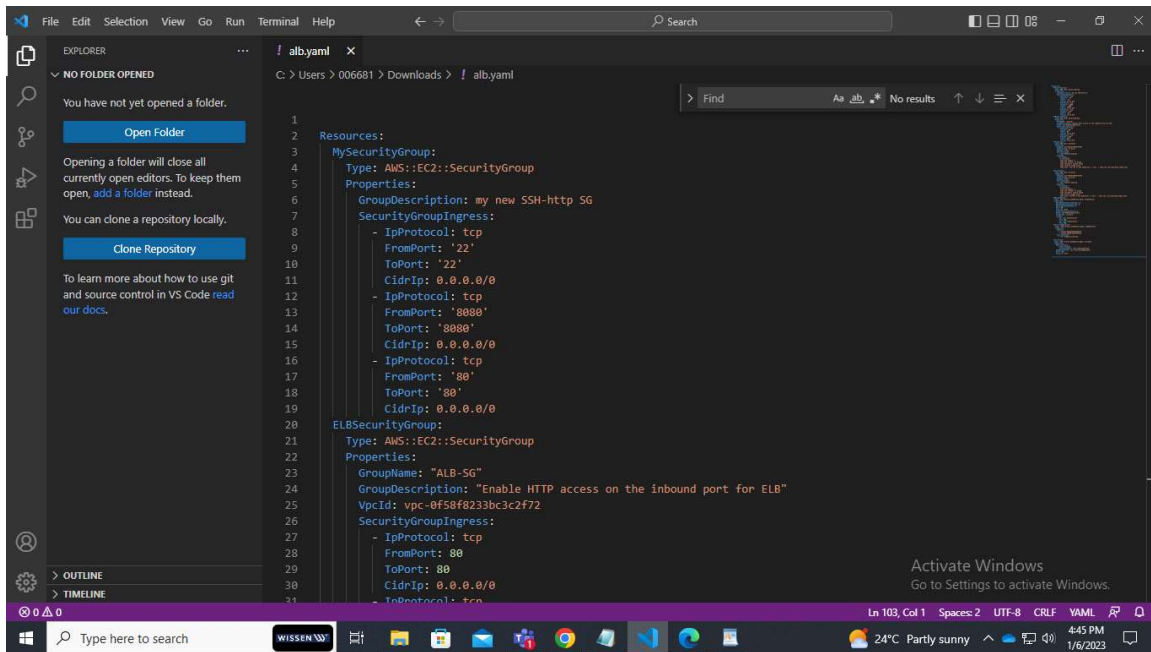
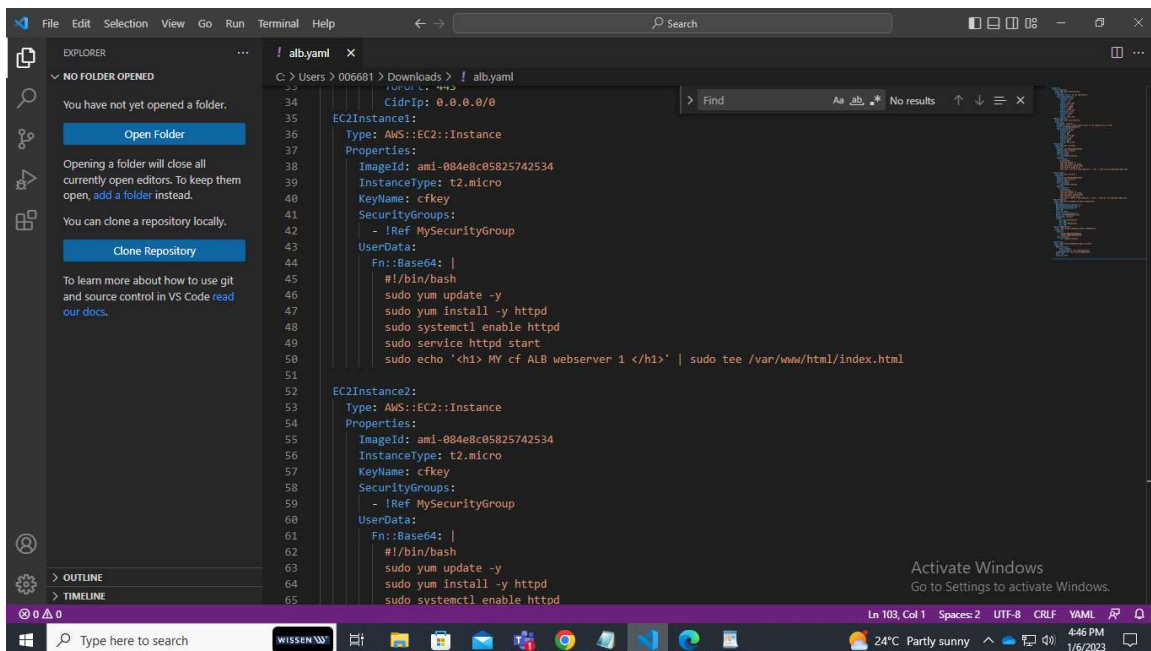


