

In this Hands- on will learn how to create instance using Cloudformation with our own VPC

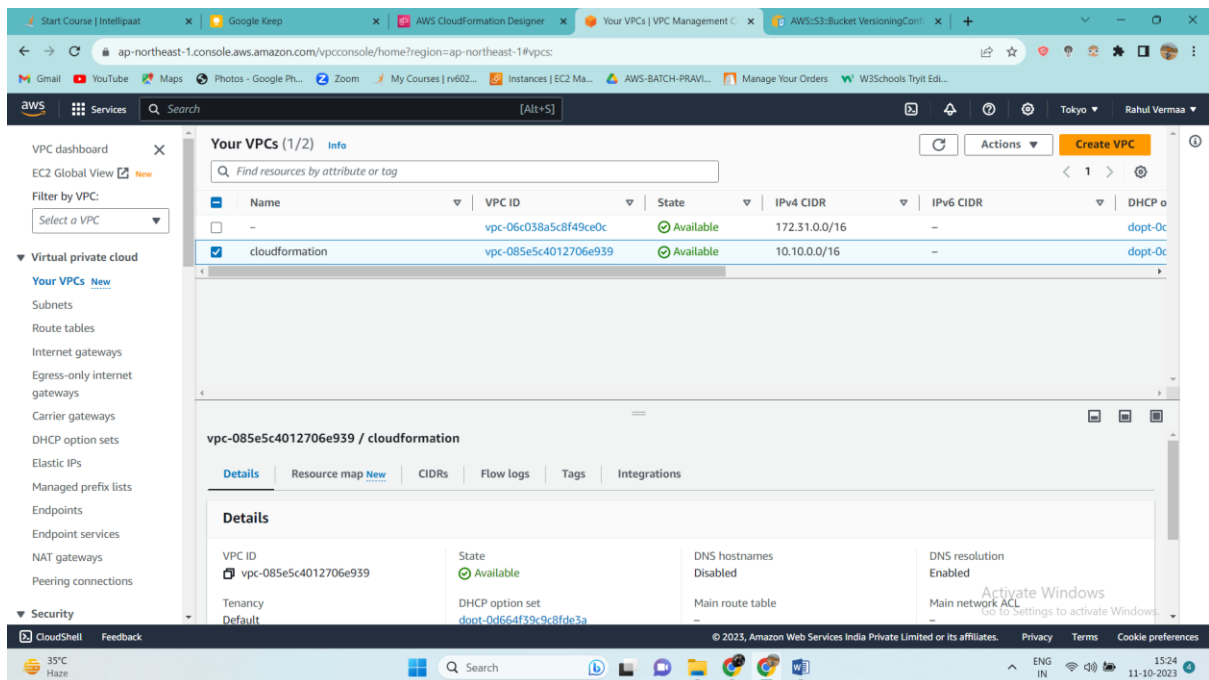
Problem Statement:

Problem Statement: You work for XYZ Corporation. Your team is asked to deploy similar architecture multiple times for testing, development, and production purposes. Implement CloudFormation for the tasks assigned to you below.

