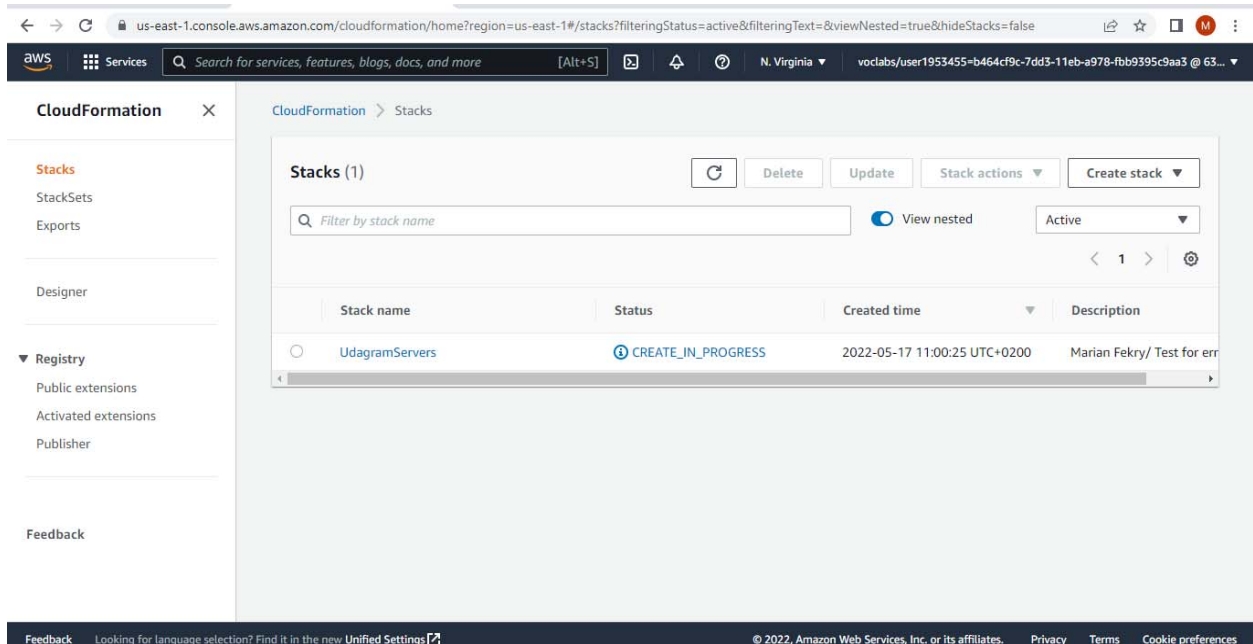


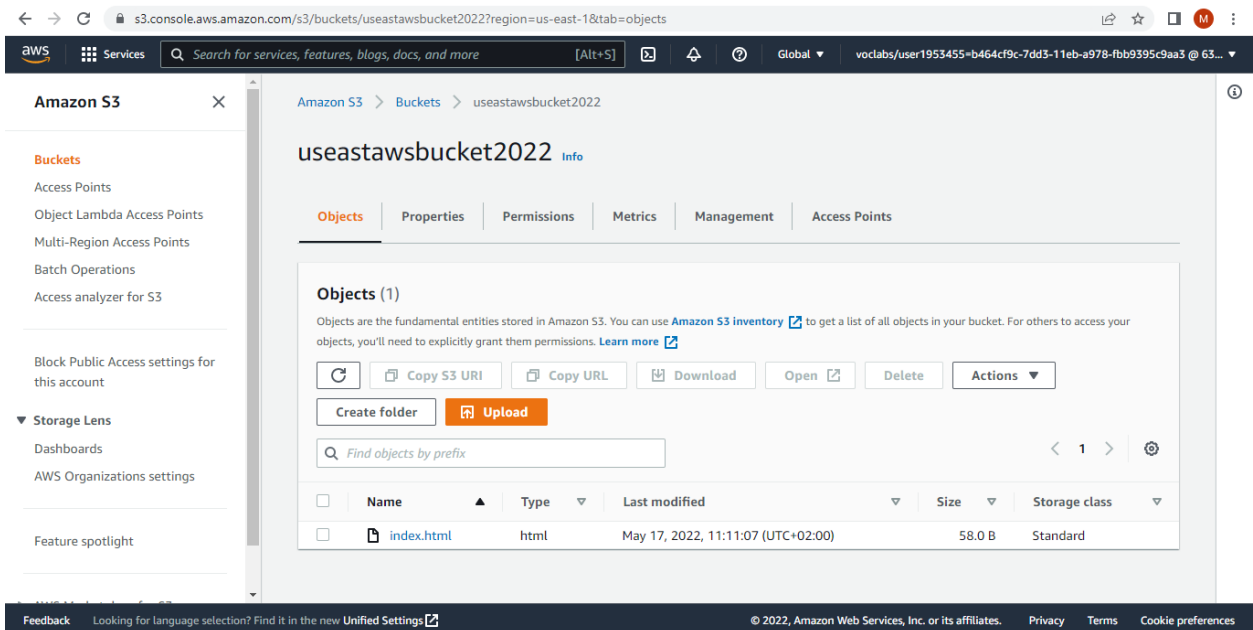
Project 2: Deploy a high-availability web app using CloudFormation