Creating Application load Balancer using Cloud Formation Template :



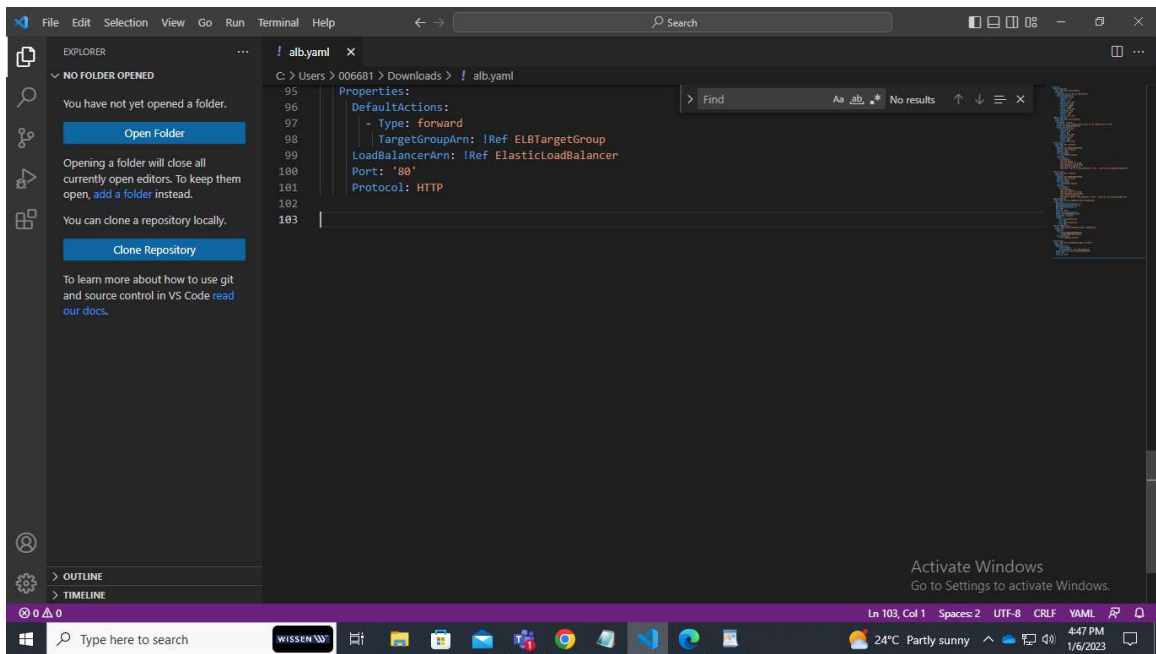
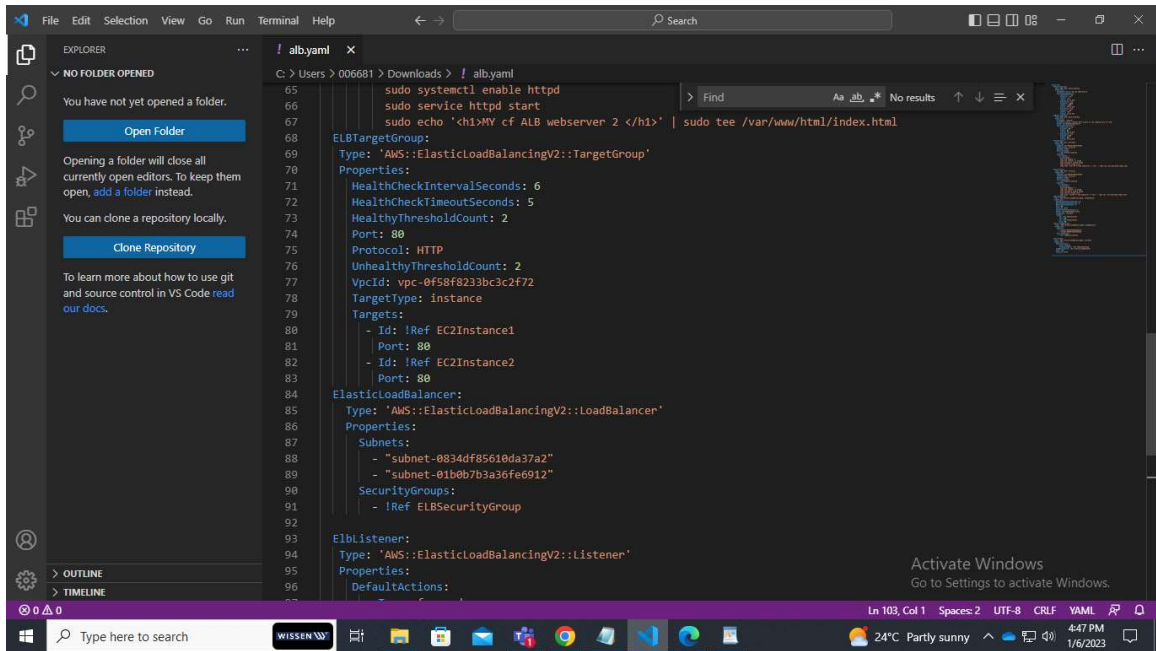
This screenshot shows the first part of a CloudFormation template in VS Code. The Explorer pane on the left shows the file 'alb.yaml' in the 'Downloads' folder. The main editor displays the 'Resources' section of the template, which defines two security groups: 'MySecurityGroup' and 'ELBSecurityGroup'. 'MySecurityGroup' has three ingress rules for ports 22, 8080, and 80. 'ELBSecurityGroup' has one ingress rule for port 80. The status bar at the bottom indicates the cursor is at line 103, column 1, in a YAML file.

```
1 Resources:
2   MySecurityGroup:
3     Type: AWS::EC2::SecurityGroup
4     Properties:
5       GroupDescription: my new SSH-http SG
6       SecurityGroupIngress:
7         - IpProtocol: tcp
8           FromPort: '22'
9           ToPort: '22'
10          CidrIp: 0.0.0.0/0
11          - IpProtocol: tcp
12            FromPort: '8080'
13            ToPort: '8080'
14            CidrIp: 0.0.0.0/0
15            - IpProtocol: tcp
16              FromPort: '80'
17              ToPort: '80'
18              CidrIp: 0.0.0.0/0
19              - IpProtocol: tcp
20                FromPort: '80'
21                ToPort: '80'
22                CidrIp: 0.0.0.0/0
23                - IpProtocol: tcp
24                  FromPort: '80'
25                  ToPort: '80'
26                  CidrIp: 0.0.0.0/0
27                  - IpProtocol: tcp
28                    FromPort: '80'
29                    ToPort: '80'
30                    CidrIp: 0.0.0.0/0
31                    - IpProtocol: tcp
```

