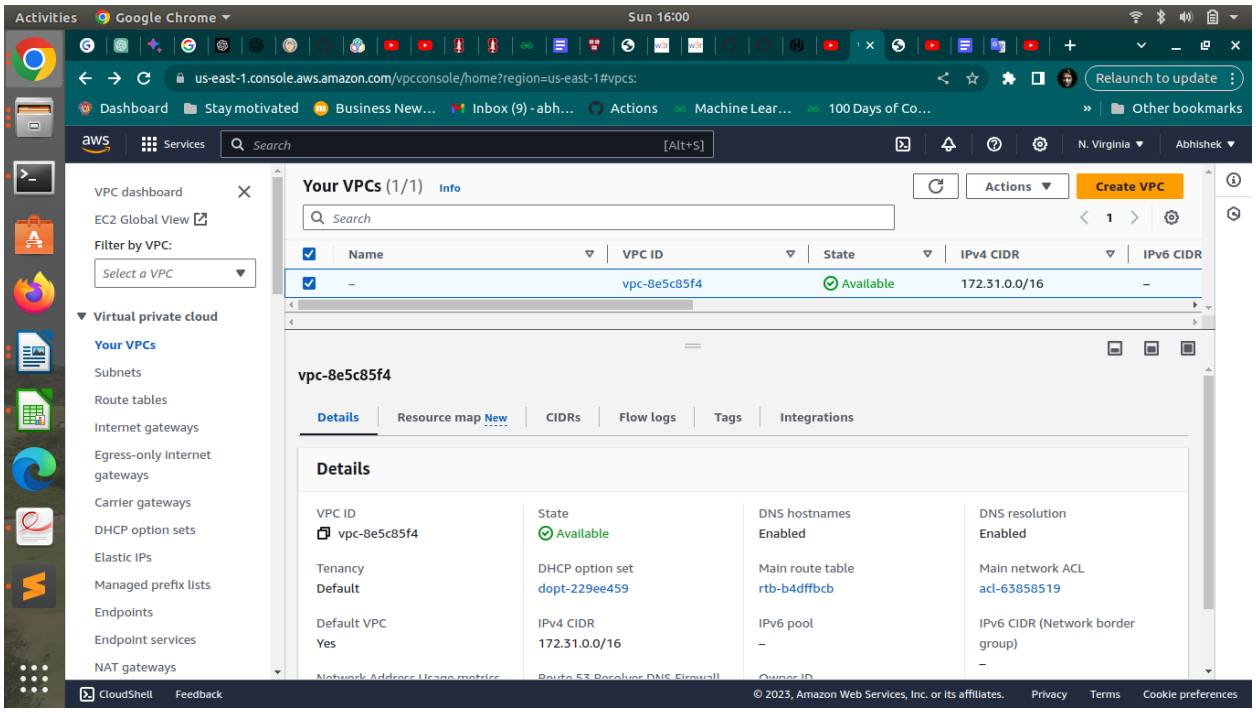
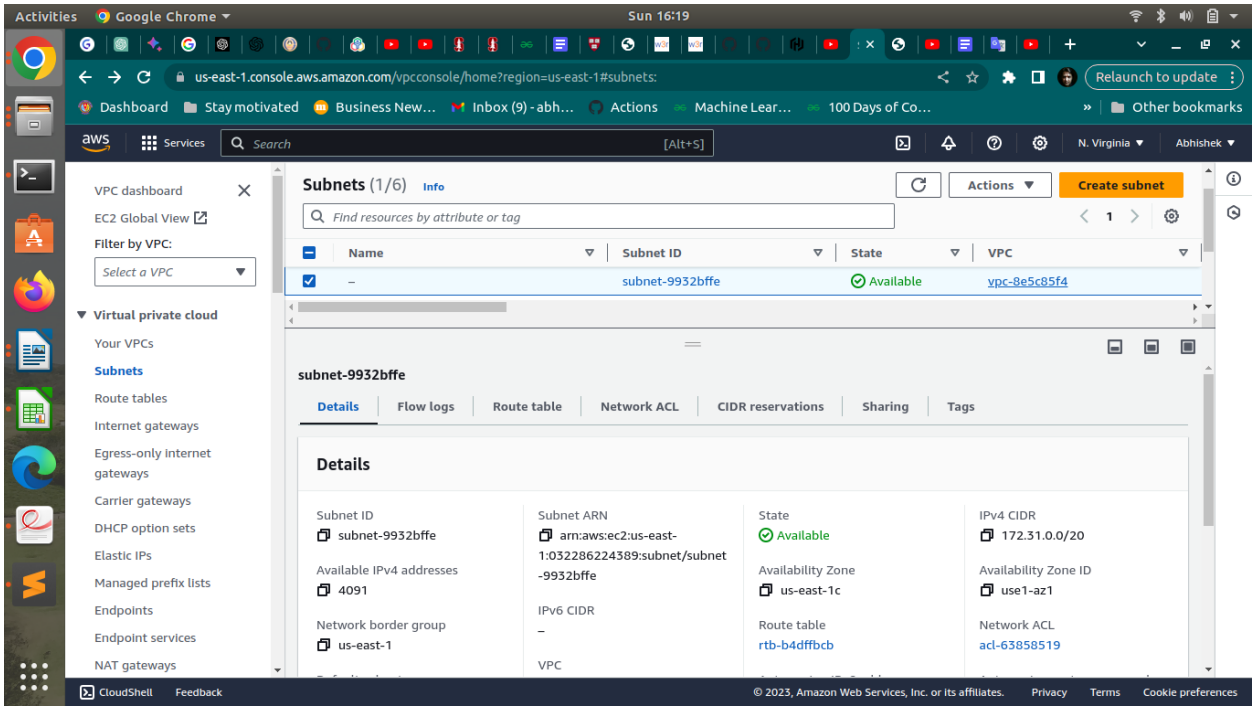
Learning Outcomes

- Using the CloudFormation CLI
- Observe the JSON structure used in CloudFormation
- Observe the process of stack creation in CloudFormation

How to do it.

