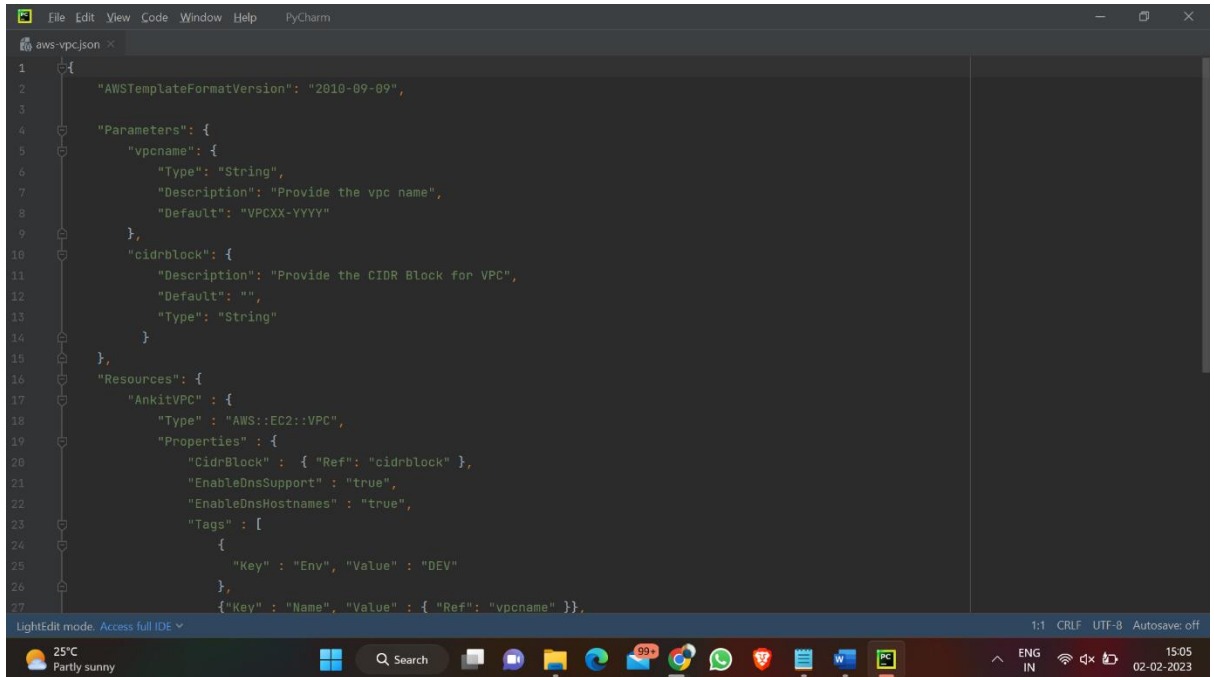


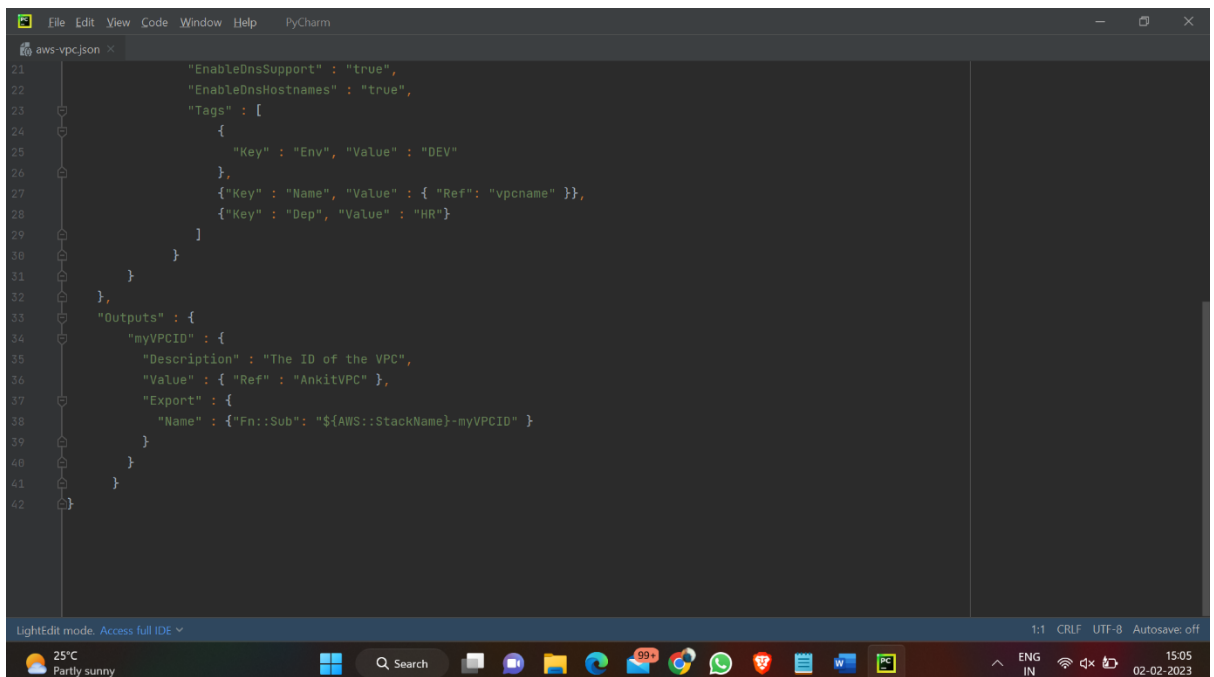
AWS CloudFormation Templates

1.CloudFormation for VPC

1.1 Write the script for VPC

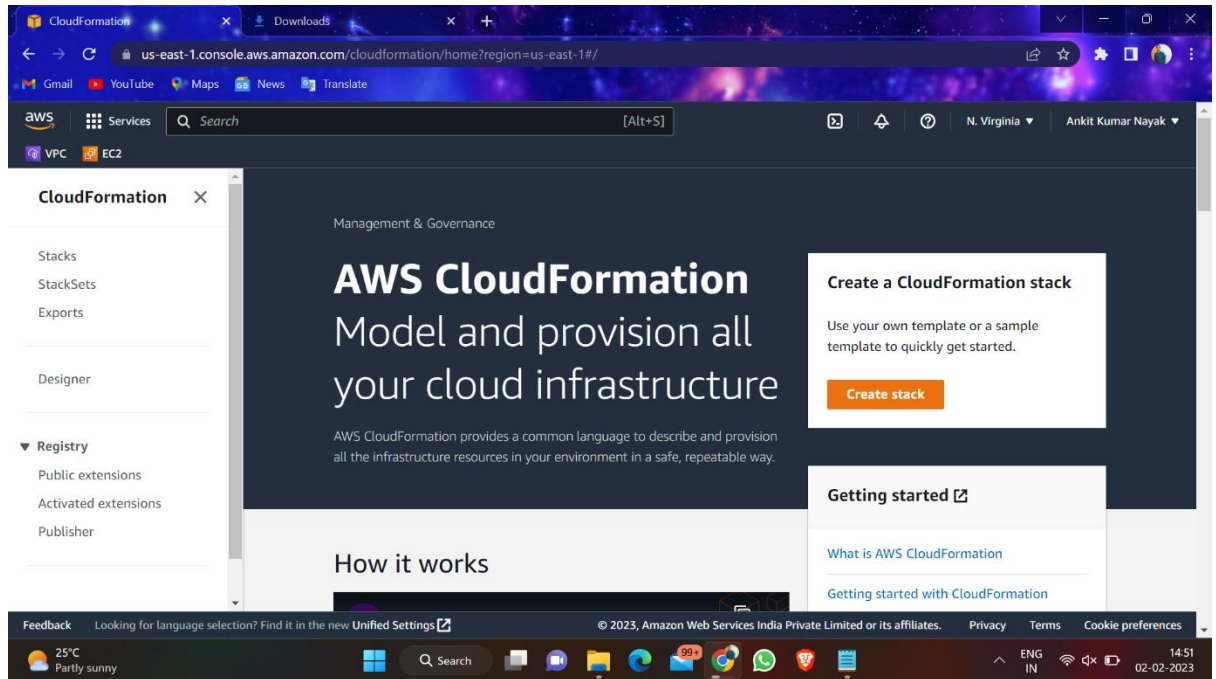


```
1 {
2   "AWSTemplateFormatVersion": "2010-09-09",
3
4   "Parameters": {
5     "vpcname": {
6       "Type": "String",
7       "Description": "Provide the vpc name",
8       "Default": "VPCXX-YYYY"
9     },
10    "cidrblock": {
11      "Description": "Provide the CIDR Block for VPC",
12      "Default": "",
13      "Type": "String"
14    }
15  },
16  "Resources": {
17    "AnkitVPC" : {
18      "Type": "AWS::EC2::VPC",
19      "Properties": {
20        "CidrBlock" : { "Ref": "cidrblock" },
21        "EnableDnsSupport" : "true",
22        "EnableDnsHostnames" : "true",
23        "Tags" : [
24          {
25            "Key" : "Env", "Value" : "DEV"
26          },
27          { "Key" : "Name", "Value" : { "Ref": "vpcname" } },
28        ]
29      }
30    }
31  }
```

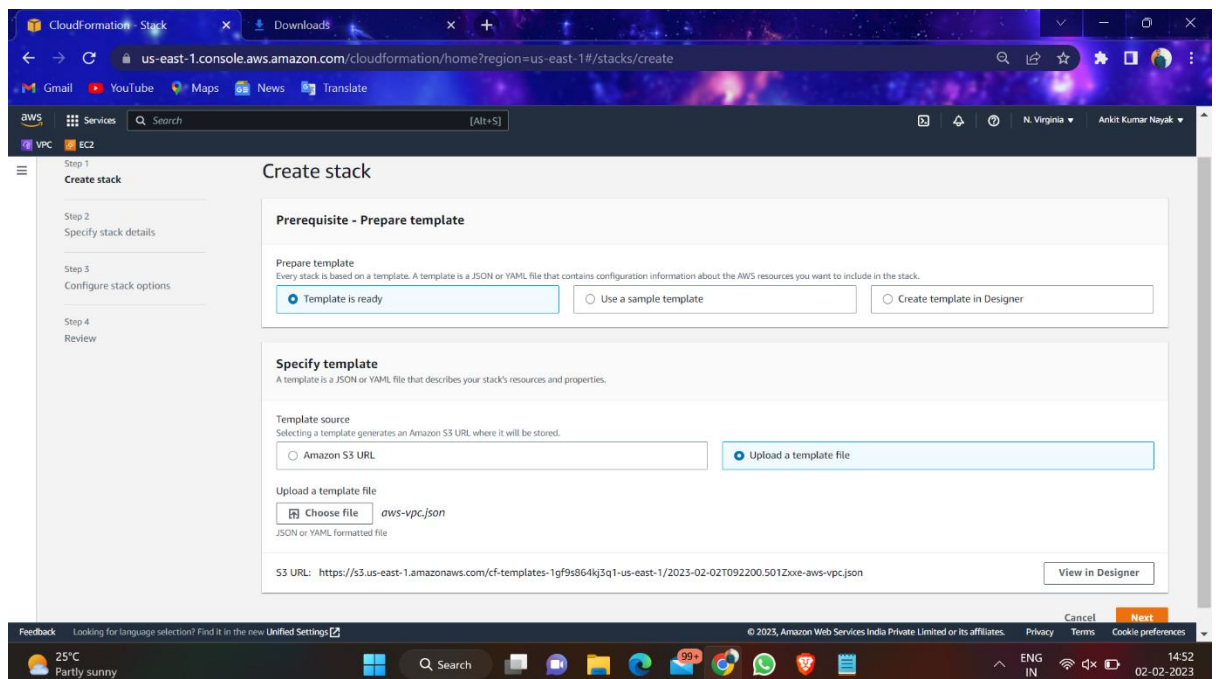


```
31  },
32  },
33  "Outputs": {
34    "myVPCID" : {
35      "Description": "The ID of the VPC",
36      "Value" : { "Ref" : "AnkitVPC" },
37      "Export": {
38        "Name" : { "Fn::Sub": "${AWS::StackName}-myVPCID" }
39      }
40    }
41  }