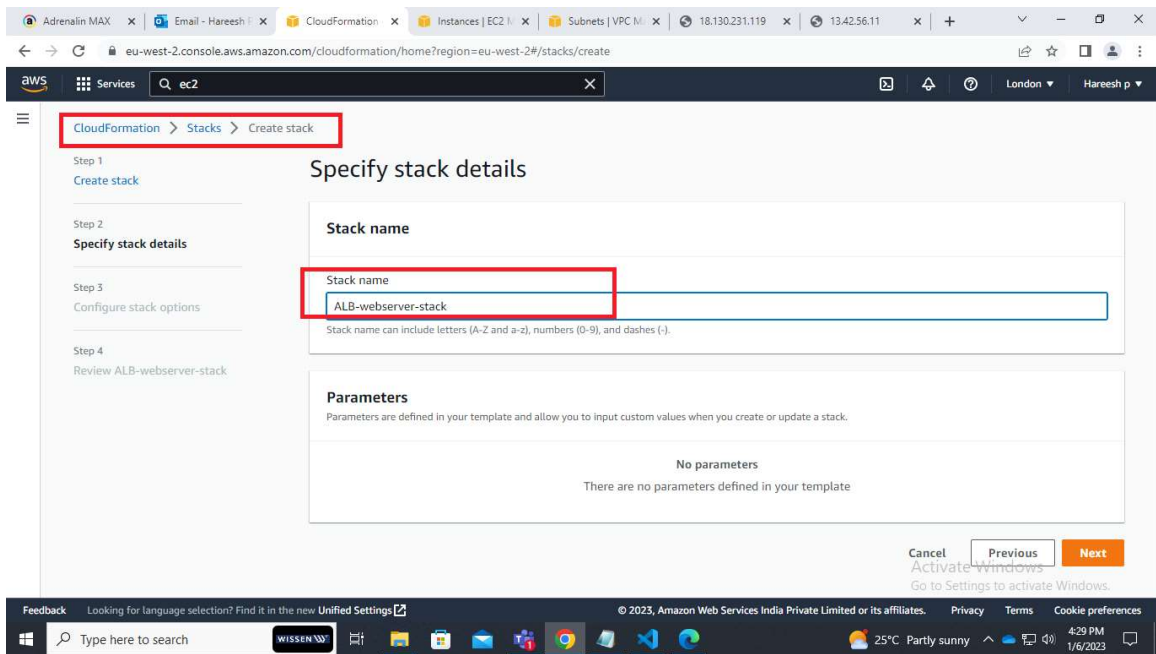
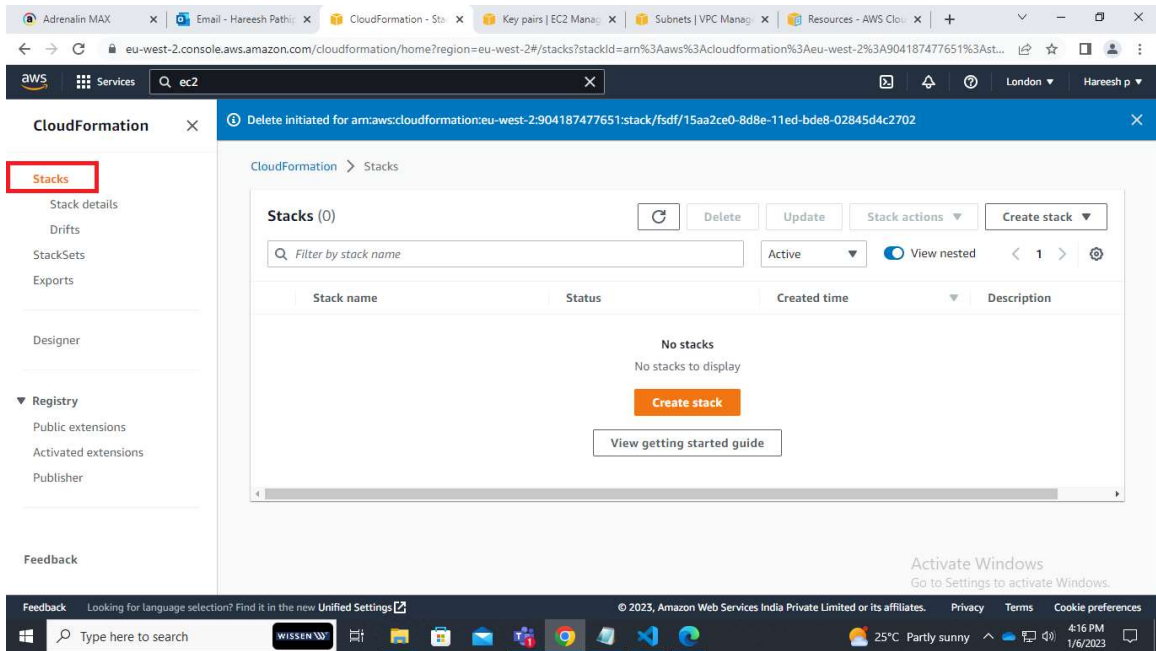