- Download the file *CF1.json* and *CF2.json* provided along with this DIY
- Open the AWS Console and navigate to the VPC section
- Note down the ID of the default VPC already created
- Navigate to the subnet section by clicking on “Subnets” on the left side.
- Note down the subnet ID of the default subnet already created for the default VPC
- Click on “Create Subnet” at the top of the screen
- Fill in the form as shown below and click on Create




Activities
Google Chrome
Sun 16:19
us-east-1.console.aws.amazon.com/vpcconsole/home?region=us-east-1#subnets:
Relaunch to update
Dashboard
Stay motivated
Business New...
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Machine Lear...
100 Days of Co...
Other bookmarks
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VPC dashboard
EC2 Global View
Filter by VPC:
Select a VPC
Virtual private cloud
Your VPCs
Subnets
Route tables
Internet gateways
Egress-only internet gateways
Carrier gateways
DHCP option sets
Elastic IPs
Managed prefix lists
Endpoints
Endpoint services
NAT gateways
Subnets (1/6) Info
Find resources by attribute or tag
Actions
Create subnet
Name
Subnet ID
State
VPC
subnet-9932bffe
Available
vpc-8e5c85f4
subnet-9932bffe
Details
Flow logs
Route table
Network ACL
CIDR reservations
Sharing
Tags
Details
Subnet ID
subnet-9932bffe
Subnet ARN
arn:aws:ec2:us-east-1:032286224389:subnet/subnet-9932bffe
State
Available
IPv4 CIDR
172.31.0.0/20
Available IPv4 addresses
4091
Availability Zone
us-east-1c
