
	us-west-2b	subnet-05bcac059796fe707 - Web2	Automatic	sg-0711e4bfa0b31f49c - default
	us-west-2c	subnet-0841c129808f3eeef1 - Public	Automatic	sg-0711e4bfa0b31f49c - default
	us-west-2d	Not configured		

Below the table, there is a section titled 'Optional settings' containing the following configuration:

Tags	Name: ProjectEfs
Performance mode	General Purpose
Throughput mode	Bursting
Encrypted	No
Lifecycle policy	None

At the bottom right of the page, there are buttons for 'Cancel', 'Activate Windows', 'Previous', 'Create File System', and 'Go to Settings to activate Windows.'

The screenshot shows the AWS EFS Management console with the 'File systems' tab selected. The top navigation bar includes 'Feedback', 'English (US)', a search bar, and links for 'Privacy Policy' and 'Terms of Use'. The date '26/02/2019' is also visible.

The main content area displays the 'File systems' table with one entry:

	Name	File system ID	Metered size	Number of mount targets	Creation date
ProjectEfs	fs-d1b99279	6.0 KiB	3	02/26/2019, 09:32:42 UTC	

Below the table, there are sections for 'Other details' and 'File system access'. The 'Other details' section shows the following configuration:

Owner ID	882408123207
File system state	Available
Performance mode	General Purpose
Throughput mode	Bursting
Encrypted	No
Lifecycle policy	None

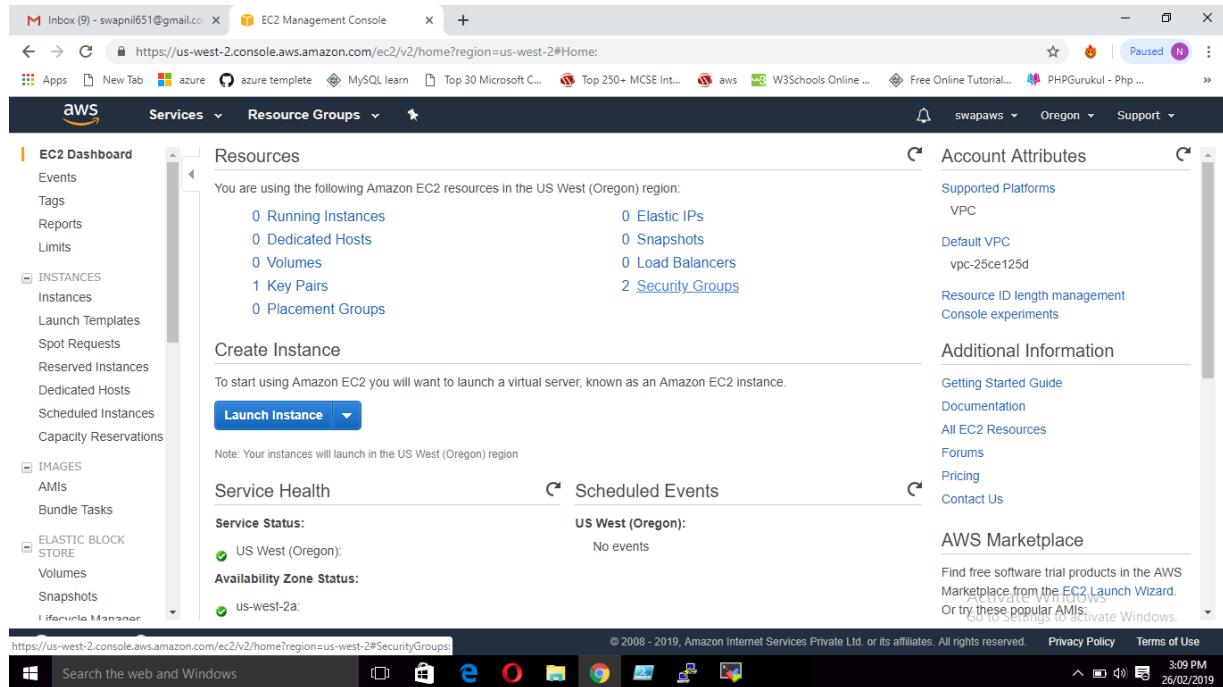
The 'File system access' section shows the DNS name: [fs-d1b99279.efs.us-west-2.amazonaws.com](https://fs-d1b99279.efs.us-west-2.amazonaws.com).

At the bottom right of the page, there are buttons for 'Manage file system access', 'Activate Windows', and 'Go to Settings to activate Windows.'

- i. After creation of EFS mount it on /var/www/html in both Web1 and Web2 with following command  
`#mount /var/www/html /efs DNS name`