<http://Udagr-WebAp-14NE1SHC3LNPY-153464009.us-east-1.elb.amazonaws.com>

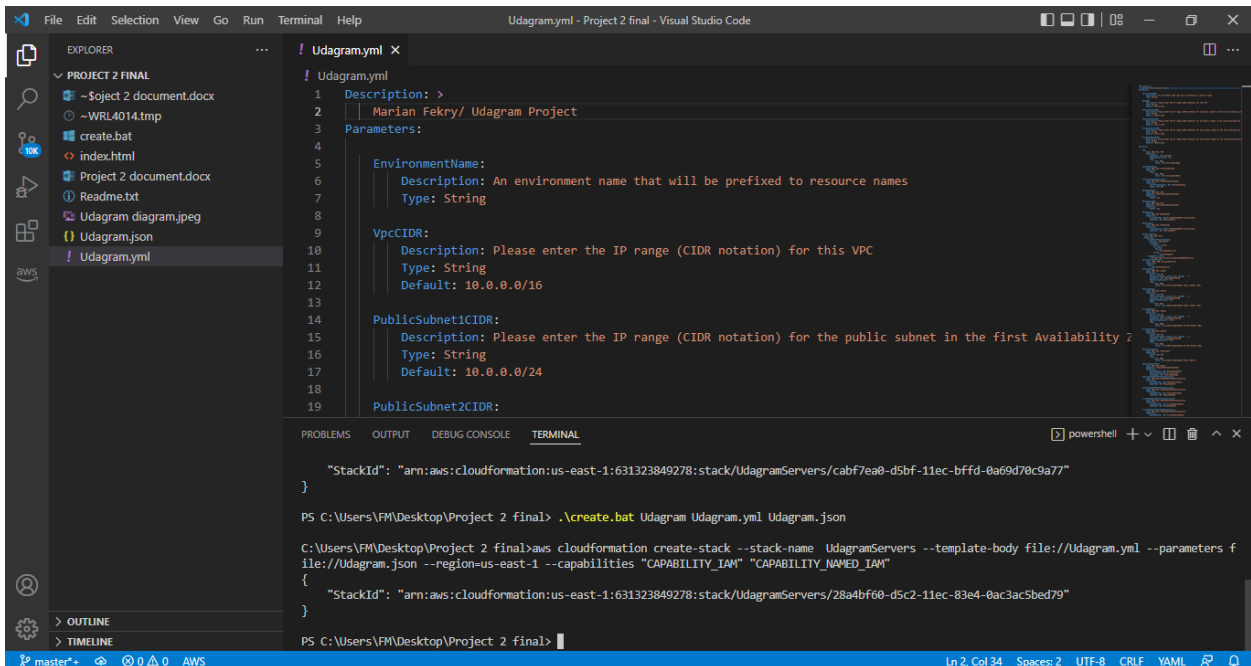
1. Create S3 bucket



2. Upload the index.html file on S3 bucket



3. Create Cloudformation

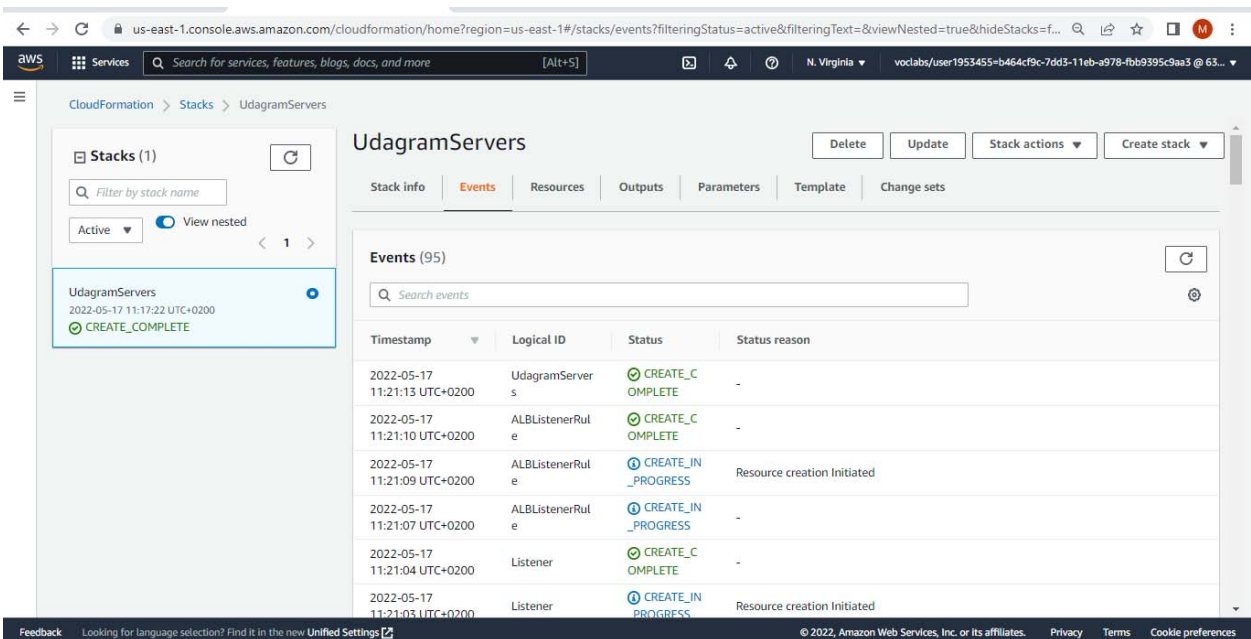


The screenshot shows the Visual Studio Code editor with the 'Udagram.yml' file open. The file contains a CloudFormation template with the following structure:

```
1 Description: >
2 | Marian Fekry/ Udagram Project
3 Parameters:
4
5 EnvironmentName:
6 | Description: An environment name that will be prefixed to resource names
7 | Type: String
8
9 VpcCIDR:
10 | Description: Please enter the IP range (CIDR notation) for this VPC
11 | Type: String
12 | Default: 10.0.0.0/16
13
14 PublicSubnet1CIDR:
15 | Description: Please enter the IP range (CIDR notation) for the public subnet in the first Availability Zone
16 | Type: String
17 | Default: 10.0.0.0/24
18
19 PublicSubnet2CIDR:
```

The terminal window shows the command execution and output:

```
PS C:\Users\FM\Desktop\Project 2 final> .\create.bat Udagram Udagram.yml Udagram.json
C:\Users\FM\Desktop\Project 2 final>aws cloudformation create-stack --stack-name UdagramServers --template-body file://Udagram.yml --parameters file://Udagram.json --region=us-east-1 --capabilities "CAPABILITY_IAM" "CAPABILITY_NAMED_IAM"
{
  "StackId": "arn:aws:cloudformation:us-east-1:631323849278:stack/UdagramServers/cabf7ea0-d5bf-11ec-bffd-0a69d70c9a77"
}
PS C:\Users\FM\Desktop\Project 2 final>
```



The screenshot shows the AWS Management Console for the 'UdagramServers' stack. The 'Events' tab is selected, displaying a table of 95 events. The table includes columns for Timestamp, Logical ID, Status, and Status reason.