Availability Zone ID
use1-az1
Network border group
us-east-1
IPv6 CIDR
–
Route table
rtb-b4dffbcb
Network ACL
acl-63858519
VPC
CloudShell
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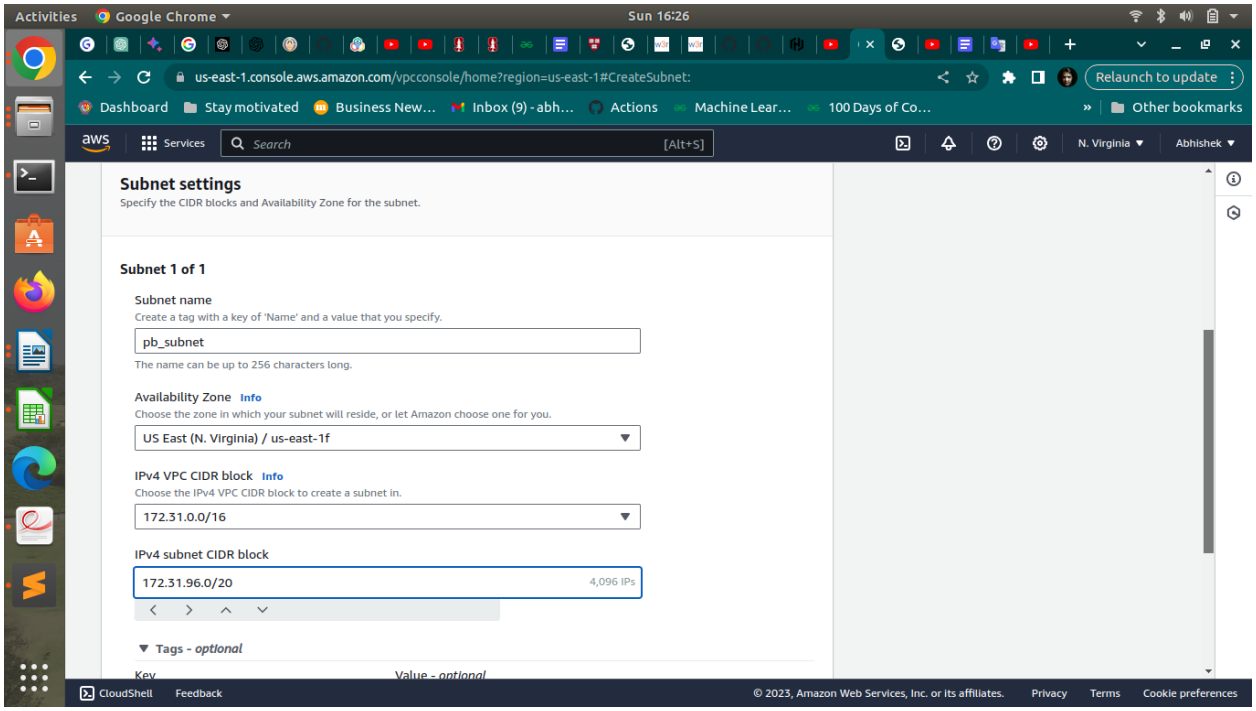
Activities
Google Chrome
Sun 16:26
us-east-1.console.aws.amazon.com/vpcconsole/home?region=us-east-1#CreateSubnet:
Relaunch to update
Dashboard
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Subnet settings
Specify the CIDR blocks and Availability Zone for the subnet.
Subnet 1 of 1
Subnet name
Create a tag with a key of 'Name' and a value that you specify.
pb_subnet
The name can be up to 256 characters long.
Availability Zone Info
Choose the zone in which your subnet will reside, or let Amazon choose one for you.
US East (N. Virginia) / us-east-1f
IPv4 VPC CIDR block Info
Choose the IPv4 VPC CIDR block to create a subnet in.
172.31.0.0/16
IPv4 subnet CIDR block
172.31.96.0/20
4,096 IPs
Tags - optional
Key
Value - optional
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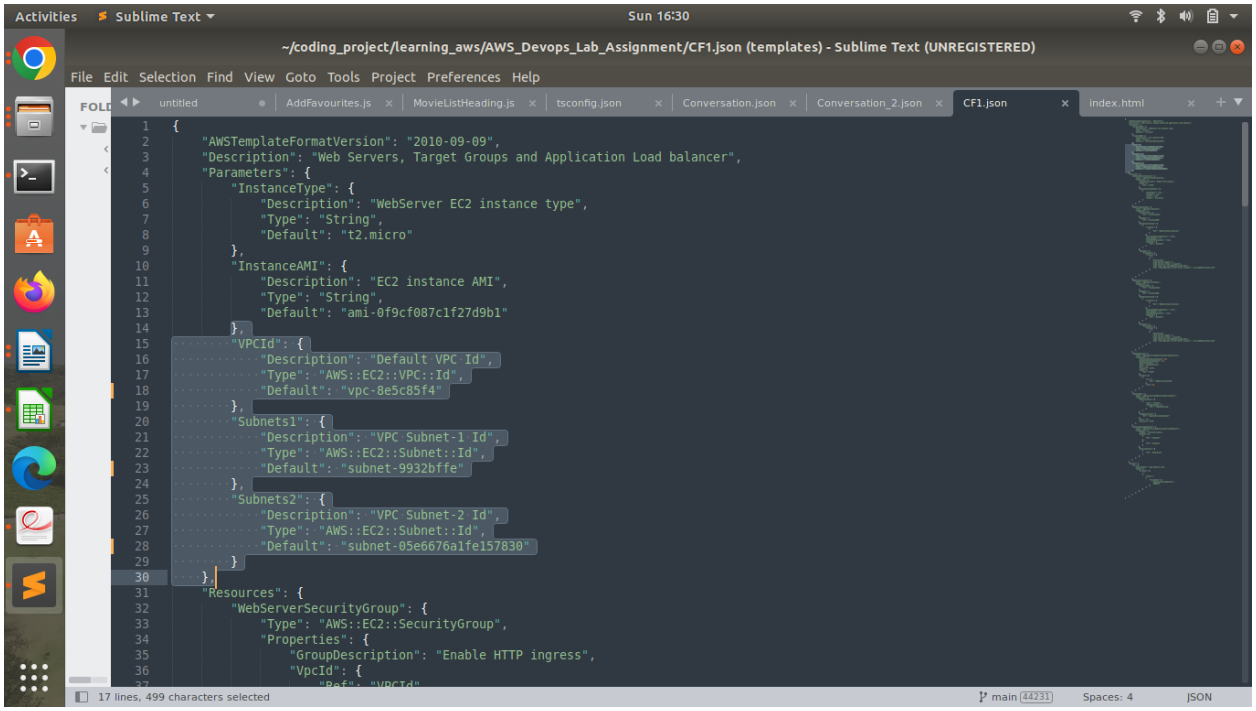
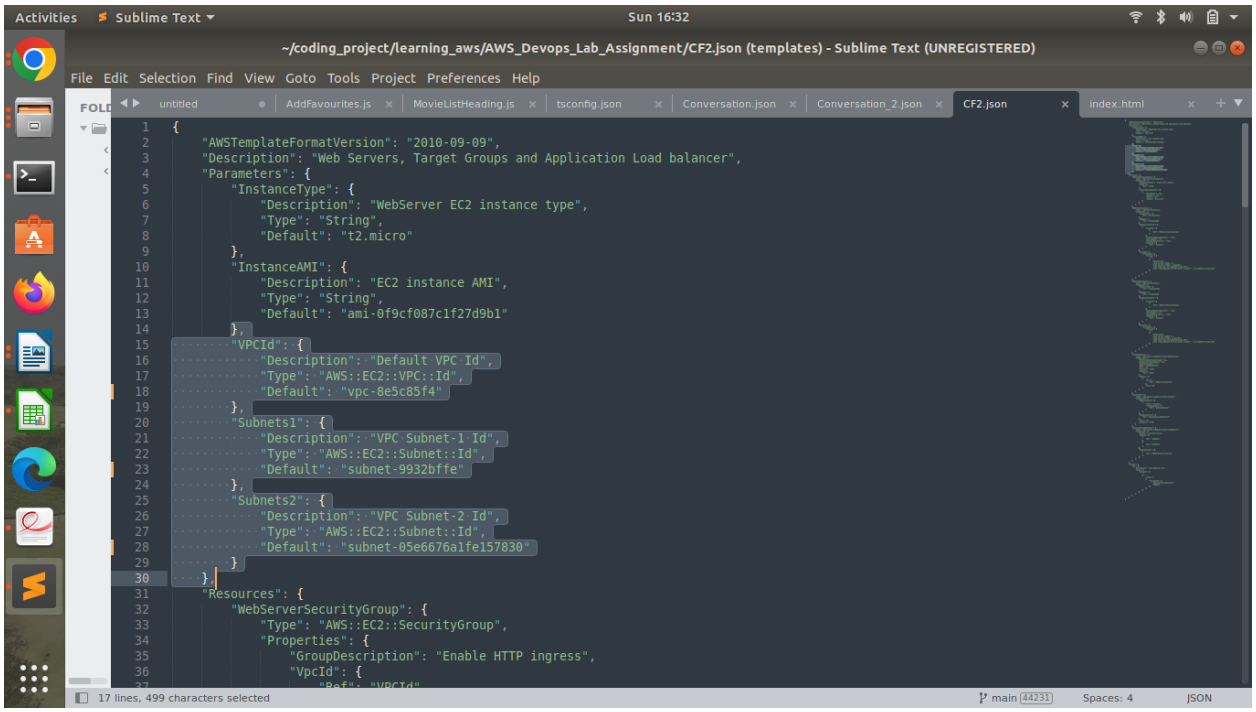
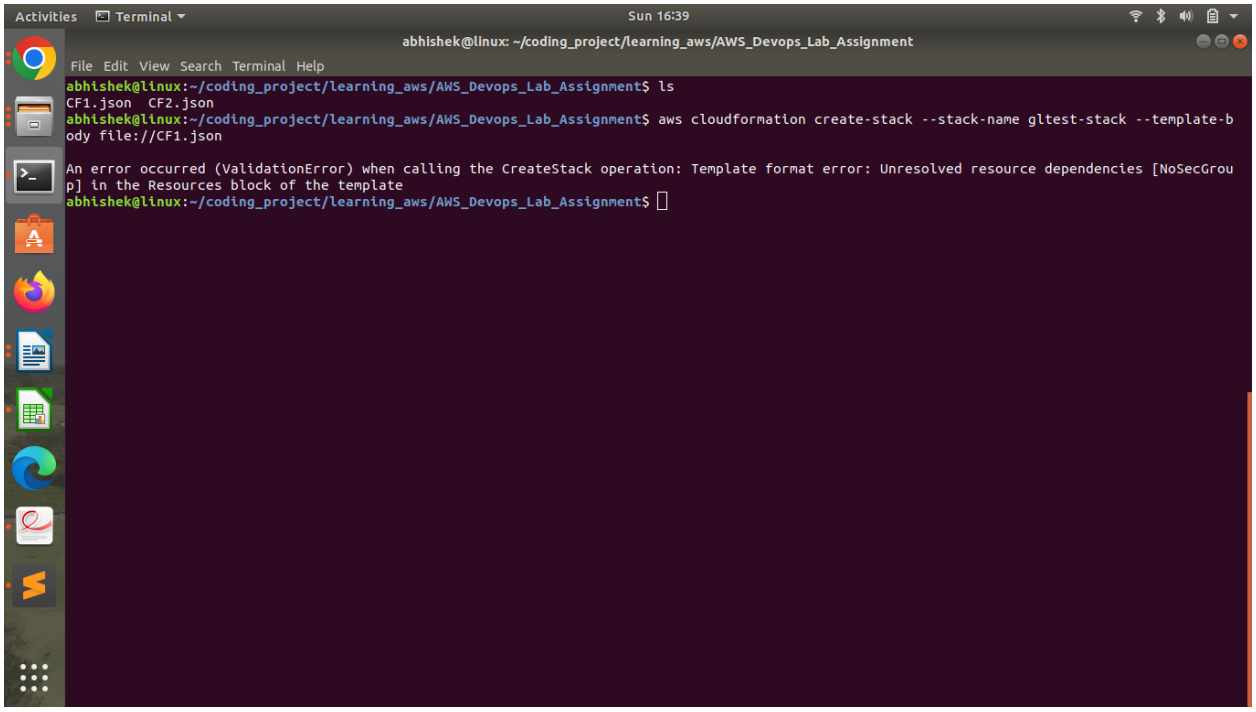
- Open the CF1.json file in your preferred text editor
- Change the values marked below in lines 18,23 and 28, with the values of the default VPC ID, default subnet ID and the ID of the created subnet respectively
- Repeat the above step for the file CF2.json as well i.e. open CF2.json and replace the appropriate values on lines 18,23, and 28.