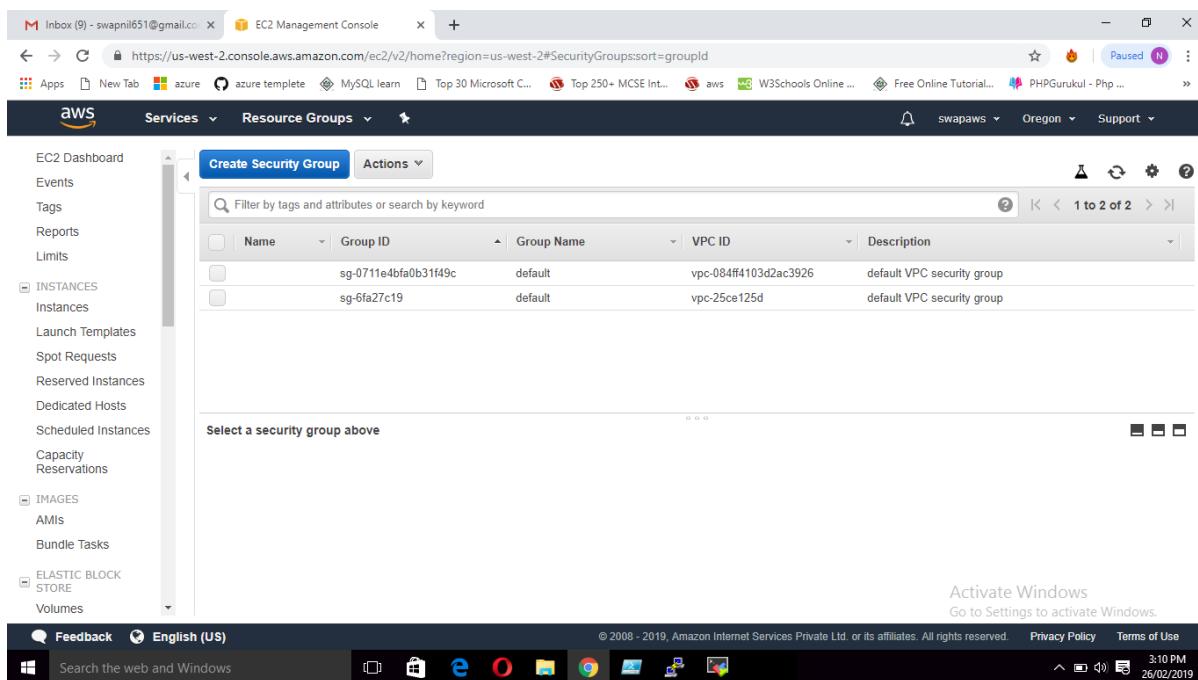
## 4) Create security group

### i. Open the amazon EC2 console



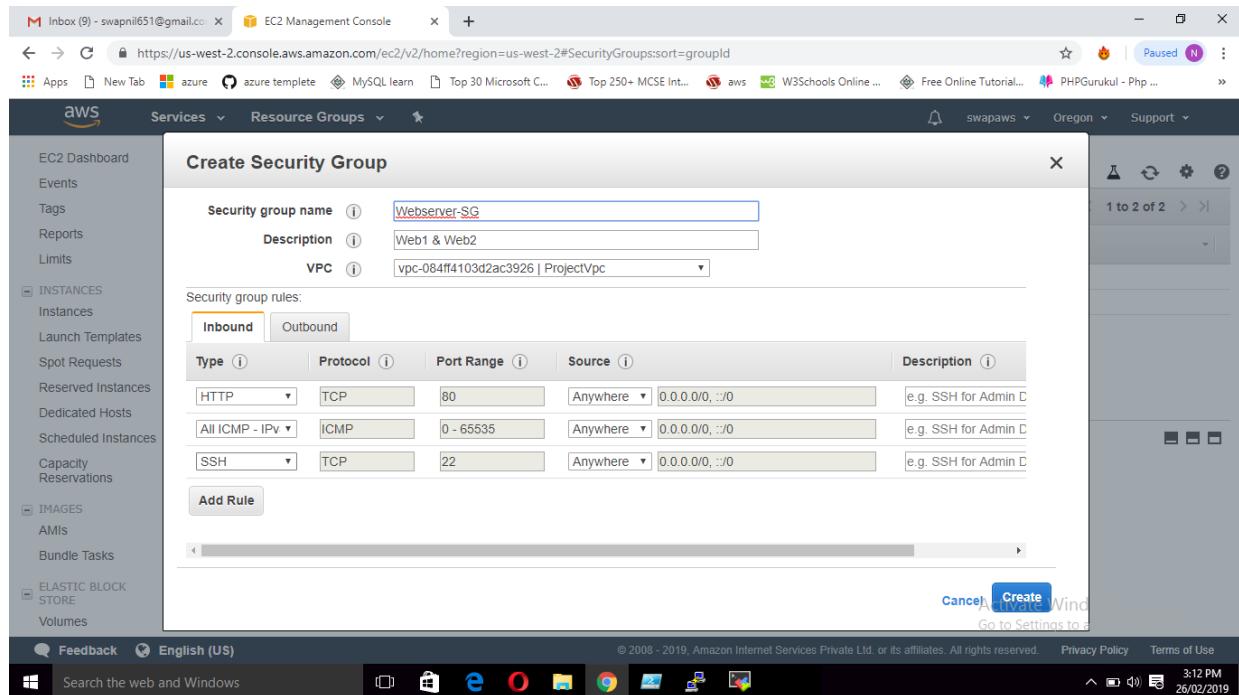
The screenshot shows the AWS EC2 Management Console dashboard for the US West (Oregon) region. The left sidebar lists various services like EC2 Dashboard, Instances, Images, and Elastic Block Store. The main panel displays resource counts: 0 Running Instances, 0 Dedicated Hosts, 0 Volumes, 1 Key Pairs, 0 Placement Groups, 0 Elastic IPs, 0 Snapshots, 0 Load Balancers, and 2 Security Groups. A 'Launch Instance' button is prominent. On the right, there's an 'Account Attributes' section showing VPC and Default VPC details, and an 'Additional Information' section with links to documentation and forums.

### ii. Choose security groups, and then click create security group.



The screenshot shows the 'Create Security Group' page. The left sidebar is identical to the previous dashboard. The main area features a table titled 'Create Security Group' with columns for Name, Group ID, Group Name, VPC ID, and Description. Two existing security groups are listed: 'sg-0711e4bfa0b31f49c' (Group Name: default, VPC ID: vpc-084ff4103d2ac3926) and 'sg-6fa27c19' (Group Name: default, VPC ID: vpc-25ce125d). Below the table, a message says 'Select a security group above'. At the bottom, there are 'Feedback' and 'English (US)' buttons, along with standard Windows taskbar icons.

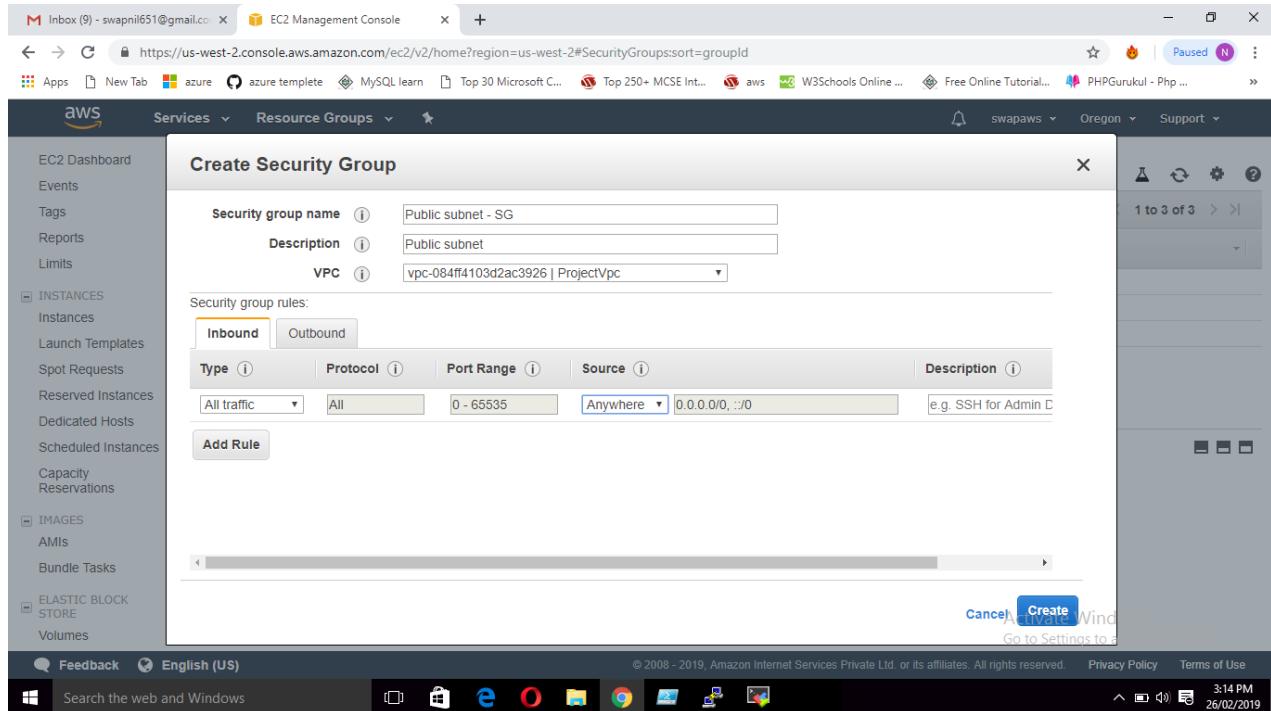
iii. In Security group name enter Webserver-SG and provide a description.



1. Choose your VPC from the list.
2. On the Inbound tab, add the rules as follows:
  3. Click Add Rule, and then choose SSH from the Type list. Under Source, select Custom and in the text box enter the public IP address range that you decided on in step
  4. Click Add Rule, and then choose HTTP from the Type list.
  5. Click Add Rule, and then choose ICMP4 Rule from the Type list. Under source select Anywhere