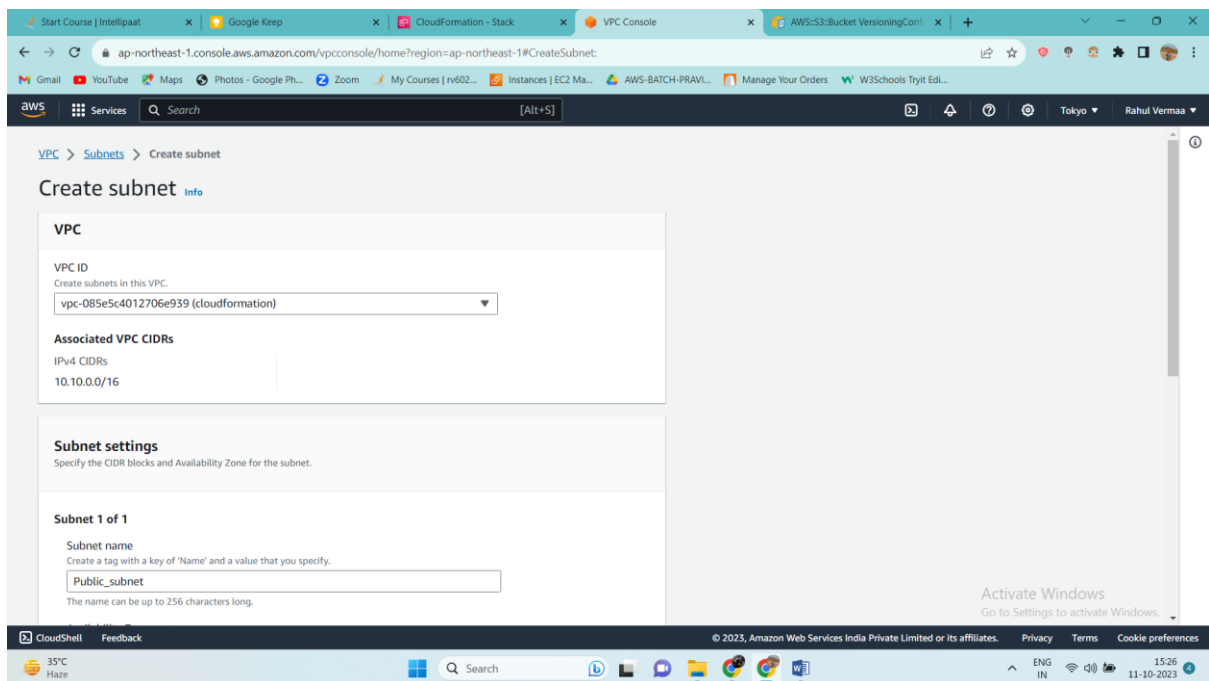
Tasks To Be Performed:

1. Create a template with 1 VPC and 1 public subnet.
2. Launch an Amazon Linux EC2 instance in the public subnet and tag the instance as "CFinstance"

First let's create our own VPC



And now we will create one public subnet



Now let us create one route table also and associate our subnet.

The screenshot shows the 'Create route table' page in the AWS VPC console. The page title is 'Create route table' with an 'info' icon. Below the title is a description: 'A route table specifies how packets are forwarded between the subnets within your VPC, the internet, and your VPN connection.' The 'Route table settings' section includes a 'Name - optional' field with the value 'public_subnet_route' and a 'VPC' dropdown menu showing 'vpc-085e5c4012706e939 (cloudformation)'. The 'Tags' section shows a table with one tag: 'Name' as the key and 'public_subnet_route' as the value. At the bottom right of the form is a green 'Create route table' button. The page also features a sidebar with navigation links and a top navigation bar with the AWS logo and user information.

Create route table [info](#)

A route table specifies how packets are forwarded between the subnets within your VPC, the internet, and your VPN connection.

Route table settings

Name - optional
Create a tag with a key of 'Name' and a value that you specify.

public_subnet_route

VPC
The VPC to use for this route table.

vpc-085e5c4012706e939 (cloudformation)

Tags
A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

Key	Value - optional	
Name	public_subnet_route	Remove

Add new tag
You can add 49 more tags.

Cancel **Create route table**

Activate Windows
Go to Settings to activate Windows.

We will attach one internet gateway which we have created now

The screenshot shows the 'Internet gateways' page in the AWS VPC console. A green notification banner at the top states: 'The following internet gateway was created: igw-0ad4a9236c68caca - my_cloudformation_IG. You can now attach to a VPC to enable the VPC to communicate with the internet.' The page title is 'igw-0ad4a9236c68caca / my_cloudformation_IG'. The 'Details' section shows a table with the following information: 'Internet gateway ID' is 'igw-0ad4a9236c68caca', 'State' is 'Detached', 'VPC ID' is '-', and 'Owner' is '219449977354'. The 'Tags' section shows a table with one tag: 'Name' as the key and 'my_cloudformation_IG' as the value. At the bottom right of the form is a green 'Attach to a VPC' button. The page also features a sidebar with navigation links and a top navigation bar with the AWS logo and user information.