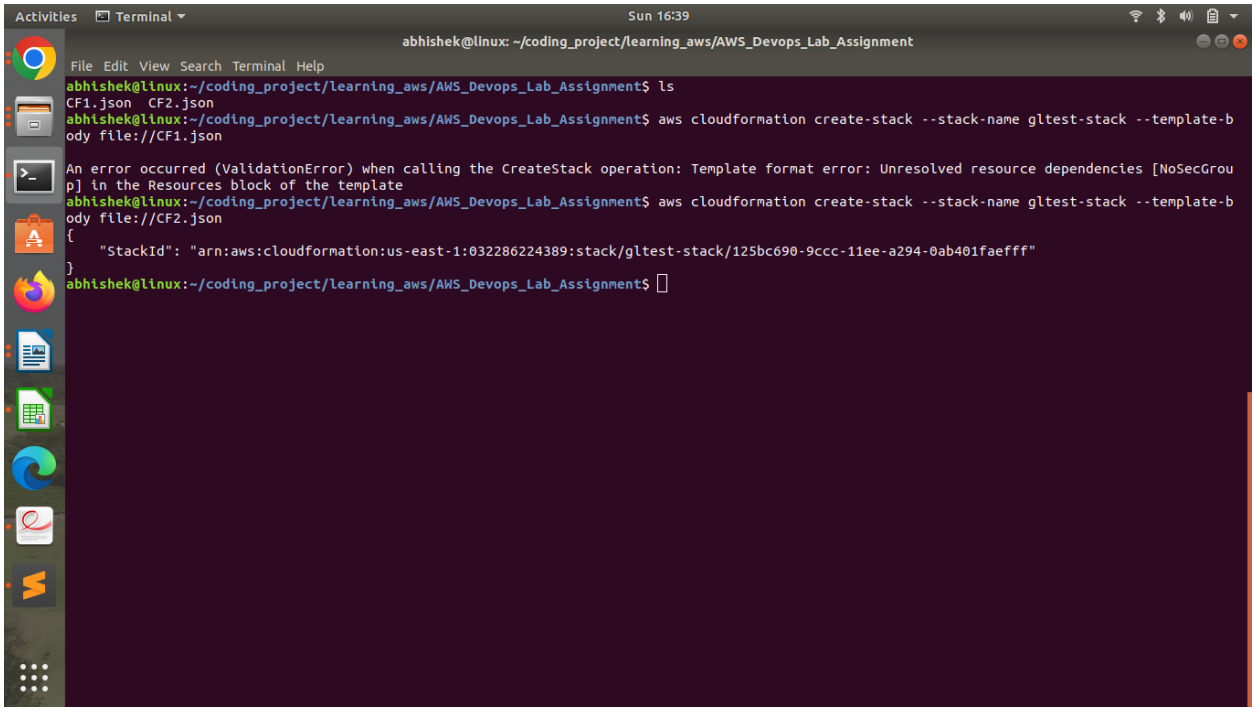




- Save and close the file
- Open your terminal (assuming AWS CLI is already installed and configured)
- Navigate to the folder where the JSONs file are stored
- Enter the following command and press Enter
  aws cloudformation create-stack --stack-name gltest-stack --template-body file://CF1.json



Go back to the terminal and type the command
aws cloudformation create-stack --stack-name gltest-stack --template-body file://CF2.json