#### iv. Create security group for Jump and NAT instance

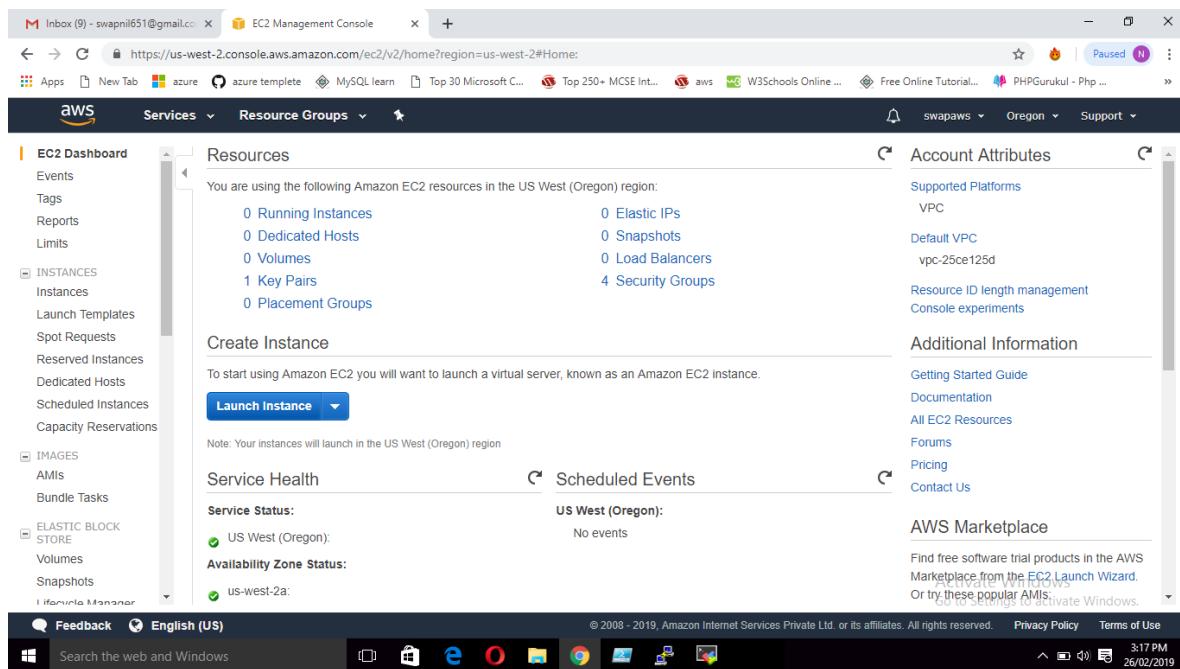
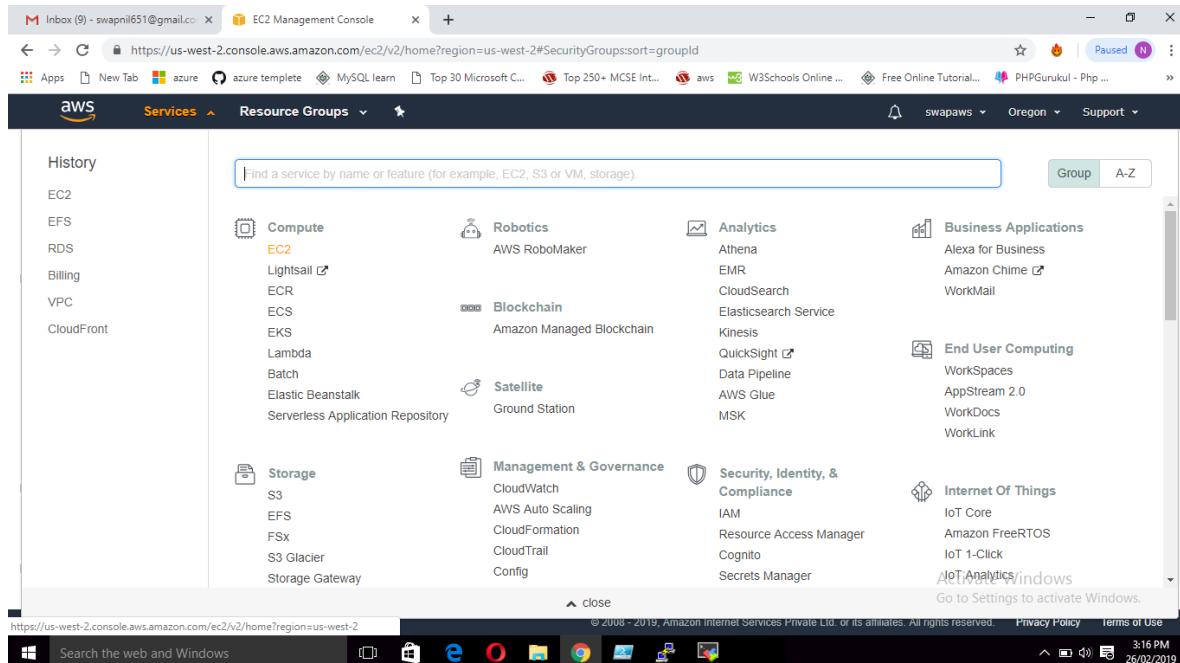
1. In Security group name enter Public-SG and provide a description



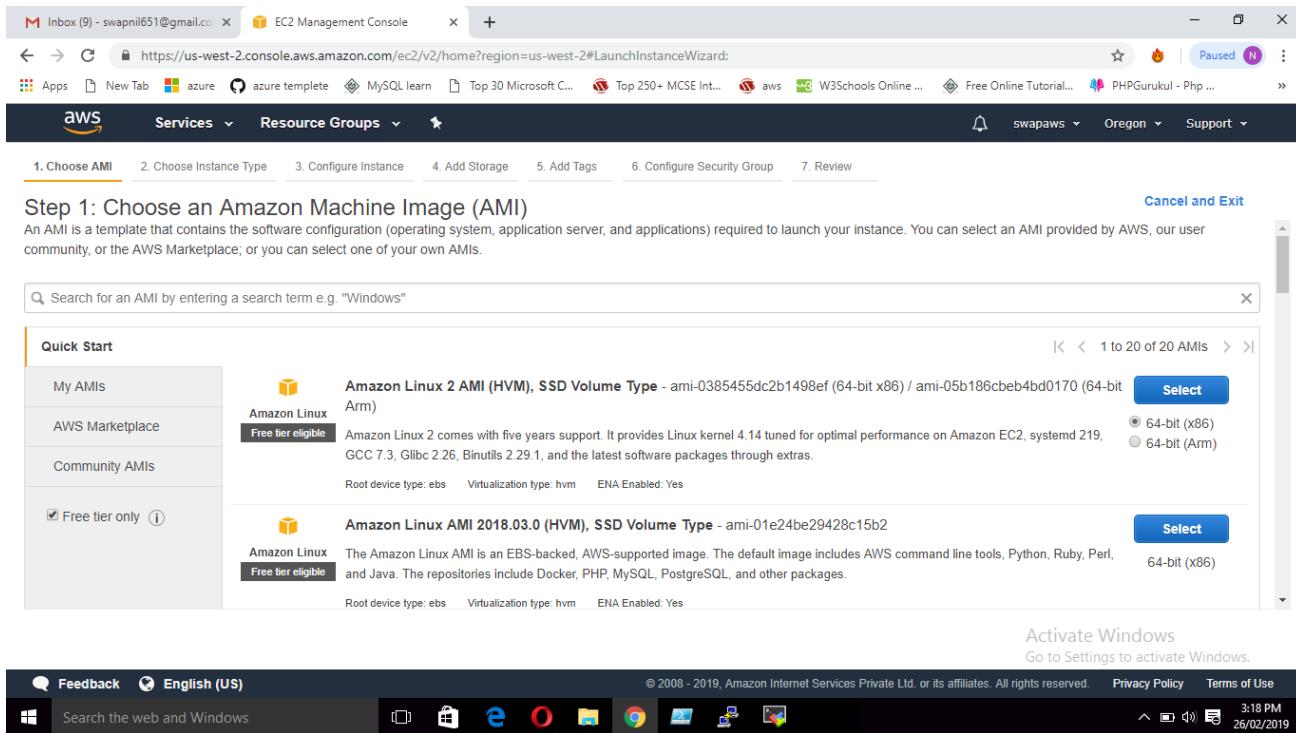
2. Choose your VPC from the list.
3. On the inbound tab, add the rule
4. Click add rule, and then choose all traffic from the type list and under source select anywhere

## 5) Launch Instances

- i. Open Amazon EC2 console, choose Instances, and then click Launch Instance.



- ii. On the Choose an Amazon Machine Image page, select free tier only, and then select an Amazon Linux AMI.



- iii. On the choose an instance type page, the t2.micro instance is selected by default. Keep this instance type to stay within the free tier.
- iv. Click next: configure instance details.
- v. On the configure instance details page, do the following:
1. T2 instances must be launched into a subnet. From network choose your VPC, and from subnet choose one of your public or private subnets.

Inbox (9) - swapnil651@gmail.com EC2 Management Console

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

Paused

swapaws Oregon Support

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-25ce125d | default (default)  
Subnet: vpc-084ff4103d2ac3926 | ProjectVpc  
Auto-assign Public IP: Use subnet setting (Enable)

Placement group: Add instance to placement group

Capacity Reservation: Open Create new Capacity Reservation

IAM role: None Create new IAM role

Cancel Previous Review and Launch Next: Add Storage Go to Settings to activate Windows.

