

RA2011028010061

Nikita Dhona

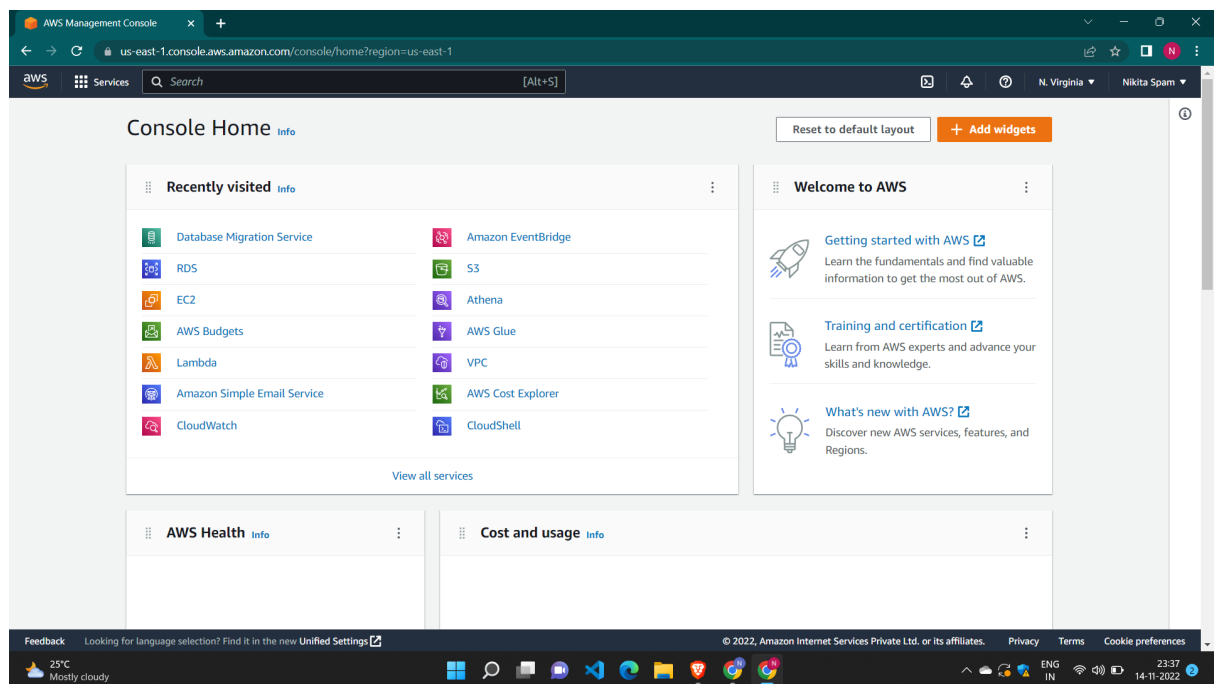
EXPERIMENT- 9

CONFIGURE FAILOVER ROUTING WITH AMAZON ROUTE 53

AIM: To configure failover routing with Amazon Route 53.

PROCEDURE:

1. Firstly, open the AWS console homepage on browser (<https://aws.amazon.com/console/>).



1. Create a Public webserver in region 1.

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

Name and tags

Name

server1

Add additional tags

Application and OS Images (Amazon Machine Image)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs. If you don't see what you are looking for below.

Search our full catalog including 1000s of application and OS images

Quick Start

Amazon Linux

aws

macOS

Mac

Ubuntu

ubuntu

Windows

Microsoft

Red Hat

Red Hat

S

Browse more AMIs

Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Amazon Linux 2 AMI (HVM) - Kernel 5.10, SSD Volume Type

Free tier eligible

ami-0e6329e222e662a52 (64-bit x86) / ami-0b059b23a7ac50242 (64-bit ARM)

Virtualization: hvm ENA enabled: true Root device type: ebs

Description

Amazon Linux 2 Kernel 5.10 AMI 2.0.20221004.0 x86_64 HVM gp2

Architecture

AMI ID

Summary

Number of instances

1

Software Image (AMI)

Amazon Linux 2 Kernel 5.10 AMI...read more

ami-0e6329e222e662a52

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 8 GiB

Free tier

Free tier in your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 30 GiB of EBS storage, 2 million I/Os, 1 GiB of snapshots, and 100 GB of bandwidth to the Internet.