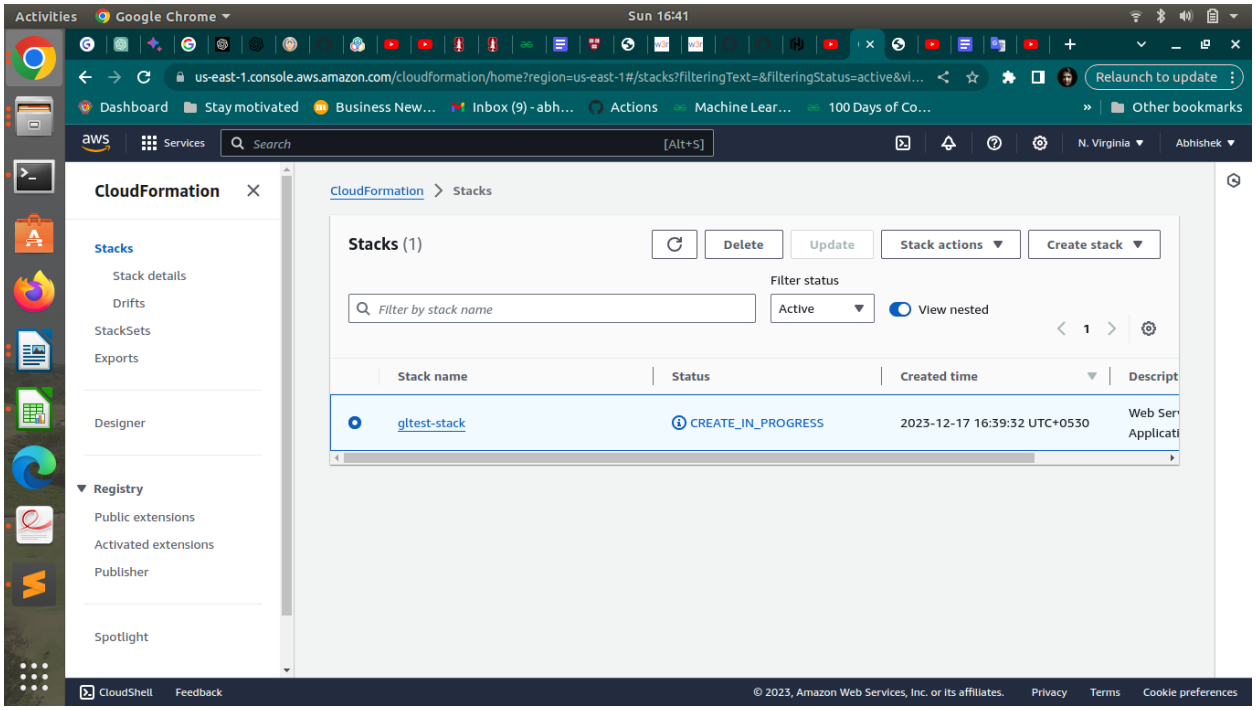
• Go back to the AWS console and navigate to CloudFormation

• Click on the stack and follow the steps of its creation. Wait for a few minutes for stack creation to finish.

• When stack creation is completed, navigate to the Outputs tab.

• Click on the URL value to confirm that Apache was installed and hence the load balancer was created successfully using the CloudFormation Template.

• Navigate back to the CloudFormation console, select the stack and click on Delete to delete the stack.