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Inbox (9) - swapnil651@gmail.com EC2 Management Console

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

Paused

swapaws Oregon Support

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-084ff4103d2ac3926 | ProjectVpc  
Subnet: subnet-0841c129808f3eeef1 | Public | us-west-2c  
subnet-0841c129808f3eeef1 | Public | us-west-2c  
subnet-0570ccb48933fc121e | Web1 | us-west-2a  
subnet-05bcac059796fe707 | Web2 | us-west-2b

Auto-assign Public IP: Subnet

Placement group: Add instance to placement group

Capacity Reservation: Open Create new Capacity Reservation

IAM role: None Create new IAM role

Cancel Previous Review and Launch Next: Add Storage Go to Settings to activate Windows.

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Search the web and Windows 3:19 PM 26/02/2019

2. For auto-assign public IP, ensure that enable is selected from the list. Otherwise, your instance will not get a public IP address or a public DNS name.

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

Purchasing option: Request Spot instances

Network: vpc-084ff4103d2ac3926 | ProjectVpc

Subnet: subnet-0841c129808f3eeef1 | Public | us-west-2c   
250 IP Addresses available

Auto-assign Public IP:

Placement group:

Capacity Reservation: Open

IAM role: None

Buttons: Cancel, Previous, **Review and Launch**, Next: Add Storage, Go to Settings to activate Windows.

3. Click Review and Launch. If you are prompted to specify the type of root volume, make your selection and then click next.

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	Encrypted
Root	/dev/xvda	snap-0af9c0b1d247238d6	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.

Buttons: Cancel, Previous, **Review and Launch**, Next: Add Tags, Go to Settings to activate Windows.

#### 4. On the Review Instance Launch page, click Edit security groups.

##### vi. On the Configure Security Group page:

1. Select an existing security group.

2. Select the WebserverSG security group that you created.

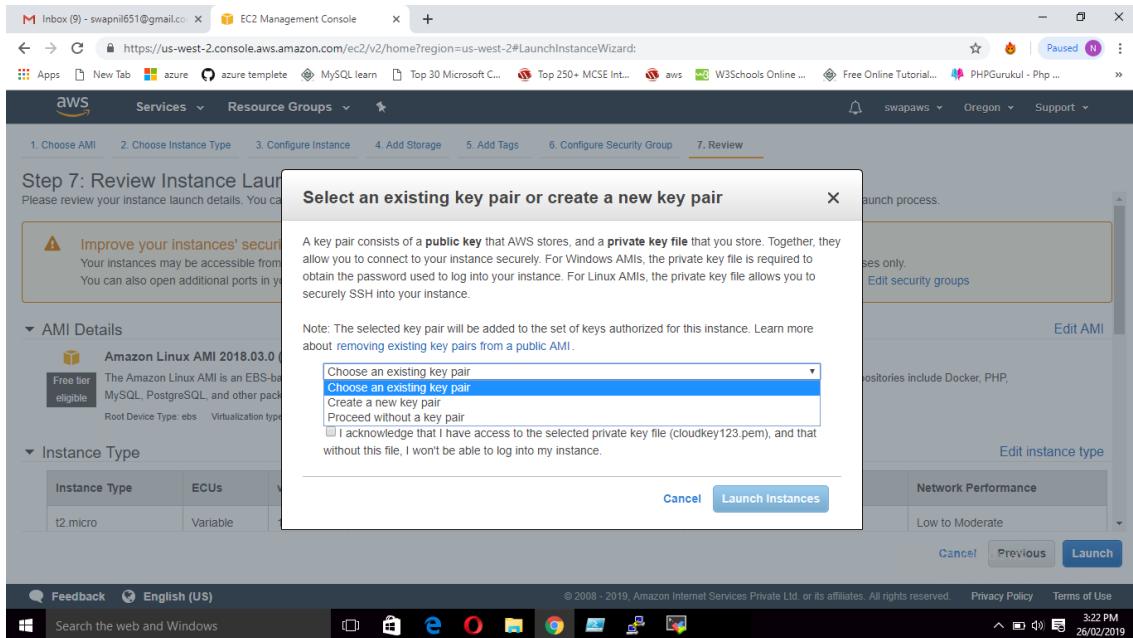
The screenshot shows the AWS EC2 Management Console with the URL <https://us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#LaunchInstanceWizard:6>. The page title is "Step 6: Configure Security Group". A sub-header says "Assign a security group:  Create a new security group  Select an existing security group". Below is a table with columns: Security Group ID, Name, Description, and Actions. Three rows are listed: default (VPC security group), Public subnet - SG, and Webserver-SG. A note at the bottom says "Select a security group above to view its inbound rules." At the top, there are tabs: 1. Choose AMI, 2. Choose Instance Type, 3. Configure Instance, 4. Add Storage, 5. Add Tags, 6. Configure Security Group (highlighted), 7. Review. At the bottom right, there are "Cancel", "Previous", "Review and Launch" buttons, and a link "Go to Settings to activate Windows".

##### vii. Click review and launch.

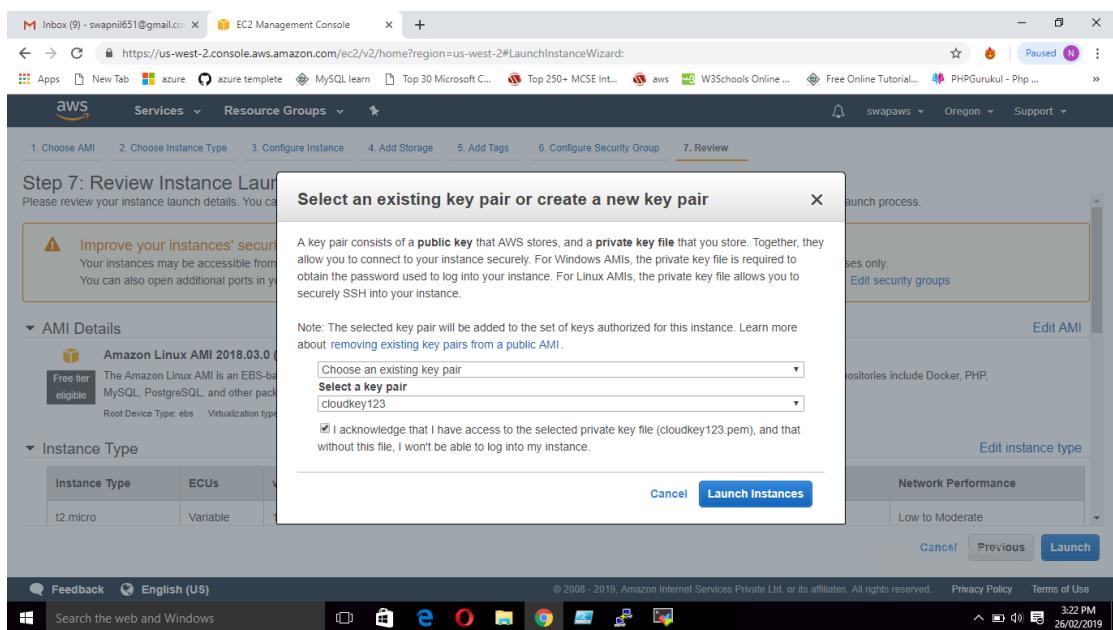
The screenshot shows the AWS EC2 Management Console with the URL <https://us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#LaunchInstanceWizard:7>. The page title is "Step 7: Review Instance Launch". A sub-header says "Please review your instance launch details. You can go back to edit changes for each section. Click Launch to assign a key pair to your instance and complete the launch process." A yellow warning box contains: "⚠ Improve your instances' security. Your security group, Webserver-SG, 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](#)". Below are sections for "AMI Details" (Amazon Linux AMI 2018.03.0 (HVM), SSD Volume Type - ami-01e24be29428c15b2) and "Instance Type" (t2.micro). At the bottom right, there are "Active", "Cancel", "Previous", "Launch" buttons, and a link "Go to Settings to activate Windows".

viii. On the review instance launch page, click Launch.