42 }
```

1.2 Create a CloudFormation stack → Create stack



1.3 Upload the Script



1.4 Specify the stack detail

The screenshot shows the AWS CloudFormation console in the 'us-east-1' region. The 'Create stack' wizard is at Step 2, 'Specify stack details'. The left sidebar shows the progress: Step 1 (Create stack), Step 2 (Specify stack details), Step 3 (Configure stack options), and Step 4 (Review myvpc). The main content area has a 'Stack name' field with the value 'myvpc' and a 'Parameters' section. The 'Parameters' section contains two parameters: 'cidrblock' with the value '192.18.0.0/16' and 'vpcname' with the value 'VPCXX-YYYY'. At the bottom right, there are 'Cancel', 'Previous', and 'Next' buttons.

CloudFormation - Stack

us-east-1.console.aws.amazon.com/cloudformation/home?region=us-east-1#/stacks/create

CloudFormation > Stacks > Create stack

Step 1
Create stack

Step 2
Specify stack details

Step 3
Configure stack options

Step 4
Review myvpc

Specify stack details

Stack name

Stack name

myvpc

Stack name can include letters (A-Z and a-z), numbers (0-9), and dashes (-).

Parameters

Parameters are defined in your template and allow you to input custom values when you create or update a stack.

cidrblock
Provide the CIDR Block for VPC.