Activities
Google Chrome
Sun 16:41
us-east-1.console.aws.amazon.com/cloudformation/home?region=us-east-1#/stacks?filteringText=&filteringStatus=active&vi...
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CloudFormation
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CloudFormation > Stacks
Stacks (1)
Delete
Update
Stack actions
Create stack
Filter by stack name
Filter status
Active
View nested
Stack name
Status
Created time
gltest-stack
CREATE_IN_PROGRESS
2023-12-17 16:39:32 UTC+0530
CloudShell
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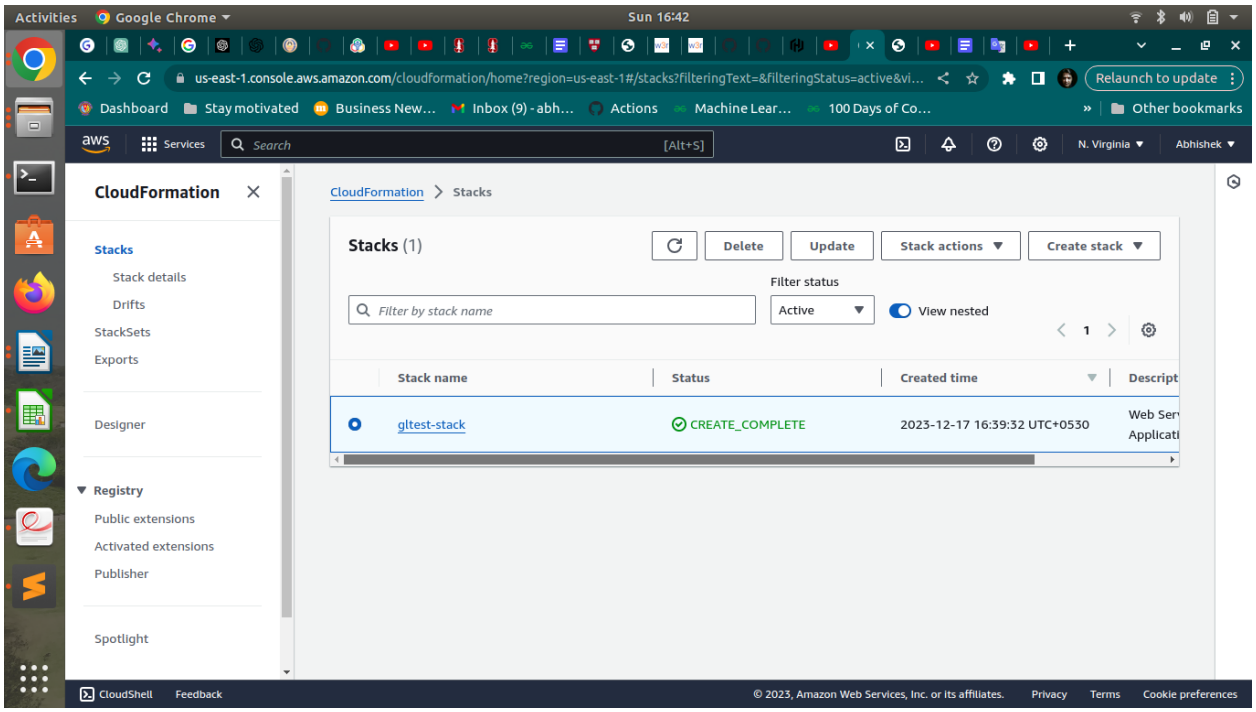
Activities
Google Chrome
Sun 16:42
us-east-1.console.aws.amazon.com/cloudformation/home?region=us-east-1#/stacks?filteringText=&filteringStatus=active&vi...
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Stacks (1)
Delete
Update
Stack actions
Create stack
Filter by stack name
Filter status
Active
View nested
Stack name
Status
Created time
gltest-stack
CREATE_COMPLETE
2023-12-17 16:39:32 UTC+0530
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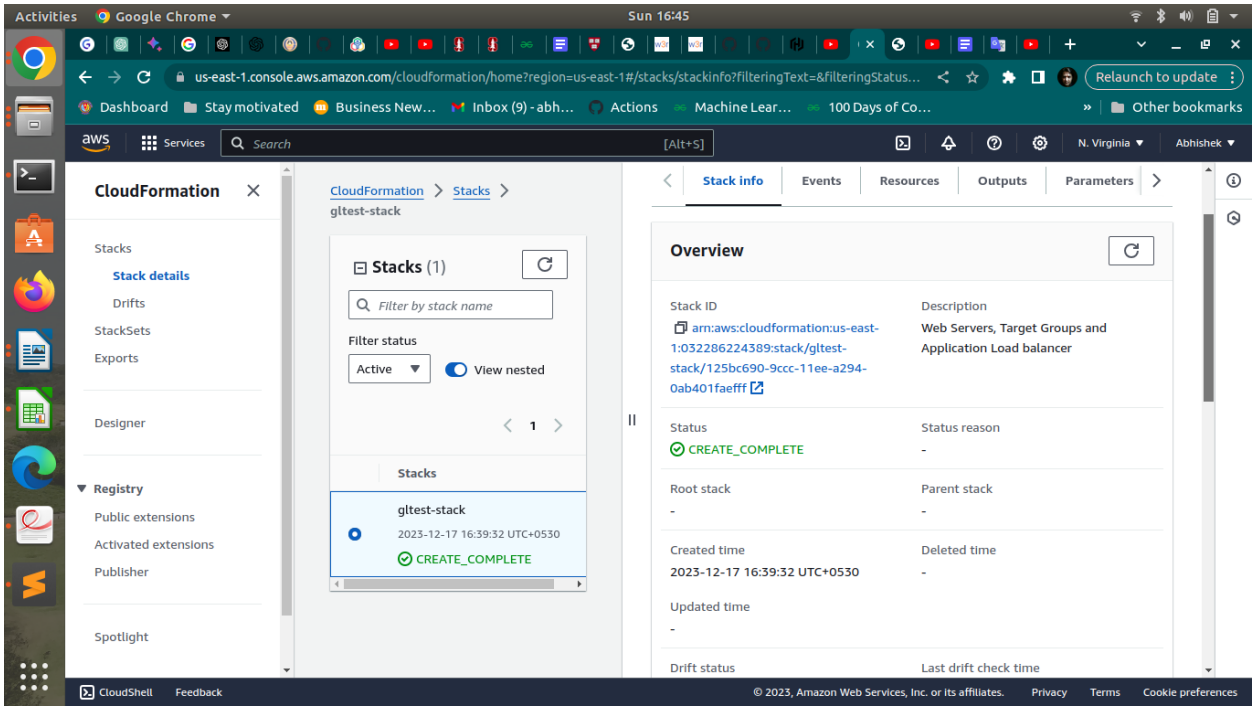
Activities
Google Chrome
Sun 16:45
us-east-1.console.aws.amazon.com/cloudformation/home?region=us-east-1#/stacks/stackinfo?filteringText=&filteringStatus...
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CloudFormation > Stacks >
gltest-stack
Stacks (1)
Filter by stack name
Filter status
Active
View nested
1
Stacks
gltest-stack
2023-12-17 16:39:32 UTC+0530
CREATE_COMPLETE
Stack info
Events
Resources
Outputs
Parameters
Overview
Stack ID