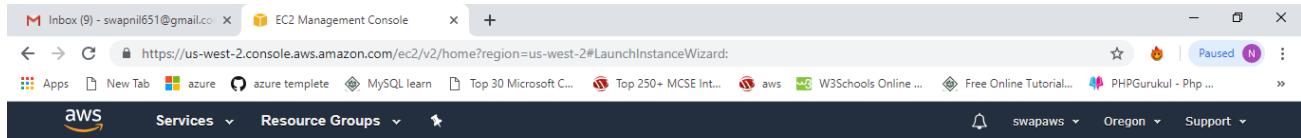
ix. In the Select an existing key pair or create a new key pair dialog box, select Choose an existing key pair, and then select the key pair you created in AWS.



x. Click the acknowledgement check box, and then click Launch Instances.



xi. In the left-hand navigation bar, choose Instances to see the status of your instance. Initially, the status of your instance is pending. After the status changes to running, your instance is ready for use.



## Launch Status

[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)

[Create and attach additional EBS volumes](#) (Additional charges may apply)

[Manage security groups](#)

Activate Windows [View Instances](#)  
Go to Settings to activate Windows.



## 6) Configure web server 1 and web server 2

- a. Take remote of jump server and access each webserver
- b. Run following commands
  - i. sudo su
  - ii. yum install httpd -y
  - iii. service httpd restart
  - iv. chkconfig httpd on
  - v. for insert.php and index.php
  - vi. go to vi /etc/httpd/conf/httpd.conf
  - vii. search for index.html
  - viii. go to insert mode and add index.php
  - ix. for webpage
  - x. vi /var/www/html/index.php
  - xi. write code for website including insert file connection for insert.php page
  - xii. go to vi /var/www/html/insert.php
  - xiii. write code including database connection and properties

## 7) Configure Jump Server

- a. yum install php
- b. yum install mysql
- c. yum install php-mysqli

## 8) Launch NAT instance

### a. Select image from community ami's 0541ea7d

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.

Quick Start (0)  
My AMIs (0)  
AWS Marketplace (0)  
Community AMIs (1)

Operating system

Amazon Linux  
Cent OS  
Debian

Select

Cancel and Exit

Activate Windows  
Go to Settings to activate Windows.

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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 (127 characters maximum) | Value (255 characters maximum) | Instances | Volumes |  
Name | Nat-Instance |

Add another tag (Up to 50 tags maximum)

Cancel Previous Review and Launch Next: Configure Security Group Go to Settings to activate Windows.

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## b. After launching

### i. Go to action

### ii. Networking

The screenshot shows the AWS EC2 Management Console. On the left, the navigation pane is visible with sections like EC2 Dashboard, Events, Tags, Reports, Limits, INSTANCES (selected), Instances, Launch Templates, Spot Requests, Reserved Instances, Dedicated Hosts, Scheduled Instances, Capacity Reservations, IMAGES, AMIs, Bundle Tasks, and ELASTIC BLOCK STORE. In the center, a table lists instances. One instance, 'Nat-Instance' (i-04e662f59cafb7be1), is selected and shown in more detail below the table. A context menu is open over this instance, with 'Networking' highlighted. The menu options include Connect, Get Windows Password, Create Template From Instance, Launch More Like This, Instance State, Instance Settings, Image, Networking (which is highlighted in orange), CloudWatch Monitoring, Change Security Groups, Attach Network Interface, Detach Network Interface, Disassociate Elastic IP Address, Change Source/Dest. Check (which is highlighted in yellow), and Manage IP Addresses.

### iii. Source destination check

### iv. Click on disable

The screenshot shows the same AWS EC2 Management Console interface as the previous one. A modal dialog box titled 'Enable Source/Destination Check' is displayed in the center. The dialog asks, 'Are you sure that you would like to disable Source/Destination Check for the instance with the following details?' Below the question, it lists the instance details: Instance: i-04e662f59cafb7be1 (Nat-Instance), Network Interface: eni-042bb299532089833, and Status: Enabled. At the bottom right of the dialog are 'Cancel' and 'Yes, Disable' buttons. The background table and sidebar remain the same as in the previous screenshot.

## 9) Create Load Balancer

- Go to EC2 services
- Click on load balancer

The screenshot shows the AWS EC2 Management Console dashboard. On the left, a navigation sidebar lists various services: Snapshots, Lifecycle Manager, NETWORK & SECURITY (Security Groups, Elastic IPs, Placement Groups, Key Pairs, Network Interfaces), LOAD BALANCING (Load Balancers, Target Groups), AUTO SCALING (Launch Configurations, Auto Scaling Groups), and SYSTEMS MANAGER SERVICES (Run Command, State Manager, Configuration, Compliance). The 'LOAD BALANCING' section is currently selected. The main content area displays 'Resources' statistics: 4 Running Instances, 0 Dedicated Hosts, 4 Volumes, 1 Key Pairs, 0 Placement Groups, 0 Elastic IPs, 0 Snapshots, 0 Load Balancers, and 4 Security Groups. Below this is a 'Create Instance' section with a 'Launch Instance' button. To the right, there are sections for 'Account Attributes' (Supported Platforms: VPC, Default VPC: vpc-25ce125d), 'Additional Information' (Getting Started Guide, Documentation, All EC2 Resources, Forums, Pricing, Contact Us), and 'AWS Marketplace' (Find free software trial products in the AWS Marketplace from the EC2 Launch Wizard, Or try these popular AMIs, Go to settings to activate Windows). At the bottom, a status bar shows the URL https://us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#LoadBalancers, the date 26/02/2019, and the time 3:43 PM.

- Create load balancer

The screenshot shows the 'Create Load Balancer' page within the AWS EC2 Management Console. The left sidebar remains the same as the previous screenshot. The main area features a 'Create Load Balancer' button at the top. Below it is a search bar with the placeholder 'Filter by tags and attributes or search by keyword'. A table header row includes columns for Name, DNS name, State, VPC ID, and Availability Zones. A message below the table states 'You do not have any load balancers in this region.' At the bottom, there is a 'Select a load balancer' section with three small icons. A status bar at the bottom indicates the URL https://us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#LoadBalancers:sort=loadBalancerName, the date 26/02/2019, and the time 3:43 PM.

## d. Select application load balancer and Create

The screenshot shows the 'Select load balancer type' step of the 'Create Load Balancer' wizard. It compares three types:

- Application Load Balancer**: Handles HTTP and HTTPS traffic. Description: Choose an Application Load Balancer when you need a flexible feature set for your web applications with HTTP and HTTPS traffic. Operating at the request level, Application Load Balancers provide advanced routing and visibility features targeted at application architectures, including microservices and containers.
- Network Load Balancer**: Handles TCP and TLS traffic. Description: Choose a Network Load Balancer when you need ultra-high performance, the ability to terminate TLS connections at scale, centralize certificate deployment, and static IP addresses for your application. Operating at the connection level, Network Load Balancers are capable of handling millions of requests per second securely while maintaining ultra-low latencies.
- Classic Load Balancer**: Previous generation for HTTP, HTTPS, and TCP. Description: Choose a Classic Load Balancer when you have an existing application running in the EC2-Classic network.

At the bottom right, there are 'Activate Windows' and 'Cancel' buttons, along with a link to 'Go to Settings to activate Windows.'

## e. Name = any name [project load balancer]

The screenshot shows the 'Step 1: Configure Load Balancer' page of the 'Configure Load Balancer' wizard. The steps are:

1. Configure Load Balancer
2. Configure Security Settings
3. Configure Security Groups
4. Configure Routing
5. Register Targets
6. Review

**Basic Configuration**

To configure your load balancer, provide a name, select a scheme, specify one or more listeners, and select a network. The default configuration is an Internet-facing load balancer in the selected network with a listener that receives HTTP traffic on port 80.

**Name:** Project LB

**Scheme:** internet-facing

**IP address type:** ipv4

**Listeners**

A listener is a process that checks for connection requests, using the protocol and port that you configured.

Load Balancer Protocol	Load Balancer Port
HTTP	80

**Next: Configure Security Settings**

Cancel Go to Settings to activate Windows.

At the bottom, there is a standard Windows taskbar with icons for File Explorer, Edge, and other system tools.

## f. Select VPC and select availability zones

Step 1: Configure Load Balancer Availability Zones

Specify the Availability Zones to enable for your load balancer. The load balancer routes traffic to the targets in these Availability Zones only. You can specify only one subnet per Availability Zone. You must specify subnets from at least two Availability Zones to increase the availability of your load balancer.