192.18.0.0/16

vpcname
Provide the vpc name

VPCXX-YYYY

Cancel Previous Next

1.5 Review of vpc

The screenshot shows the AWS CloudFormation console in the 'us-east-1' region. The 'Create stack' wizard is at Step 4, 'Review myvpc'. The left sidebar shows the progress: Step 1 (Create stack), Step 2 (Specify stack details), Step 3 (Configure stack options), and Step 4 (Review myvpc). The main content area shows the 'Review myvpc' step. It has a 'Template' section with the URL 'https://s3.us-east-1.amazonaws.com/cf-templates-1gfb9864k3q1-us-east-1/2023-02-02T092200.501Zcoe-aws-vpc.json' and a 'Stack description' field. Below this is a 'Parameters (2)' section with a table showing the parameters 'cidrblock' and 'vpcname' with their respective values. At the bottom right, there are 'Edit' buttons for each step.

CloudFormation - Stack

us-east-1.console.aws.amazon.com/cloudformation/home?region=us-east-1#/stacks/create

CloudFormation > Stacks > Create stack

Step 1
Create stack

Step 2
Specify stack details

Step 3
Configure stack options

Step 4
Review myvpc

Review myvpc

Step 1: Specify template

Template

Template URL

https://s3.us-east-1.amazonaws.com/cf-templates-1gfb9864k3q1-us-east-1/2023-02-02T092200.501Zcoe-aws-vpc.json

Stack description

-

Step 2: Specify stack details

Parameters (2)

Key	Value
cidrblock	192.18.0.0/16
vpcname	VPCXX-YYYY

Step 3: Configure stack options

CloudFormation - Stack x Your VPCs | VPC Management C x Downloads x +

us-east-1.console.aws.amazon.com/cloudformation/home?region=us-east-1#/stacks/create

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Search [Alt+S]

N. Virginia Ankit Kumar Nayak

Step 3: Configure stack options

Edit

Tags

Search tags

< 1 >

Key	Value
No tags	
There are no tags defined for this stack	

Permissions

No permissions

There is no IAM role associated with this stack

Stack failure options

Rollback on failure

Enabled

Stack policy

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Search

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us-east-1.console.aws.amazon.com/cloudformation/home?region=us-east-1#/stacks/create

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Stack policy

No stack policy

There is no stack policy defined

Rollback configuration

Monitoring time

-

CloudWatch alarm ARN

-

Notification options

SNS topic ARN

No notification options

There are no notification options defined

Stack creation options

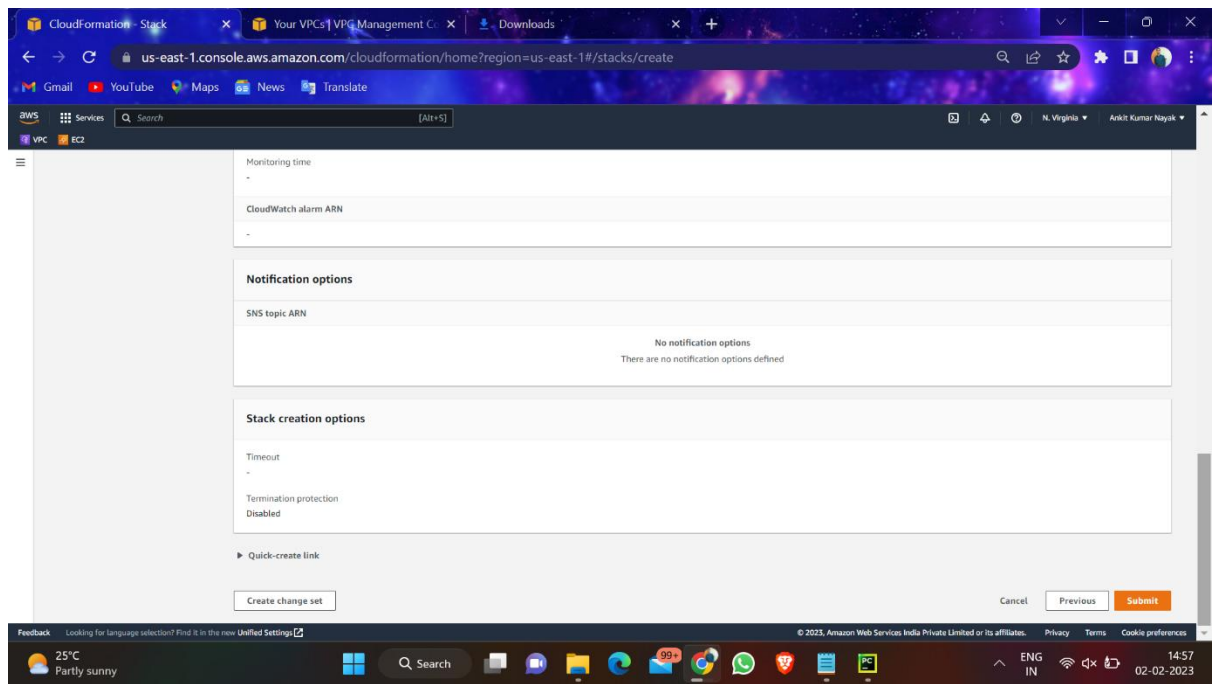
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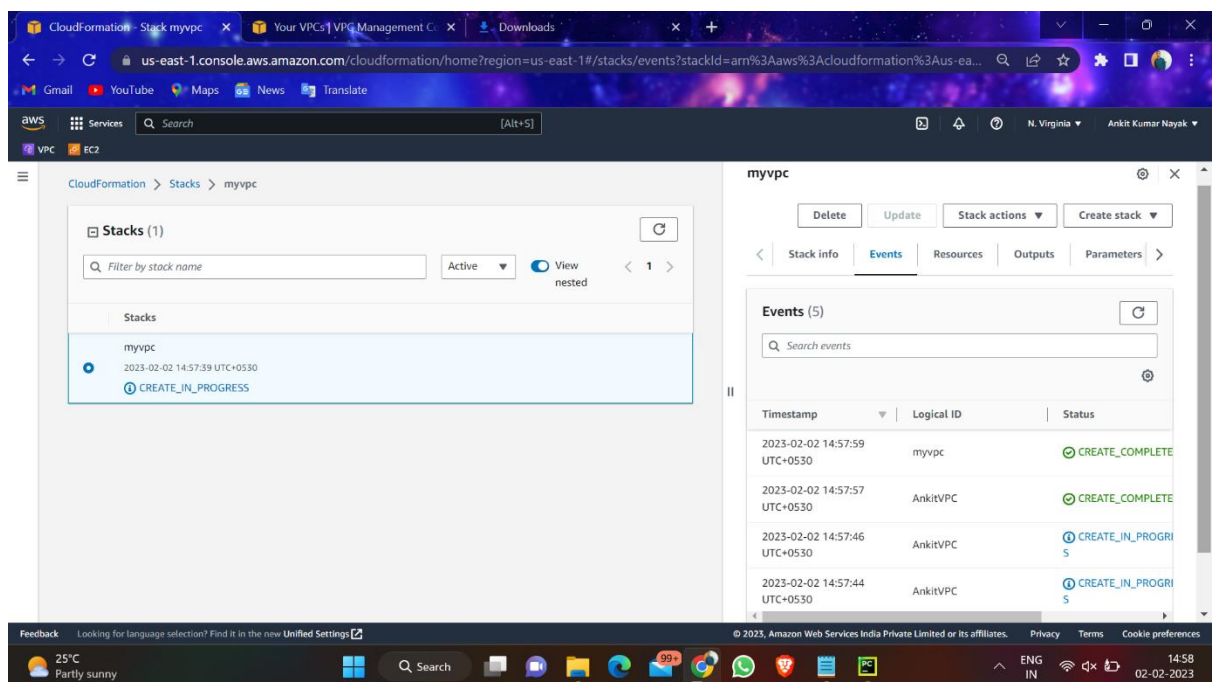
25°C Partly sunny