arn:aws:cloudformation:us-east-1:032286224389:stack/gltest-stack/125bc690-9ccc-11ee-a294-0ab401faefff
Description
Web Servers, Target Groups and Application Load balancer
Status
CREATE_COMPLETE
Status reason
-
Root stack
-
Parent stack
-
Created time
2023-12-17 16:39:32 UTC+0530
Deleted time
-
Updated time
-
Drift status
Last drift check time
CloudShell
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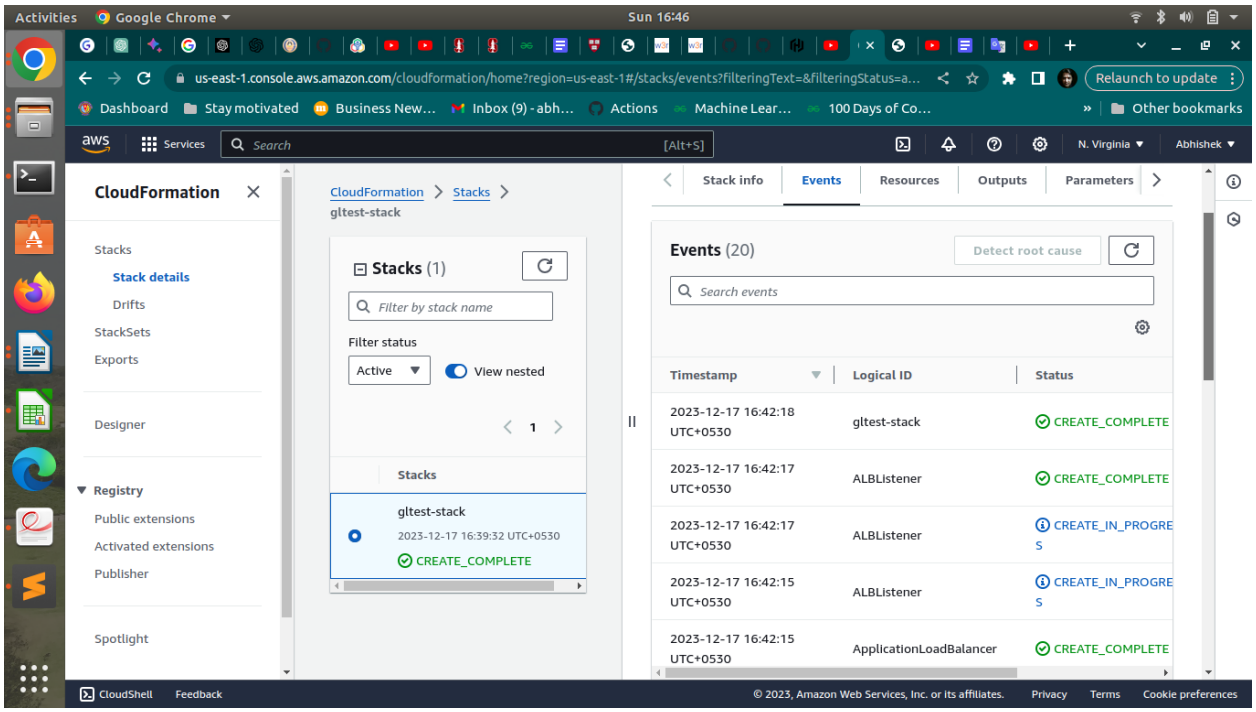
Activities
Google Chrome
Sun 16:46
us-east-1.console.aws.amazon.com/cloudformation/home?region=us-east-1#/stacks/events?filteringText=&filteringStatus=a...
Relaunch to update
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Publisher
Spotlight
CloudFormation > Stacks >
gltest-stack
Stacks (1)
Filter by stack name
Filter status
Active
View nested
1
Stacks
gltest-stack
2023-12-17 16:39:32 UTC+0530
CREATE_COMPLETE
Stack info
Events
Resources
Outputs
Parameters
Events (20)
Detect root cause
Search events
Timestamp
Logical ID
Status
2023-12-17 16:42:18 UTC+0530
gltest-stack
CREATE_COMPLETE
2023-12-17 16:42:17 UTC+0530
ALBListener
CREATE_COMPLETE
2023-12-17 16:42:17 UTC+0530
ALBListener
CREATE_IN_PROGRES
2023-12-17 16:42:15 UTC+0530
ALBListener
CREATE_IN_PROGRES
2023-12-17 16:42:15 UTC+0530
ApplicationLoadBalancer
CREATE_COMPLETE
CloudShell
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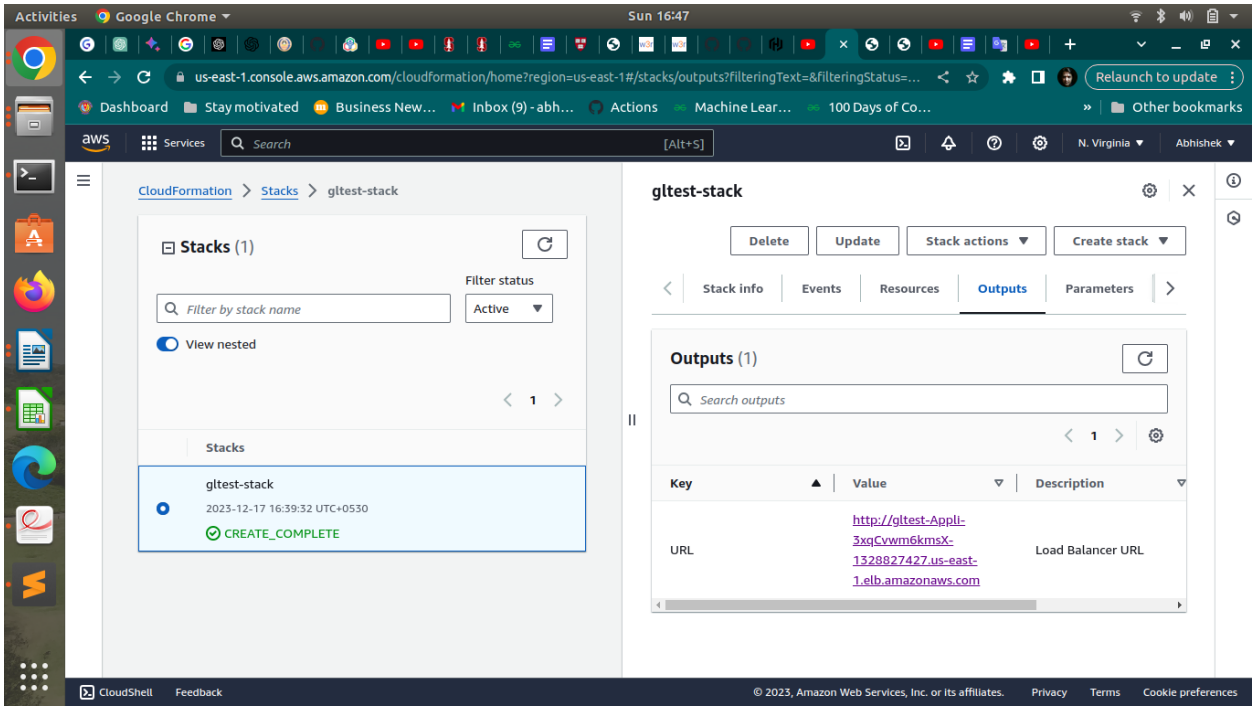
Activities
Google Chrome
Sun 16:47
us-east-1.console.aws.amazon.com/cloudformation/home?region=us-east-1#/stacks/outputs?filteringText=&filteringStatus=...