VPC	Availability Zone	Subnet ID	Subnet IPv4 CIDR	Name
vpc-084ff4103d2ac3926 (192.168.0.0/16)   ProjectVpc	us-west-2a	subnet-0570cb48933fc121e	192.168.90.0/24	Web1
	us-west-2b	subnet-05bcac059796fe707	192.168.91.0/24	Web2
	us-west-2c	subnet-0841c129808f3eeef1	192.168.100.0/24	Public

You are creating an internet-facing Load Balancer, but there is no Internet Gateway attached to these subnets you have selected: subnet-0570cb48933fc121e, subnet-05bcac059796fe707

Tags

Cancel Next: Configure Security Settings  
Go to Settings to activate Windows.

## g. Click on next

## h. Select security group

Step 3: Configure Security Groups

A security group is a set of firewall rules that control the traffic to your load balancer. On this page, you can add rules to allow specific traffic to reach your load balancer. First, decide whether to create a new security group or select an existing one.

Assign a security group:

- Create a new security group
- Select an existing security group

Security Group ID	Name	Description	Actions
sg-0711e4bfa0b31f49c	default	default VPC security group	Copy to new
sg-0c2a4c5df000000000000000000000000	Public subnet - SG	Public subnet	Copy to new
sg-0756217492c80f572	Webserver-SG	Web1 & Web2	Copy to new

Cancel Previous Next: Configure Routing  
Go to Settings to activate Windows.

The screenshot shows a browser window with two tabs: 'Inbox (9) - swapnil651@gmail.com' and 'EC2 Management Console'. The 'EC2 Management Console' tab is active, displaying the 'Create ELB Wizard' with the step '4. Configure Routing' highlighted. The 'Target group' section is visible, showing a dropdown for 'Name' set to 'Project-Target', 'Protocol' set to 'HTTP', and 'Port' set to '80'. Below this, the 'Health checks' section shows a dropdown for 'Protocol' also set to 'HTTP'. At the bottom right of the wizard, there are buttons for 'Cancel', 'Previous Step', 'Next Step: Register Targets', and 'Go to Settings to activate Windows.'

## i. Target group

- i. Name = any name [project target]
- ii. Register targets

1. Select web1 and web2

**Instances**

To register additional instances, select one or more running instances, specify a port, and then click Add. The default port is the port specified for the target group. If the instance is already registered on the specified port, you must specify a different port.

Instance	Name	State	Security groups	Zone	Subnet ID	Subnet CIDR
i-0fa02635c93973f7c	Web1	running	Webserver-SG	us-west-2c	subnet-0841c129808f3eef1	192.168.100.0/24
i-0e6ec8a431b522...	Web2	running	Webserver-SG	us-west-2b	subnet-05bcac059796fe707	192.168.91.0/24
i-07387f8aa35f0762b	Jump	running	Public subnet - SG	us-west-2c	subnet-0841c129808f3eef1	192.168.100.0/24
i-0979d6baedd262...	Nat-Instance	running	Public subnet - SG	us-west-2c	subnet-0841c129808f3eef1	192.168.100.0/24

**Add to registered** on port 80

Search Instances

Cancel Previous Next: Review Go to Settings to activate Windows.

**Registered targets**

To deregister instances, select one or more registered instances and then click Remove.

Instance	Name	Port	State	Security groups	Zone
i-0fa02635c93973f7c	Web1	80	running	Webserver-SG	us-west-2c
i-0e6ec8a431b522dec	Web2	80	running	Webserver-SG	us-west-2b

**Instances**

To register additional instances, select one or more running instances, specify a port, and then click Add. The default port is the port specified for the target group. If the instance is already registered on the specified port, you must specify a different port.

**Add to registered** on port 80

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## j. Review and create

Inbox (9) - swapnil651@gmail.co EC2 Management Console

https://us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#V2CreateELBWizard?type=application:

Paused N

Apps New Tab azure azure template MySQL learn Top 30 Microsoft C... Top 250+ MCSE Int... aws W3Schools Online ... Free Online Tutorial... PHPGurukul - Php ...

AWS Services Resource Groups

1. Configure Load Balancer 2. Configure Security Settings 3. Configure Security Groups 4. Configure Routing 5. Register Targets 6. Review

**Step 6: Review**

**Routing**

Target group New target group  
Target group name Project-Target  
Port 80  
Target type instance  
Protocol HTTP  
Health check protocol HTTP  
Path /  
Health check port traffic port  
Healthy threshold 5  
Unhealthy threshold 2  
Timeout 5  
Interval 30  
Success codes 200

**Targets**

Instances i-0fa02635c93973f7c (Web1):80, i-0e6ec8a431b522dec (Web2):80

Active Change Previous Create Go to Settings to activate Windows.

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Inbox (9) - swapnil651@gmail.co EC2 Management Console

https://us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#LoadBalancers:sort=loadBalancerName

Paused N

Apps New Tab azure azure template MySQL learn Top 30 Microsoft C... Top 250+ MCSE Int... aws W3Schools Online ... Free Online Tutorial... PHPGurukul - Php ...

AWS Services Resource Groups

Create Load Balancer Actions

Filter by tags and attributes or search by keyword

Name	DNS name	State	VPC ID	Availability Zones
Project-LB	Project-LB-1396851046.us-west-2.elb.amazonaws.com	provisioning	vpc-084ff4103d2ac3926	us-west-2a, us-west-2b

Load balancer: Project-LB

Description Listeners Monitoring Integrated services Tags

**Basic Configuration**

Name	Project-LB	Creation time	February 26, 2019 at 3:47:14 PM UTC+5:30
ARN	arn:aws:elasticloadbalancing:us-west-2:882408123207:loadbalancer/app/Project-LB/d2b0f0f4f7bd9fd6	Hosted zone	Z1H1FL5HABSF5
		State	provisioning

Activate Windows Go to Settings to activate Windows.

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## 10) Configure Auto-scale

### i. Create Launch configuration

Name: Project Auto-scale

Purchasing option: Request Spot Instances

IAM role: None

Monitoring: Enable CloudWatch detailed monitoring

Later, if you want to use a different launch configuration, you can create a new one and apply it to any Auto Scaling group. Existing launch configurations cannot be edited.

### ii. Select security group

Assign a security group:

- Create a new security group (radio button)
- Select an existing security group (radio button)

Security Group ID	Name	VPC ID	Description	Actions
sg-03f9545649bc78e78	default	vpc-06b9fb78d0040e0c	default VPC security group	Copy to new
sg-6fa27c19	default	vpc-25ce125d	default VPC security group	Copy to new
sg-0b4247ae93bf38034	Public subnet-SG	vpc-06b9fb78d0040e0c	nat jump	Copy to new
sg-0a4f9c5ac0856c9b8	rds-launch-wizard	vpc-06b9fb78d0040e0c	Created from the RDS Management Console: 2019/03/01 06:11:46	Copy to new
sg-0d4ad73c64a659778	Webserver-SG	vpc-06b9fb78d0040e0c	web & web 2	Copy to new

Inbound rules for sg-0d4ad73c64a659778 Selected security groups: sg-0d4ad73c64a659778

Type	Protocol	Port Range	Source
HTTP	TCP	80	0.0.0.0/0
SSH	TCP	22	0.0.0.0/0

### iii. Review and launch

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

Create Launch Configuration

**⚠ Improve security of instances launched using your launch configuration, Project Auto-scale. Your security group, Webserver-SG, 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

Auto-scale - ami-0974d06fc30f82866	Auto-scale	Root device type: ebs	Virtualization Type: hvm	Edit AMI
------------------------------------	------------	-----------------------	--------------------------	----------

Instance Type

Instance Type	ECUs	vCPUs	Memory GiB	Instance Storage (GiB) GiB	EBS-Optimized Available	Network Performance
t2.micro	Variable	1	1	EBS only	-	Low to Moderate

Cancel Previous Create launch configuration Go to Settings to activate Windows.

### iv. Click on create auto scaling group

Launch configuration creation status

**✓ Successfully created launch configuration: Project Auto-scale**

[View creation log](#)

View

View your launch configurations  
View your Auto Scaling groups

Here are some helpful resources to get you started

Create an Auto Scaling group using this launch configuration Close

Activate Windows  
Go to Settings to activate Windows.