Search

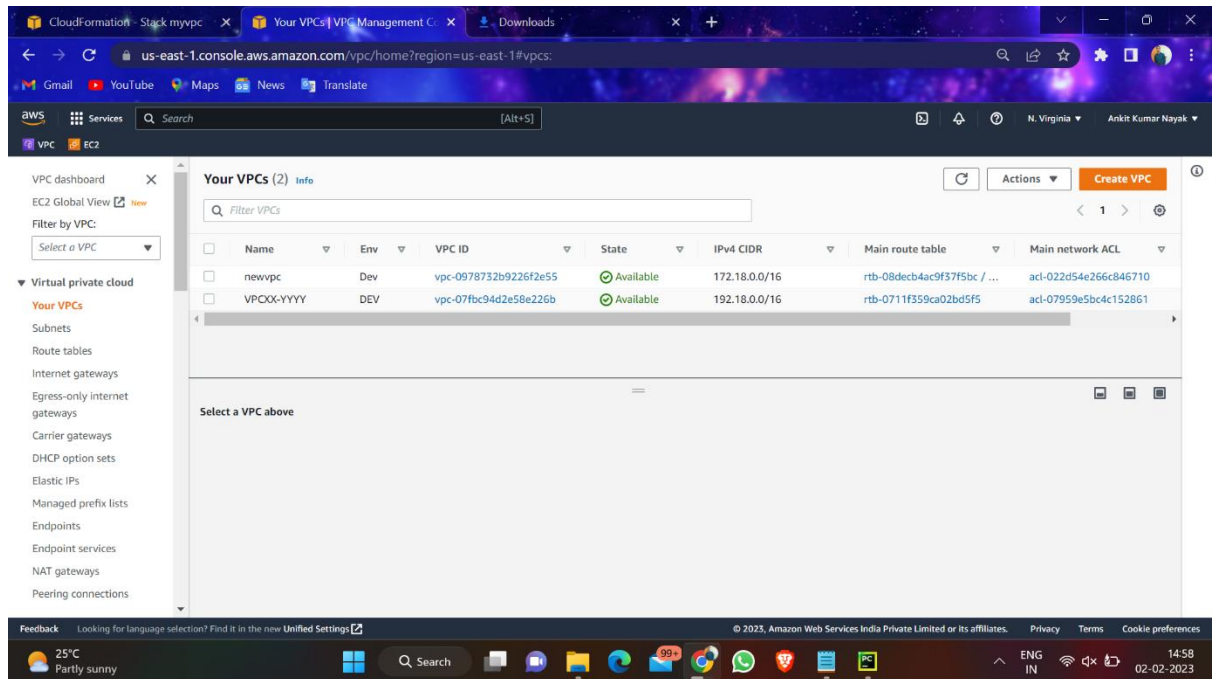
ENG IN 14:57 02-02-2023



1.6 Creating vpc in progress

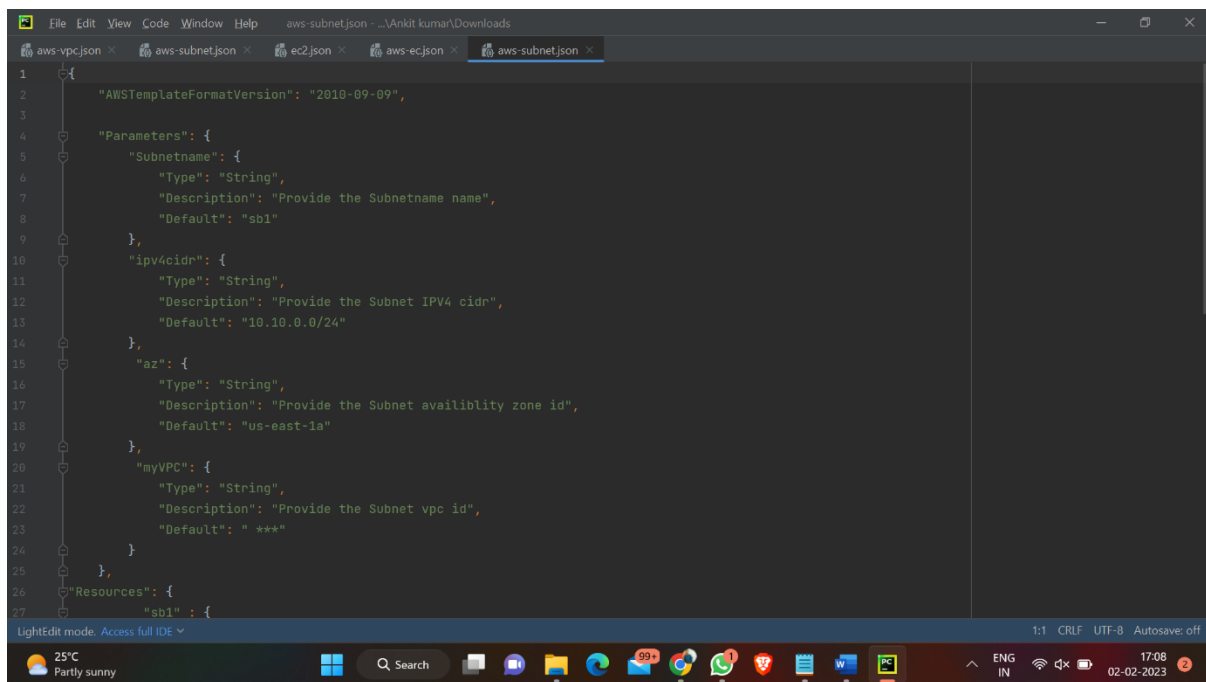


1.7 Vpc created successfully



2. CloudFormation for Subnets

1.1 Write the script for subnet




```
26 "Resources": {  
27   "sb1": {  
28     "Type": "AWS::EC2::Subnet",  
29     "Properties": {  
30       "VpcId": { "Ref": "myVPC" },  
31       "CidrBlock": { "Ref": "ipv4cidr" },  
32       "AvailabilityZone": { "Ref": "az" },  
33       "Tags": [ { "Key": "env", "Value": "dev" } ]  
34     }  
35   }  
36 }  
37  
38  
39  
40 "Outputs": {  
41   "mysb": {  
42     "Description": "The ID of the sb",  
43     "Value": { "Ref": "sb1" },  
44     "Export": {  
45       "Name": { "Fn::Sub": "${AWS::StackName}-mysb" }  
46     }  
47   }  
48 }  
49 }  
50  
51  
52
```