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CloudFormation
Stacks
gltest-stack
Stacks (1)
Filter status
Filter by stack name
Active
View nested
1
Stacks
gltest-stack
2023-12-17 16:39:32 UTC+0530
CREATE_COMPLETE
gltest-stack
Delete
Update
Stack actions
Create stack
Stack info
Events
Resources
Outputs
Parameters
Outputs (1)
Search outputs
1
Key
Value
Description
URL
http://gltest-Appli-3xqCvwm6kmsX-1328827427.us-east-1.elb.amazonaws.com
Load Balancer URL
CloudShell
Feedback
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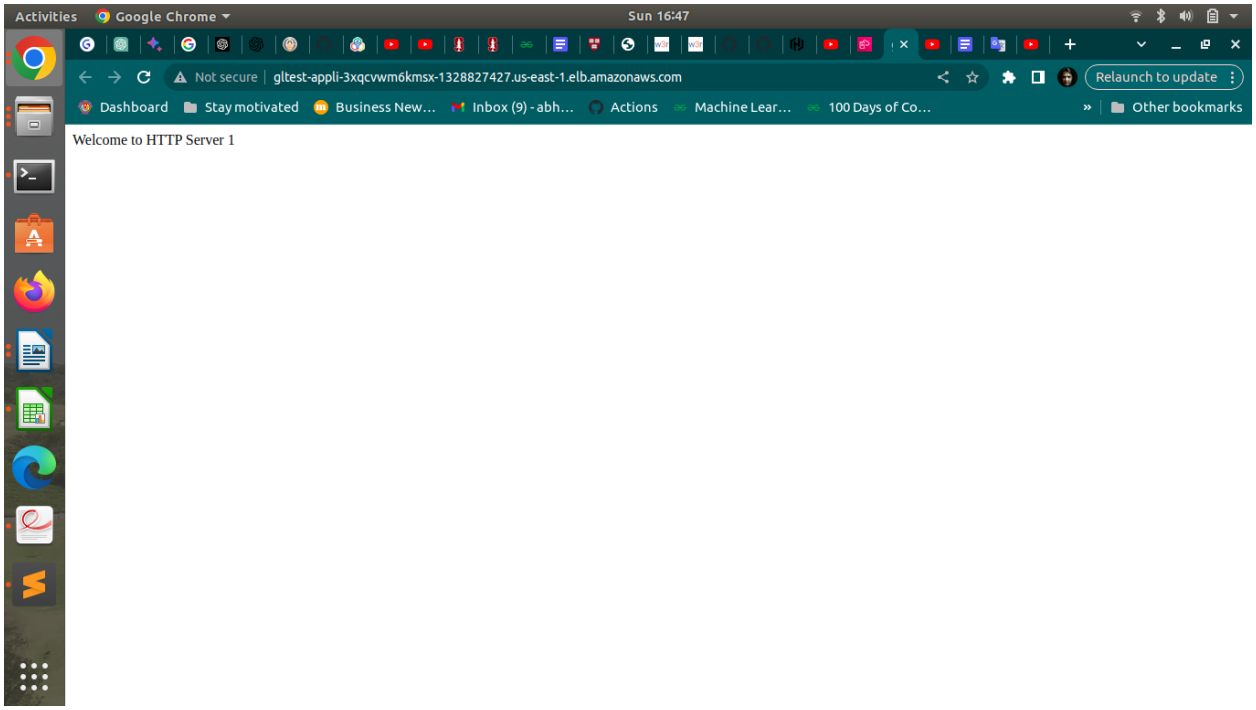
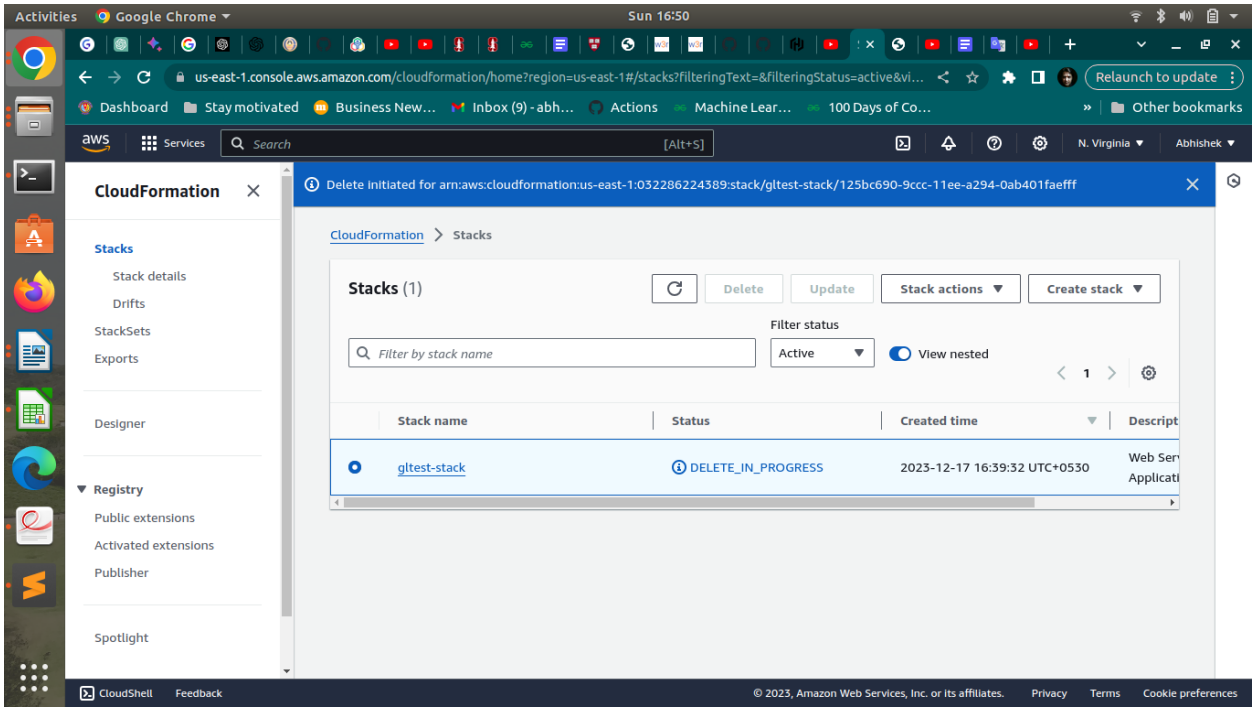

Activities
Google Chrome
Sun 16:47
Not secure | gltest-appli-3xqcvwm6kmsx-1328827427.us-east-1.elb.amazonaws.com
Relaunch to update
Dashboard
Stay motivated
Business New...
Inbox (9) - abh...
Actions
Machine Lear...
100 Days of Co...
Other bookmarks
Welcome to HTTP Server 1


Activities
Google Chrome
Sun 16:50
us-east-1.console.aws.amazon.com/cloudformation/home?region=us-east-1#/stacks?filteringText=&filteringStatus=active&vi...
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Activated extensions
Publisher
Spotlight
Delete initiated for arn:aws:cloudformation:us-east-1:032286224389:stack/gltest-stack/125bc690-9ccc-11ee-a294-0ab401faefff
CloudFormation > Stacks
Stacks (1)
Delete
Update
Stack actions
Create stack
Filter status
Filter by stack name
Active
View nested
Stack name
Status
Created time
gltest-stack
DELETE_IN_PROGRESS
2023-12-17 16:39:32 UTC+0530
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