This screenshot shows the second part of the CloudFormation template in VS Code. The main editor displays the 'EC2Instance1' and 'EC2Instance2' resources. Both instances are of type 't2.micro' and use the 'ami-084e0c05825742534' image. They are associated with the 'MySecurityGroup' and have a user data script that installs and starts the Apache httpd service. The status bar at the bottom indicates the cursor is at line 103, column 1, in a YAML file.

```
34   CidrIp: 0.0.0.0/0
35   EC2Instance1:
36     Type: AWS::EC2::Instance
37     Properties:
38       ImageId: ami-084e0c05825742534
39       InstanceType: t2.micro
40       KeyName: cfkey
41       SecurityGroups:
42         - !Ref MySecurityGroup
43       UserData:
44         Fn::Base64: |
45           #!/bin/bash
46           sudo yum update -y
47           sudo yum install -y httpd
48           sudo systemctl enable httpd
49           sudo service httpd start
50           sudo echo 'hi> MY cf ALB webserver 1 </h1>' | sudo tee /var/www/html/index.html
51   EC2Instance2:
52     Type: AWS::EC2::Instance
53     Properties:
54       ImageId: ami-084e0c05825742534
55       InstanceType: t2.micro
56       KeyName: cfkey
57       SecurityGroups:
58         - !Ref MySecurityGroup
59       UserData:
60         Fn::Base64: |
61           #!/bin/bash
62           sudo yum update -y
63           sudo yum install -y httpd
64           sudo systemctl enable httpd
65
```



- Navigate to cloudformation service
- create a stack using code



CloudFormation > Stacks > ALB-webserver-stack

Stacks (1)

Filter by stack name

Active

View nested

Stacks

ALB-webserver-stack

2023-01-06 16:29:20 UTC+0530

CREATE_COMPLETE

ALB-webserver-stack

Delete Update Stack actions Create stack

Stack info Events Resources Outputs Parameters Templates

Overview

Stack ID: `arn:aws:cloudformation:eu-west-2:904187477651:stack/ALB-webserver-stack/2becb20-8db1-11ed-9446-0ae24c717924`

Description: -

Status: **CREATE_COMPLETE**

Status reason: -

Root stack: -

Parent stack: -

Created time: 2023-01-06 16:29:20 UTC+0530

Deleted time: -

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25°C Partly sunny 4:34 PM 1/6/2023

CloudFormation > Stacks > ALB-webserver-stack

Stacks (1)

Filter by stack name

Active

View nested

Stacks

ALB-webserver-stack

2023-01-06 16:29:20 UTC+0530

CREATE_COMPLETE

ALB-webserver-stack

Delete Update Stack actions Create stack

Stack info Events **Resources** Outputs Parameters Templates

Resources (7)