LightEdit mode. Access full IDE ▾

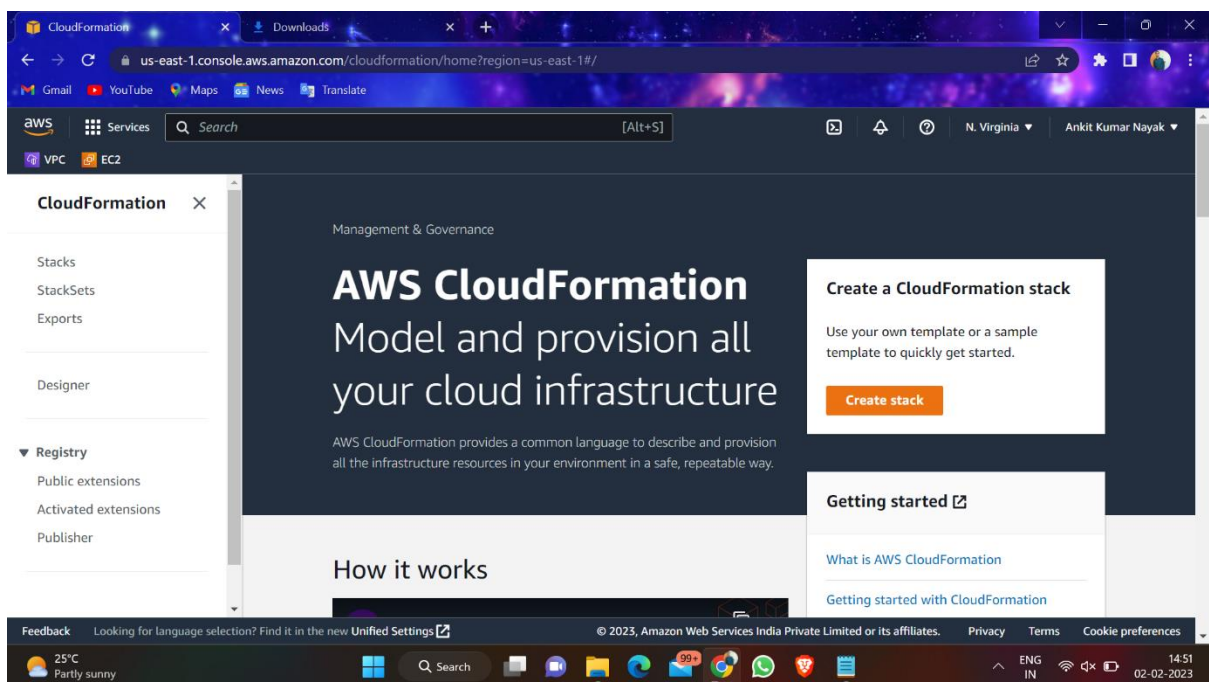
1:1 CRLF UTF-8 Autosave: off

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ENG IN 17:08 02-02-2023

1.2 Create a CloudFormation stack → Create stack



1.2 Upload the Script

The screenshot shows the AWS CloudFormation console in the 'us-east-1' region. The 'Create stack' wizard is open, and the first step, 'Prerequisite - Prepare template', is active. The left sidebar shows the progress: Step 1 (Create stack), Step 2 (Specify stack details), Step 3 (Configure stack options), and Step 4 (Review). The main content area has two sections: 'Prepare template' and 'Specify template'. In 'Prepare template', the 'Template ready' radio button is selected. In 'Specify template', the 'Upload a template file' radio button is selected. Below this, the 'Template source' section shows the 'Amazon S3 URL' radio button selected. The 'Upload a template file' section shows a file named 'aws-subnet.json' chosen. The 'S3 URL' is displayed as 'https://s3.us-east-1.amazonaws.com/cf-templates-1gf9s864k3q1-us-east-1/2023-02-02T101547.315Zfc9-aws-subnet.json'. A 'View in Designer' button is at the bottom right. The bottom of the screen shows the Windows taskbar with the date and time as 15:46 on 02-02-2023.

CloudFormation - Stack x Your VPCs | VPC Management C x Bhupendra R | Microsoft Teams x +

us-east-1.console.aws.amazon.com/cloudformation/home?region=us-east-1#/stacks/create

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AWS Services Search [Alt+S]

VPC EC2

Step 1
Create stack

Step 2
Specify stack details

Step 3
Configure stack options

Step 4
Review

Create stack

Prerequisite - Prepare template

Prepare template
Every stack is based on a template. A template is a JSON or YAML file that contains configuration information about the AWS resources you want to include in the stack.

☒ Template ready ☐ Use a sample template ☐ Create template in Designer

Specify template
A template is a JSON or YAML file that describes your stack's resources and properties.

Template source
Selecting a template generates an Amazon S3 URL where it will be stored.

☐ Amazon S3 URL ☒ Upload a template file

Upload a template file
Choose file aws-subnet.json
JSON or YAML formatted file

S3 URL: https://s3.us-east-1.amazonaws.com/cf-templates-1gf9s864k3q1-us-east-1/2023-02-02T101547.315Zfc9-aws-subnet.json View in Designer

Cancel Next

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Search

ENG IN 15:46 02-02-2023

1.5 Specify the stack detail for subnet1 and subnet2

The screenshot shows the AWS CloudFormation console in the 'us-east-1' region. The 'Specify stack details' wizard is open, and the second step, 'Specify stack details', is active. The left sidebar shows the progress: Step 1 (Create stack), Step 2 (Specify stack details), Step 3 (Configure stack options), and Step 4 (Review). The main content area has two sections: 'Stack name' and 'Parameters'. In 'Stack name', the 'Stack name' text box contains 'mysub'. In 'Parameters', the 'Subnetname' text box contains 'sb1', the 'az' text box contains 'us-east-1a', the 'ip4cidr' text box contains '192.168.0.0/24', and the 'myVPC' text box contains 'vpc-07fbc94d2e58e226d'. The bottom of the screen shows the Windows taskbar with the date and time as 15:48 on 02-02-2023.

CloudFormation - Stack x Your VPCs | VPC Management C x Bhupendra R | Microsoft Teams x +

us-east-1.console.aws.amazon.com/cloudformation/home?region=us-east-1#/stacks/create

Gmail YouTube Maps News Translate

AWS Services Search [Alt+S]

VPC EC2

Step 2
Specify stack details

Step 3
Configure stack options

Step 4
Review mysub

Specify stack details

Stack name

Stack name
mysub
Stack name can include letters (A-Z and a-z), numbers (0-9), and dashes (-).

Parameters
Parameters are defined in your template and allow you to input custom values when you create or update a stack.

Subnetname
Provide the Subnetname name
sb1

az
Provide the Subnet availability zone id
us-east-1a

ip4cidr
Provide the Subnet IPv4 cidr
192.168.0.0/24

myVPC
Provide the Subnet vpc id
vpc-07fbc94d2e58e226d

Cancel Previous Next

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us-east-1.console.aws.amazon.com/cloudformation/home?region=us-east-1#/stacks/create

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RWS Services Search [Alt+S]

VPC EC2

Step 2: Specify stack details

Stack name

Stack name

Enter a stack name

Stack name can include letters (A-Z and a-z), numbers (0-9), and dashes (-).