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## v. Select VPC and availability zone

1. Configure Auto Scaling group details    2. Configure scaling policies    3. Configure Notifications    4. Configure Tags    5. Review

Create Auto Scaling Group

Group name: Project Auto-scale group

Launch Configuration: Project Auto-scale

Group size: Start with 1 instances

Network: vpc-06b9fb78d040e0c (192.168.0.0/16) | Project

Subnet: subnet-01672a068661c98b(192.168.90.0/24) | Web 1  
subnet-075408a05a0d9ffcd(192.168.102.0/24) | private

No public IP addresses will be assigned

None of the instances in this Auto Scaling group will be assigned a public IP address because you have not chosen to launch in your default VPC and subnet.

You can ensure a public IP address is assigned to instances launched with this configuration by...

Cancel and Exit

Cancel Next: Configure scaling policies

Go to Settings to activate Windows.

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3:02 PM 01/03/2019

## vi. Increase group size

1. Configure Auto Scaling group details    2. Configure scaling policies    3. Configure Notifications    4. Configure Tags    5. Review

Create Auto Scaling Group

Increase Group Size

Name: Increase Group Size

Execute policy when: awsec2-AUTO123-CPU-Utilization

breaches the alarm threshold: CPUUtilization >= 25 for 300 seconds for the metric dimensions AutoScalingGroupName = AUTO123

Take the action: Add 1 instances when 30 <= CPUUtilization < +infinity

Add step

Instances need: 300 seconds to warm up after each step

Create a simple scaling policy

Decrease Group Size

Name: Decrease Group Size

Cancel Previous Next: Configure Notifications

Go to Settings to activate Windows.

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3:07 PM 01/03/2019

## vii. Decrease group size

The screenshot shows the 'Create Auto Scaling Group' wizard at step 2. The 'Decrease Group Size' scaling policy is being configured. The 'Name' field is set to 'Decrease Group Size'. The 'Execute policy when:' dropdown is set to 'awsec2-AUTO123-CPU-Utilization'. Below it, a note states: 'breaches the alarm threshold: CPUUtilization >= 25 for 300 seconds for the metric dimensions AutoScalingGroupName = AUTO123'. The 'Take the action:' section shows 'Remove 1 instances when 25 <= CPUUtilization < +infinity'. There are buttons for 'Add new alarm' and 'Add step'. Below the policy configuration, there are links to 'Create a simple scaling policy' and 'Scale the Auto Scaling group using a target tracking scaling policy'. At the bottom, there are 'Cancel', 'Previous', 'Review', and 'Next: Configure Notifications' buttons.

## viii. Add tag

The screenshot shows the 'Create Auto Scaling Group' wizard at step 4. A single tag is being added: 'Name' with 'Value' 'Project Auto-scale'. A checkbox for 'Tag New Instances' is checked. Below the table, there is a button 'Add tag' and a note '49 remaining'. At the bottom, there are 'Cancel', 'Previous', 'Review', and 'Next: Configure Notifications' buttons. The status bar at the bottom right shows '3:08 PM 01/03/2019'.

## ix. Create Auto scaling group

The screenshot shows the AWS Management Console interface for creating an Auto Scaling group. The top navigation bar includes tabs for 'Inbox', 'Route Tables | VPC Management', and 'EC2 Management Console'. Below the navigation bar, the AWS logo and 'Services' dropdown are visible. A breadcrumb trail at the top indicates the current step: '1. Configure Auto Scaling group details' → '2. Configure scaling policies' → '3. Configure Notifications' → '4. Configure Tags' → '5. Review'. The main content area is titled 'Create Auto Scaling Group' and displays the configuration for the 'Project Auto-scale group'. The 'Auto Scaling Group Details' section includes fields for Group name (Project Auto-scale group), Group size (1), Minimum Group Size (1), Maximum Group Size (3), Subnet(s) (subnet-01672a068661c98b, subnet-075408a05a0d9ffcf), Health Check Grace Period (300), Detailed Monitoring (No), Instance Protection (None), and Service-Linked Role (AWSServiceRoleForAutoScaling). The 'Scaling Policies' section lists two policies: 'Increase Group Size' (With alarm = awsec2-AUTO123-CPU-Utilization; Add 1 instances and 300 seconds for instances to warm up) and 'Decrease Group Size' (With alarm = awsec2-AUTO123-CPU-Utilization; Remove 1 instances). The 'Edit scaling policies' button is located in this section. At the bottom right of the main form, there are 'Cancel', 'Previous', 'Next', and 'Create Auto Scaling group' buttons. The status bar at the bottom of the screen shows the Windows taskbar with various pinned icons and system information like the date and time.

## 11) Configure Route-53

### a. Open Route53 console

The screenshot shows the AWS Management Console interface. The top navigation bar includes tabs for 'Inbox (10)', 'EC2 Management Console', and a search bar. Below the navigation bar, the 'Services' menu is open, displaying various AWS services like Database Migration Service, MediaConvert, AWS Amplify, and Route 53. The 'Route 53' service is highlighted with an orange circle. The main content area shows detailed information about Route 53, including its sub-components like VPC, CloudFront, and Global Accelerator. At the bottom of the page, there's a status bar with the URL 'https://console.aws.amazon.com/route53/home?region=us-west-2', the state 'active', and a link to 'Activate Windows'.

### b. Click on DNS management

The screenshot shows the 'Route 53 Management Console' interface. It features four main service sections: 'DNS management' (represented by a monitor icon), 'Traffic management' (represented by a network gear icon), 'Availability monitoring' (represented by a shield icon), and 'Domain registration' (represented by a globe icon). Each section has a brief description and a 'Get started now' button. At the bottom of the page, there's a footer with links to 'Route 53 documentation', 'FAQs', 'Support', and a link to 'Activate Windows'.

## a. Click on create hosted zone

Domain name	swapnilaws.tk
Comment	swapnilaws.tk
Type	Public hosted zone

Inbox (10) - swapnil651@gmail.c X Route 53 Management Console X + https://console.aws.amazon.com/route53/home?region=us-west-2#hosted-zones:

Services Resource Groups

Create Hosted Zone Go to Record Sets Delete Hosted Zone

Dashboard Hosted zones Health checks Traffic flow Traffic policies Policy records Domains Registered domains Pending requests Resolver VPCs Inbound endpoints Outbound endpoints Rules

Amazon Route 53 is an authoritative Domain Name System (DNS) service. DNS is the system that translates human-readable domain names (example.com) into IP addresses (192.0.2.0). With authoritative name servers in data centers all over the world, Route 53 is reliable, scalable, and fast.

If you already have a domain name, such as example.com, Route 53 can tell the Domain Name System (DNS) where on the Internet to find web servers, mail servers, and other resources for your domain. [Learn More](#)

Create Hosted Zone

Activate Windows Go to Settings to activate Windows

Feedback English (US)

Search the web and Windows

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Inbox (10) - swapnil651@gmail.c X Route 53 Management Console X + https://console.aws.amazon.com/route53/home?region=us-west-2#hosted-zones:

Services Resource Groups

Create Hosted Zone Go to Record Sets Delete Hosted Zone

Dashboard Hosted zones Health checks Traffic flow Traffic policies Policy records Domains Registered domains Pending requests Resolver VPCs Inbound endpoints Outbound endpoints Rules

Search all fields X All Types

No Hosted Zones to display

Domain Name	Type	Record Set Count	Comment	Hosted Zone ID
You have no hosted zones				

Create Hosted Zone

A hosted zone is a container that holds information about how you want to route traffic for a domain, such as example.com, and its subdomains.

Domain Name:

Comment:

Type:  Public Hosted Zone

A public hosted zone determines how traffic is routed on the Internet.

Create Hosted Zone

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Inbox (10) - swapnil651@gmail.com | Route 53 Management Console | https://console.aws.amazon.com/route53/home?region=us-west-2#hosted-zones:

aws Services Resource Groups

**Create Hosted Zone** Go to Record Sets Delete Hosted Zone

Search all fields All Types

No Hosted Zones to display

Domain Name Type Record Set Count Comment Hosted Zone ID

You have no hosted zones

**Create Hosted Zone**

A hosted zone is a container that holds information about how you want to route traffic for a domain, such as example.com, and its subdomains.