Search resources

Logical ID	Physical ID	Type	Status	Module
EC2Instance1	<code>i-0cb53f65ce6ec88d3</code>	AWS::EC2::Instance	CREATE_COMPLETE	-
EC2Instance2	<code>i-03737c5e4225fba6f</code>	AWS::EC2::Instance	CREATE_COMPLETE	-

arn:aws:elasticloadbalancing:

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25°C Partly sunny 4:34 PM 1/6/2023

Adrenalin MAX | Email - Hareesh Pathi | CloudFormation - Sta | Instances | EC2 Manag | Subnets | VPC Manag | 13.41.223.21

eu-west-2.console.aws.amazon.com/ec2/home?region=eu-west-2#Instances?v=3&case=tag:true%5Cclient:false%5Cregex=tags:false%5Cclient:false

Services Search [Alt+S] London Hareesh p

New EC2 Experience Tell us what you think

EC2 Dashboard
EC2 Global View
Events
Tags
Limits

Instances
Instances
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances
Dedicated Hosts
Capacity Reservations

Images
AMIs

Instances (2) Info

Find instance by attribute or tag (case-sensitive)

Instance state Instance state Actions Launch Instances

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
ALB-CF-webse...	i-0f6310e97e16fa440	Running	t2.micro	Initializing	No alarms	eu-west-2b
ALB-CF-webse...	i-0b4a51089c1374c6a	Running	t2.micro	Initializing	No alarms	eu-west-2b

Select an instance

Activate Windows
Go to Settings to activate Windows.

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Type here to search

Adrenalin MAX | Email - Hareesh Pathi | CloudFormation - Stack ALB | EC2 Management Console | Subnets | VPC Management

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

Services Search [Alt+S] London Hareesh p

AMI Catalog

Elastic Block Store
Volumes
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

Create Load Balancer Actions

Filter by tags and attributes or search by keyword

Name	DNS name	State	VPC ID	Availability Zones	Type
ALB-w-Elast-YB4D5ZCAQ8ZG	ALB-w-Elast-YB4D5ZCAQ8...	Active	vpc-0f5f8233bc3c27f2	eu-west-2b, eu-west-2a	application

Load balancer: ALB-w-Elast-YB4D5ZCAQ8ZG

Description Listeners Monitoring Integrated services Tags

Basic Configuration

Name ALB-w-Elast-YB4D5ZCAQ8ZG

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The screenshot displays the AWS Management Console for the 'eu-west-2' region. The 'Target Groups' page for the load balancer 'ALB-w-Elast-YB4D5ZCAQ8ZG' is shown. The 'Targets' tab is active, displaying a summary of 2 total targets, all of which are healthy. Below the summary, a table lists the registered targets:

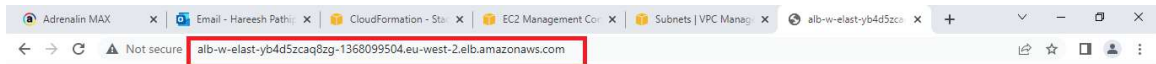
Instance ID	Name	Port	Zone	Health status	Health status details
i-0cb53f65ce6ec88d3	ALB-cf-server1	80	eu-west-2b	healthy	
i-03737c5e4225fba6f	ALB-cf-server2	80	eu-west-2b	healthy	

- Copy DNS name and paste the in the browser
- Refresh the browser and check the web content

The screenshot shows a web browser with the address bar containing the DNS name: `alb-w-elast-yb4d5zcaq8zg-1368099504.eu-west-2.elb.amazonaws.com`. The page content is blank, indicating that the web server is not yet configured to respond to requests.

MY cf ALB webserver 2

The screenshot shows the Windows taskbar and system tray area. The taskbar includes the Start button, a search bar, and several application icons. The system tray shows the time as 4:36 PM on 1/6/2023 and the weather as 24°C Partly sunny.



MY cf ALB webserver 1

Activate Windows
Go to Settings to activate Windows.