Parameters

Parameters are defined in your template and allow you to input custom values when you create or update a stack.

Subnetname

Provide the Subnetname name

sb2

az

Provide the Subnet availability zone id

us-east-1a

ip4cidr

Provide the Subnet IPv4 cidr

192.18.1.0/24

myVPC

Provide the Subnet vpc id

vpc-07fbc94d2e58e226b

Cancel Previous Next

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ENG IN

15:52 02-02-2023

Review of subnet1 and subnet 2

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us-east-1.console.aws.amazon.com/cloudformation/home?region=us-east-1#/stacks/create

Gmail YouTube Maps News Translate

RWS Services Search [Alt+S]

VPC EC2

Step 1: Create stack

Step 2: Specify stack details

Step 3: Configure stack options

Step 4: Review mysub

Review mysub

Step 1: Specify template

Template

Template URL

https://s3.us-east-1.amazonaws.com/cf-templates-1gfb864k3q1-us-east-1/2023-02-02T101547.315Zcf9-aws-subnet.json

Stack description

-

Step 2: Specify stack details

Parameters (4)

Search

Key	Value
az	us-east-1a
ip4cidr	192.18.0.0/24
myVPC	vpc-07fbc94d2e58e226b
Subnetname	sb1

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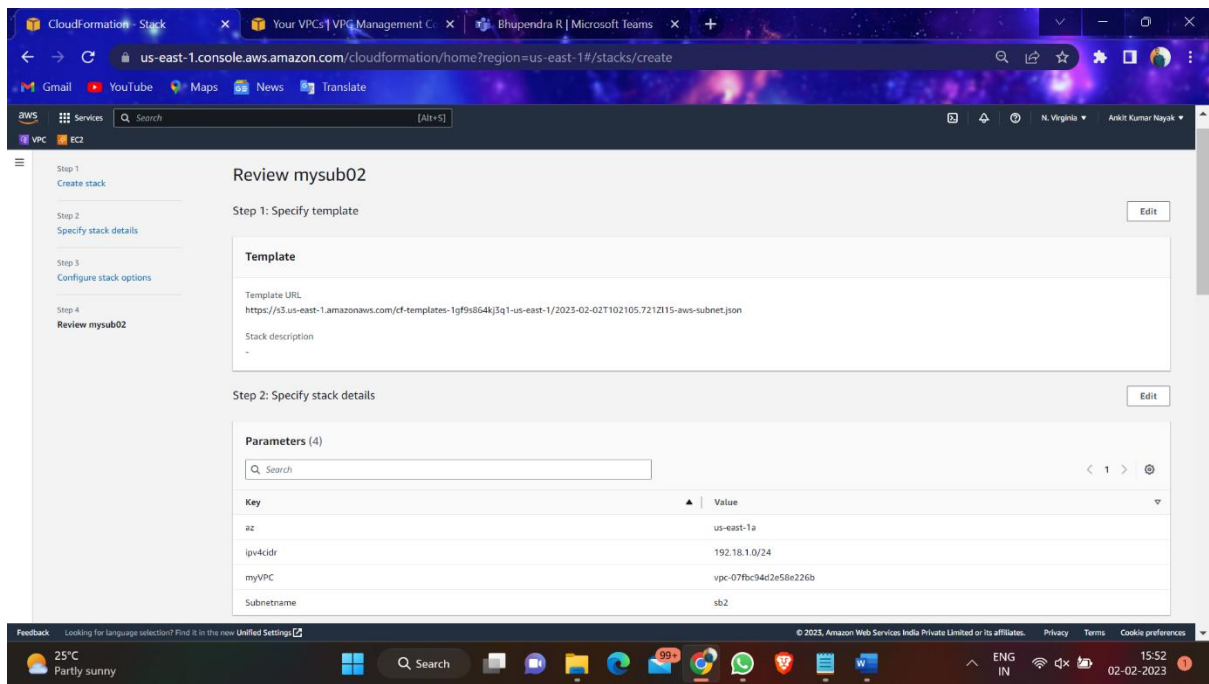
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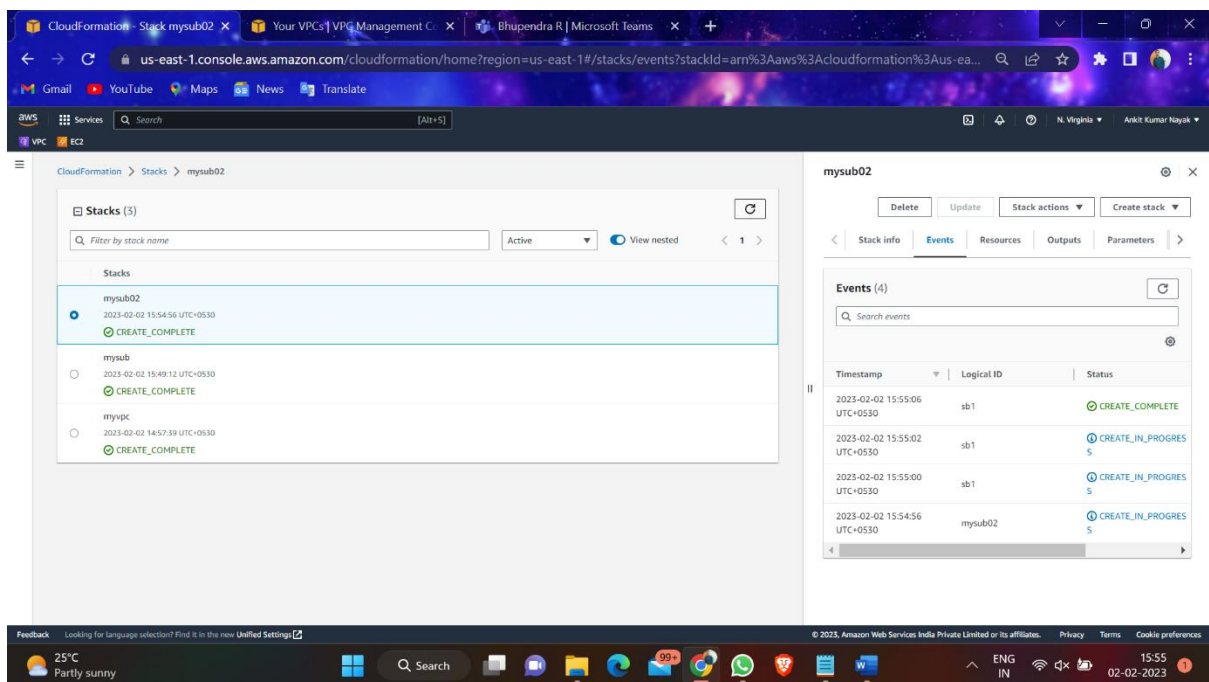
Search