Cancel

Launch instance

Services

Search

[Alt+S]

Mumbai

practiser @ 9793-5455-9347

Instance type

Instance type

t2.micro

Family: t2 1 vCPU 1 GiB Memory

On-Demand Linux pricing: 0.0124 USD per Hour

On-Demand Windows pricing: 0.0117 USD per Hour

Free tier eligible

Compare instance types

Key pair (login)

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - required

ad1543

Create new key pair

Network settings

VPC - required

vpc-0f5e6ca3b5f734813 (default)

172.31.0.0/16

Subnet

subnet-0d666856a8d55e15

VPC: vpc-0f5e6ca3b5f734813 Owner: 979394539947 Availability Zone: ap-south-1b

IP addresses available: 4091 CIDR: 172.31.0.0/20

Create new subnet

Auto-assign public IP

Enable

Firewall (security groups)

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

Create security group

Select existing security group

Summary

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Amazon Linux 2 Kernel 5.10 AMI...read more

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Cancel

Launch instance

Feedback

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Enable

Firewall (security groups) [Info](#)
A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

[Create security group](#) [Select existing security group](#)

Security group name - required
webservers

Description - required [Info](#)
launch-wizard-7 created 2022-11-08T09:04:56.116Z

Inbound security groups rules

▼ Security group rule 1 (TCP, 22, 14.96.13.220/32) [Remove](#)

Type [Info](#) Protocol [Info](#) Port range [Info](#)
ssh TCP 22

Source type [Info](#) Name [Info](#) Description - optional [Info](#)
My IP Add CIDR, prefix list or security group e.g. SSH for admin desktop
14.96.13.220/32

▼ Security group rule 2 (TCP, 80, 0.0.0.0/0) [Remove](#)

Type [Info](#) Protocol [Info](#) Port range [Info](#)
HTTP TCP 80

Source type [Info](#) Source [Info](#) Description - optional [Info](#)
Custom Add CIDR, prefix list or security group e.g. SSH for admin desktop
0.0.0.0/0

Summary

Number of instances [Info](#)
1

Software Image (AMI) [Info](#)
Amazon Linux 2 Kernel 5.10 AML...read more
ami-0e6329a222e662a52

Virtual server type (instance type) [Info](#)
t2.micro

Firewall (security group) [Info](#)
New security group

Storage (volumes) [Info](#)
1 volume(s) - 8 GiB

[Cancel](#) [Launch instance](#)

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Specify CPU options
The selected instance type does not support CPU options.

Metadata accessible [Info](#)
Select

Metadata version [Info](#)
Select

Metadata response hop limit [Info](#)
Select

Allow tags in metadata [Info](#)
Select

User data [Info](#)
#!/bin/bash
yum install httpd -y
service httpd start
chkconfig httpd on
echo "This is ap-west-1 AWS region" > /var/www/html/index.html

☐ User data has already been base64 encoded

Summary

Number of instances [Info](#)
1

Software Image (AMI) [Info](#)
Amazon Linux 2 Kernel 5.10 AML...read more
ami-0e6329a222e662a52

Virtual server type (instance type) [Info](#)
t2.micro

Firewall (security group) [Info](#)
New security group

Storage (volumes) [Info](#)
1 volume(s) - 8 GiB

[Cancel](#) [Launch instance](#)

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2. Create a public webserver in region 2.
3. Create a Route53 public hosted zone (e.g.: Yourdomain.com).
4. Create 2 health checks for both the webserver.

aws Services Search [Alt+S] Global prdUser @ 9793-9453-9947

What to monitor

- ☒ Endpoint
- ☐ Status of other health checks (calculated health check)
- ☐ State of CloudWatch alarm

Monitor an endpoint

Multiple Route 53 health checkers will try to establish a TCP connection with the following resource to determine whether it's healthy. [Learn more](#)

Specify endpoint by ☒ IP address ☐ Domain name

Protocol HTTP ⓘ

IP address * 3.110.119.69 ⓘ

Host name www.example.com ⓘ

Port * 80 ⓘ

Path /index.html ⓘ

Advanced configuration

URL http://3.110.119.69:80/index.html ⓘ

Health check type Basic - no additional options selected ([View Pricing](#))

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Create health check

Step 1: Configure health check

Step 2: Get notified when health check fails

Configure health check ⓘ

Route 53 health checks let you track the health status of your resources, such as web servers or mail servers, and take action when an outage occurs.