Timestamp	Logical ID	Status	Status reason
2022-05-17 11:21:13 UTC+0200	UdagramServers	CREATE_COMPLETE	-
2022-05-17 11:21:10 UTC+0200	ALBListenerRule	CREATE_COMPLETE	-
2022-05-17 11:21:09 UTC+0200	ALBListenerRule	CREATE_IN_PROGRESS	Resource creation Initiated
2022-05-17 11:21:07 UTC+0200	ALBListenerRule	CREATE_IN_PROGRESS	-
2022-05-17 11:21:04 UTC+0200	Listener	CREATE_COMPLETE	-
2022-05-17 11:21:03 UTC+0200	Listener	CREATE_IN_PROGRESS	Resource creation Initiated

4. The output:

The screenshot shows the AWS CloudFormation console for a stack named 'UdagramServers'. The 'Outputs' tab is selected, displaying a table of 10 outputs. The left sidebar shows the stack's status as 'CREATE_COMPLETE'.

Key	Value	Description	Export name
PrivateSubnet1	subnet-09566f232b393b4d5	A reference to the private subnet in the 1st Availability Zone	Udagram-PRI1-SN
PrivateSubnet2	subnet-042a3863418892220	A reference to the private subnet in the 2nd Availability Zone	Udagram-PRI2-SN
PrivateSubnets	subnet-09566f232b393b4d5,subnet-042a3863418892220	A list of the private subnets	Udagram-PRIV-NETS
PublicSubnet1	subnet-04eeb1d5ecb706509	A reference to the public subnet in the 1st Availability Zone	Udagram-PUB1-SN
PublicSubnet2	subnet-03b4f9cdeab82d0d4	A reference to the public subnet in the 2nd Availability Zone	Udagram-PUB2-SN
PublicSubnets	subnet-04eeb1d5ecb706509,subnet-03b4f9cdeab82d0d4	A list of the public subnets	Udagram-PUB-NETS

5. Creating the Autoscaling Loadbalancer

The screenshot shows the AWS Management Console for the 'Udagr-WebAp-14NE1SHC3LNPY' load balancer. The 'Basic Configuration' tab is selected, showing details such as Name, ARN, DNS name, State, and Type.

Load balancer: Udagr-WebAp-14NE1SHC3LNPY

Basic Configuration

Name	Udagr-WebAp-14NE1SHC3LNPY
ARN	arn:aws:elasticloadbalancing:us-east-1:631323849278:loadbalancer/app/Udagr-WebAp-14NE1SHC3LNPY/5362d8412127b119
DNS name	Udagr-WebAp-14NE1SHC3LNPY-153464009.us-east-1.elb.amazonaws.com (A Record)
State	Active
Type	application

6. Targets up and Running

The screenshot shows the AWS Management Console for the target group 'Udagr-WebAp-B04YTR8G9E65'. The 'Details' section displays the following information:

Target type	Protocol : Port	Protocol version	VPC
Instance	HTTP: 80	HTTP1	vpc-0907ba28f46b95fbb

IP address type	Load balancer
IPv4	Udagr-WebAp-14NE1SHC3LNPY

Total targets	Healthy	Unhealthy	Unused	Initial	Draining
4	4	0	0	0	0

The 'Registered targets (4)' table shows the following instances:

Instance ID	Name	Port	Zone	Health status	Health status details
i-02d60d39d65d2d608		80	us-east-1b	healthy	
i-051224aa3b1e35eb1		80	us-east-1a	healthy	
i-06493be289d4cb014		80	us-east-1b	healthy	

7. Open the URL

The screenshot shows a web browser with the URL `udagr-webap-14ne1shc3lnpy-153464009.us-east-1.elb.amazonaws.com`. The page content displays the message: "It works! Udagram, Udacity Marian Fekry".

The screenshot shows a Windows taskbar with the system clock displaying 11:30 AM on 5/17/2022. The taskbar also includes the search bar and various application icons.