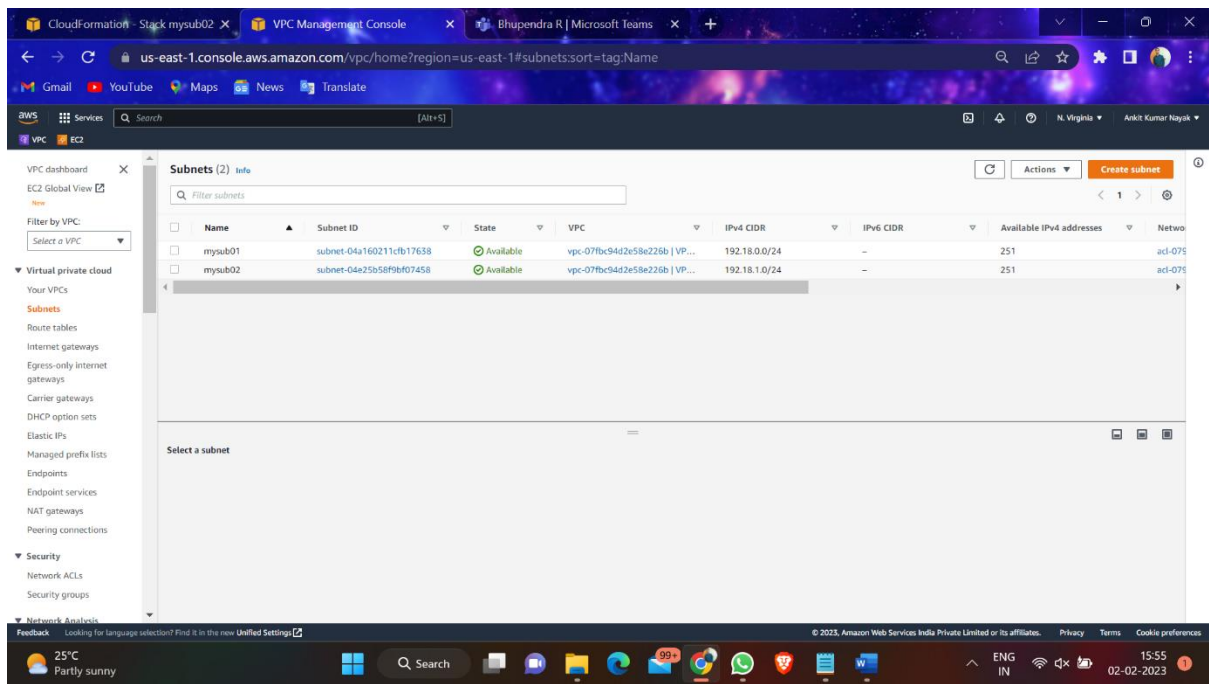
ENG IN

15:49 02-02-2023



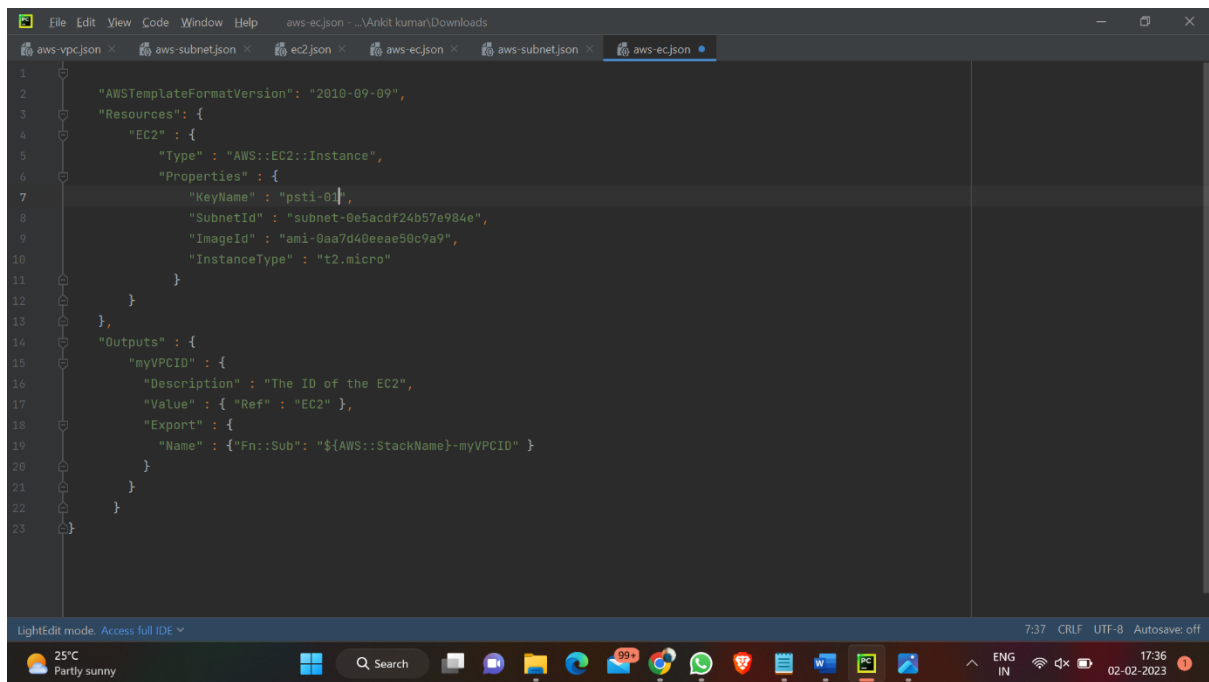
Subnets are created



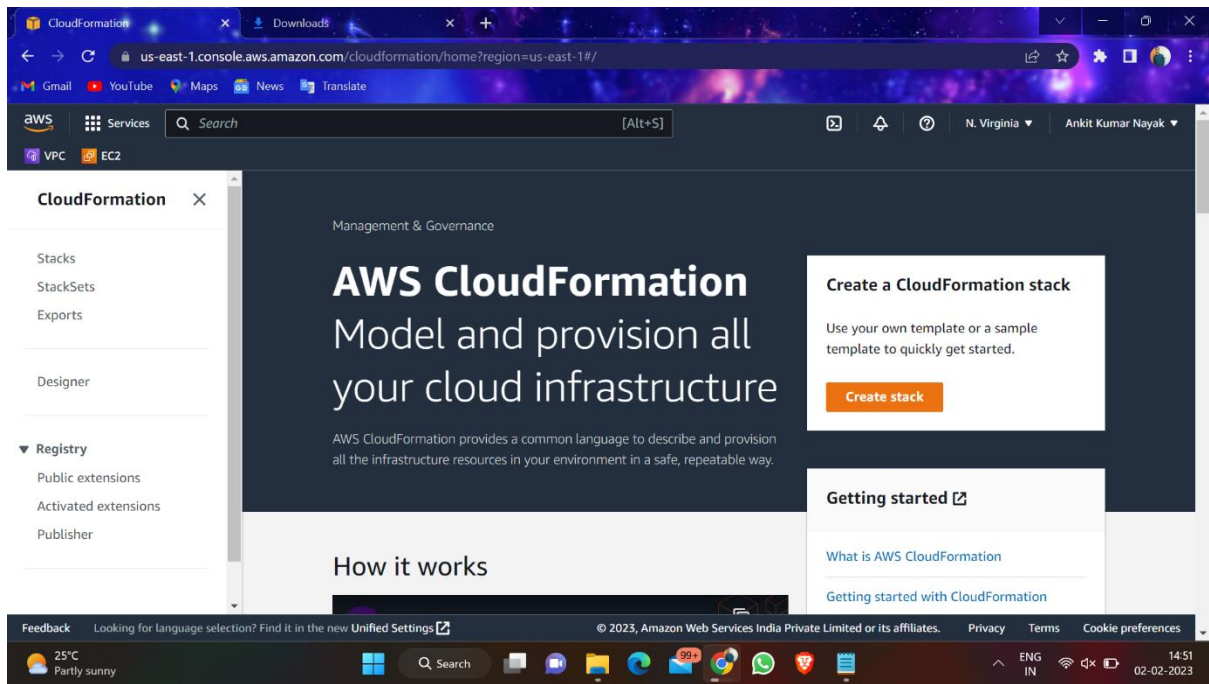


3. CloudFormation for EC2