Name webserver-ap-south-1 ⓘ

What to monitor ☒ Endpoint ⓘ

- ☐ Status of other health checks (calculated health check)
- ☐ State of CloudWatch alarm

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Specify endpoint by ☒ IP address ☐ Domain name

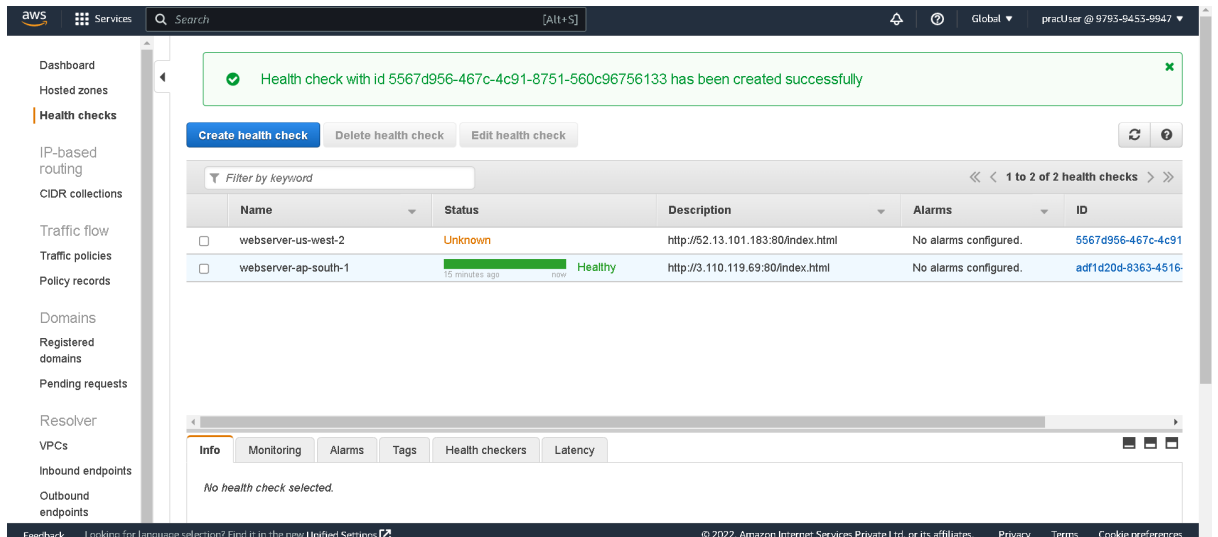
Protocol HTTP ⓘ

IP address * 3.110.119.69 ⓘ

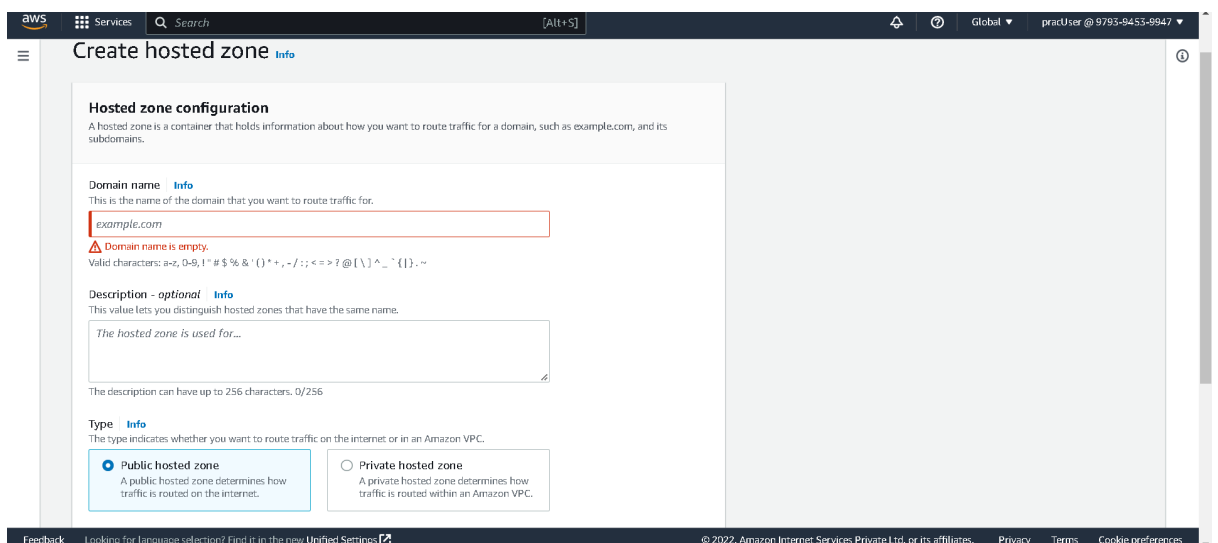
Host name www.example.com ⓘ

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5. Create a subdomain A record test.yourdomain.com and configure it as failover routing (Primary).



6. Create another same subdomain A record test.yourdomain.com and configure it as failover routing (secondary).



7. Test the connection by hitting http://test.yourdomain.com.
8. Login to primary webserver in region 1 and stop httpd service.
9. Wait for TTL to expire and see If you get redirected to another web server in region 2.

RESULT:

A failover routing with Amazon Route 53 was configured successfully.