Domain Name: swapnilaws.tk

Comment: project

Type: Public Hosted Zone

A public hosted zone determines how traffic is routed on the Internet.

Activate Windows Create Go to Settings to activate Windows.

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Inbox (10) - swapnil651@gmail.com | Route 53 Management Console | https://console.aws.amazon.com/route53/home?region=us-west-2#resource-record-sets:Z2S1FTI35333VY

aws Services Resource Groups

Back to Hosted Zones Create Record Set Import Zone File Delete Record Set Test Record Set

Record Set Name Any Type Aliases Only Weighted Only

Displaying 1 to 2 out of 2 Record Sets

Name	Type	Value
swapnilaws.tk.	NS	ns-1115.awsdns-11.org. ns-1735.awsdns-24.co.uk. ns-976.awsdns-58.net. ns-199.awsdns-24.com.
swapnilaws.tk.	SOA	ns-1115.awsdns-11.org. awsdns-hostmaster.amazon.com.

**Edit Record Set**

Name: swapnilaws.tk.

Type: NS – Name server

Alias:  Yes  No

TTL (Seconds): 172800 1m 5m 1h 1d

Value: ns-1115.awsdns-11.org.  
ns-1735.awsdns-24.co.uk.  
ns-976.awsdns-58.net.  
The domain name of a name server.  
Enter multiple name servers on separate lines.  
Example:  
ns1.amazon.com  
ns2.amazon.org  
ns3.amazon.net  
ns4.amazon.co.uk

Save Record Set Go to Settings to activate Windows.

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- b. Open freenom or godaddy account
- c. Copy all name servers [AWS] in freenom or godaddy account

**Nameservers**

You can change where your domain points to here. Please be aware changes can take up to 24 hours to propagate.

Use default nameservers (Freenom Nameservers)

Use custom nameservers (enter below)

Nameserver 1
ns-1115.awsdns-11.org

Nameserver 2
ns-1735.awsdns-24.co.uk

Nameserver 3
ns-976.awsdns-58.net

Nameserver 4
ns-199.awsdns-24.com

Nameserver 5

Activate Windows  
Go to Settings to activate Windows.

- d. Under hosted zone click on swapnilAWS.com

Record Set Name: swapnilaws.tk

Name	Type	Value
swapnilaws.tk	NS	ns-1115.awsdns-11.org. ns-1735.awsdns-24.co.uk ns-976.awsdns-58.net ns-199.awsdns-24.com.
swapnilaws.tk	SOA	ns-1115.awsdns-11.org. awsdns-hostmaster.amazon.

To get started, click Create Record Set button or click an existing record set.

Activate Windows  
Go to Settings to activate Windows.

## e. Create record set

Name	Org.swapnilAWS.tk
Type	IPv4
Alias	Yes
Target	Load-balancer

The screenshot shows the AWS Route 53 Management Console. On the left, there's a sidebar with various service links. The main area has tabs for 'Create Record Set', 'Import Zone File', 'Delete Record Set', and 'Test Record Set'. A search bar at the top says 'Record Set Name: org.swapnilaws.tk'. Below it, a table lists existing records: 'swapnilaws.tk.' (NS type) and 'swapnilaws.tk.' (SOA type). To the right, a modal window titled 'Create Record Set' is open. It has fields for 'Name' (set to 'org.swapnilaws.tk'), 'Type' (set to 'A - IPv4 address'), and 'Alias' (radio button selected 'Yes'). Under 'Alias Target', a dropdown menu lists several options: 'CloudFront distributions', 'Elastic Beanstalk', 'ELB load balancers', '2 elb.amazonaws.com', 'S3 website endpoints', 'Resource record sets', 'VPC endpoint', 'API Gateway', and 'No Targets Available'. At the bottom of the modal, there's a 'Create' button.

## f. Create alias record

Name	<a href="http://www.swapnilAWS.tk">www.swapnilAWS.tk</a>
Type	CNAME
Alias	No
Value	Org.swapnilAWS.tk

Inbox (10) - swapnil651@gmail.com Route 53 Management Console

https://console.aws.amazon.com/route53/home?region=us-west-2#resource-record-sets:Z2S1FTI3S333VY

Services Resource Groups

Hosted zones

Record Set Name: swapnilaws.tk

Name	Type	Value
swapnilaws.tk.	NS	ns-1115.awsdns-11.org. ns-1735.awsdns-24.co.uk. ns-976.awsdns-58.net. ns-199.awsdns-24.com.
swapnilaws.tk.	SOA	ns-1115.awsdns-11.org. awsdns-hostmaster.amazon.com. 1 14400 3600 1209600 86400
org.swapnilaws.tk.	A	ALIAS dualstack.project-lb-1396851046.us-west-2.eb.amazonaws.com.

To get started, click Create Record Set button or click an existing record set.

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Search the web and Windows

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Inbox (10) - swapnil651@gmail.com Route 53 Management Console

https://console.aws.amazon.com/route53/home?region=us-west-2#resource-record-sets:Z2S1FTI3S333VY

Services Resource Groups

Hosted zones

Record Set Name: www.swapnilaws.tk

Name	Type	Value
swapnilaws.tk.	NS	ns-1115.awsdns-11.org. ns-1735.awsdns-24.co.uk. ns-976.awsdns-58.net. ns-199.awsdns-24.com.
swapnilaws.tk.	SOA	ns-1115.awsdns-11.org. awsdns-hostmaster.amazon.com. 1 14400 3600 1209600 86400
org.swapnilaws.tk.	A	ALIAS dualstack.project-lb-1396851046.us-west-2.eb.amazonaws.com.

Create Record Set

Name: www.swapnilaws.tk.

Type: A – IPv4 address

Alias: CNAME – Canonical name

TTL (s): 3600

Value: MX – Mail exchange  
AAAA – IPv6 address  
TXT – Text  
PTR – Pointer  
SRV – Service locator  
SPF – Sender Policy Framework  
NAPTR – Name Authority Pointer  
CAA – Certification Authority Authorization  
NS – Name server  
SOA – Start of authority

Routing Policy: Simple

Route 53 responds to queries based only on the values in this record. Learn More

Activate Windows Go to Settings to activate Windows

Feedback English (US)

Search the web and Windows

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The screenshot shows the AWS Route 53 Management Console. On the left, a sidebar lists various services: Dashboard, Hosted zones (selected), Health checks, Traffic flow, Traffic policies, Policy records, Domains, Registered domains, Pending requests, Resolver, VPCs, Inbound endpoints, Outbound endpoints, and Rules. The main area displays a table of record sets for the domain swapnilaws.tk. The table has columns for Name, Type, and Value. One entry is selected, showing an NS record type with values ns-1115.awsdns-11.org., ns-1735.awsdns-24.co.uk., ns-976.awsdns-58.net., and ns-199.awsdns-24.com. Another entry shows an SOA record type with values ns-1115.awsdns-11.org. awsdns-hostmaster.amazon.com. The third entry is an alias record for org.swapnilaws.tk pointing to dualstack.project-lb-1396851046.us-west-2.e. The right side of the screen shows a 'Create Record Set' dialog. The 'Name' field is set to www.swapnilaws.tk, and the 'Type' is set to CNAME - Canonical name. The 'Value' field contains org.swapnilaws.tk. A note explains that this value will resolve to instead of the name in the Name field. The 'Routing Policy' is set to Simple. At the bottom right of the dialog, there is an 'Activate Windows' button.

This screenshot is nearly identical to the one above, showing the AWS Route 53 Management Console. The sidebar and record set table are the same. The right side of the screen now shows a message: 'To get started, click Create Record Set button or click an existing record set.' Below this message is an 'Activate Windows' button with the text 'Go to Settings to activate Windows.' The bottom navigation bar includes links for Feedback, English (US), Privacy Policy, Terms of Use, and a date/time stamp of 4:26 PM 26/02/2019.

g. Verify website with [www.swapnilAWS.tk](http://www.swapnilAWS.tk)