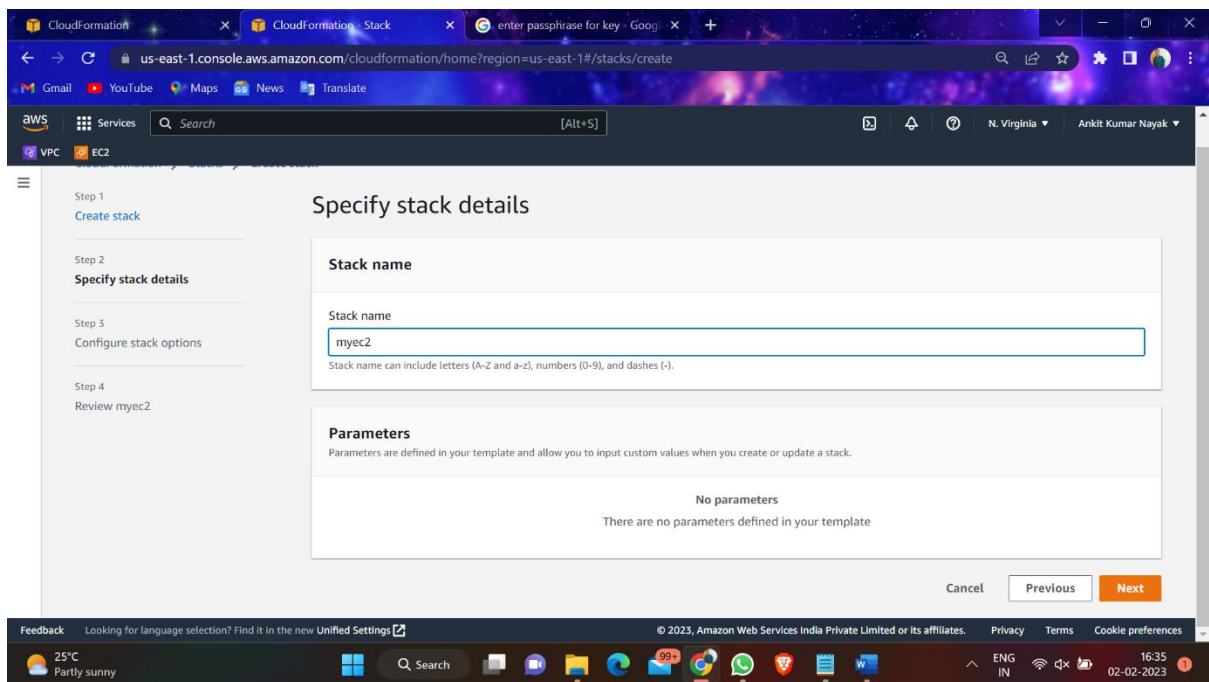
Write the script for ec2 instance



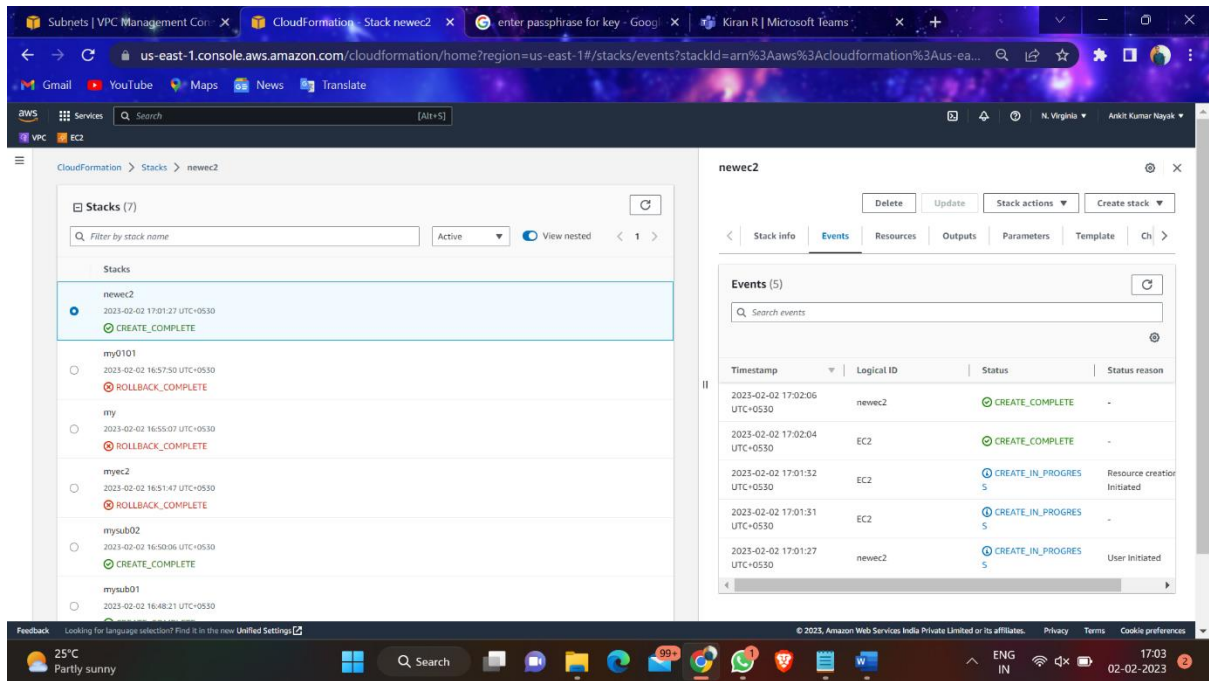
1.2 Create a CloudFormation stack → Create stack



Specific stack details



Creating the stack



EC2 instance is created