The following internet gateway was created: igw-0ad4a9236c68caca - my_cloudformation_IG. You can now attach to a VPC to enable the VPC to communicate with the internet. [Attach to a VPC](#)

igw-0ad4a9236c68caca / my_cloudformation_IG [Actions](#)

Details [info](#)

Internet gateway ID	State	VPC ID	Owner
igw-0ad4a9236c68caca	Detached	-	219449977354

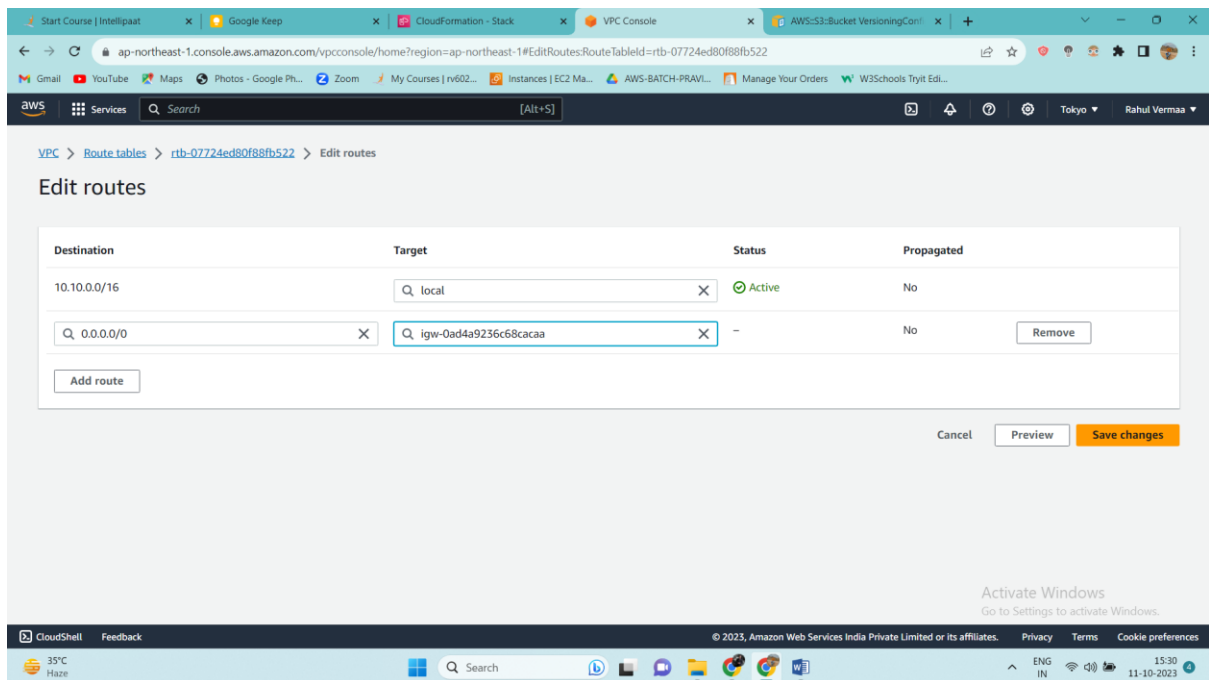
Tags

Key	Value
Name	my_cloudformation_IG

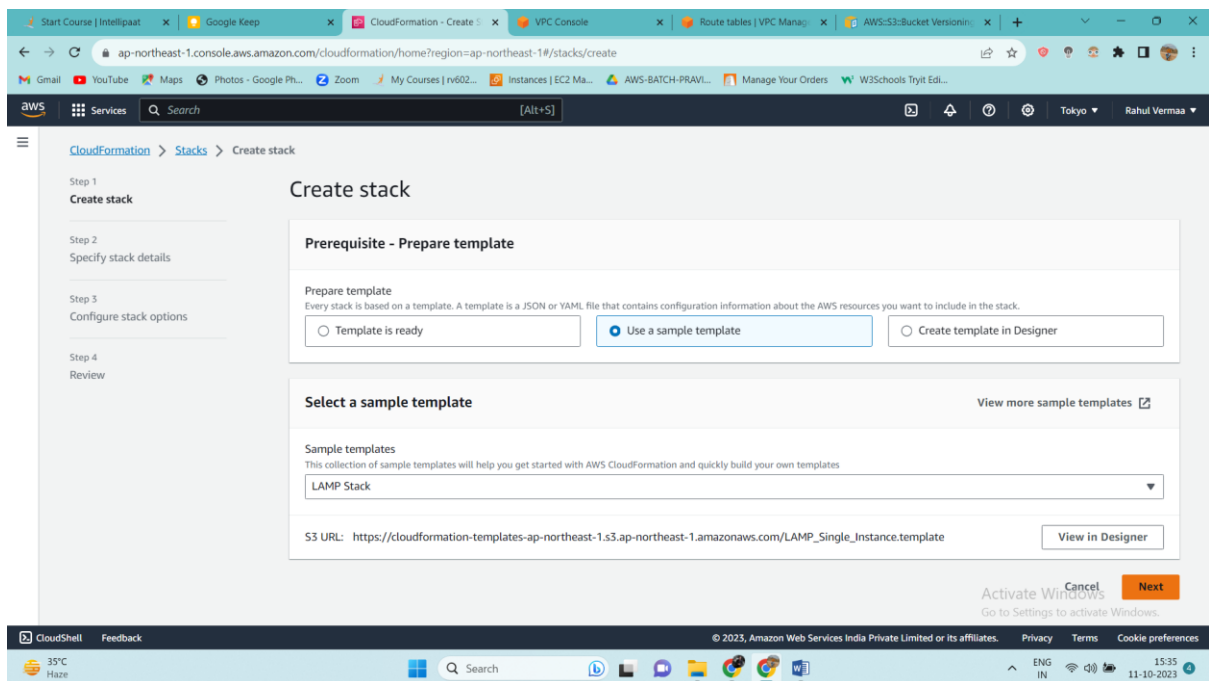
[Manage tags](#)

Activate Windows
Go to Settings to activate Windows.

Now we will route our route table to internet gateway



Afterwards will create one stack



Our stack is created now

The screenshot shows the AWS CloudFormation console. On the left, the 'Stacks' list shows 'CFInstance' with a status of 'CREATE_IN_PROGRESS'. The main panel displays the 'Events' tab for the 'CFInstance' stack, showing a list of events with their timestamps, logical IDs, and statuses.

Timestamp	Logical ID	Status	Status reason
2023-10-11 15:39:05 UTC+0530	WebServerInstance	CREATE_IN_PROGRESS	Resource creation Initiated
2023-10-11 15:39:04 UTC+0530	WebServerInstance	CREATE_IN_PROGRESS	-
2023-10-11 15:39:03 UTC+0530	WebServerSecurityGroup	CREATE_COMPLETE	-
2023-10-11 15:39:02 UTC+0530	WebServerSecurityGroup	CREATE_IN_PROGRESS	Resource creation Initiated
2023-10-11 15:38:57 UTC+0530	WebServerSecurityGroup	CREATE_IN_PROGRESS	Activate Windows Go to Settings to activate Windows.

And with our stack our instance is also created

The screenshot shows the AWS EC2 console. The 'Instances' list shows 'CFInstance' with a status of 'Running'. The instance details panel shows the instance is running on a t2.micro instance type in the ap-northeast-1c availability zone.

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
CFInstance	i-05cb74eace16c3a2a	Running	t2.micro	2/2 checks passed	No alarms	ap-northeast-1c	ec2-18-181-221-