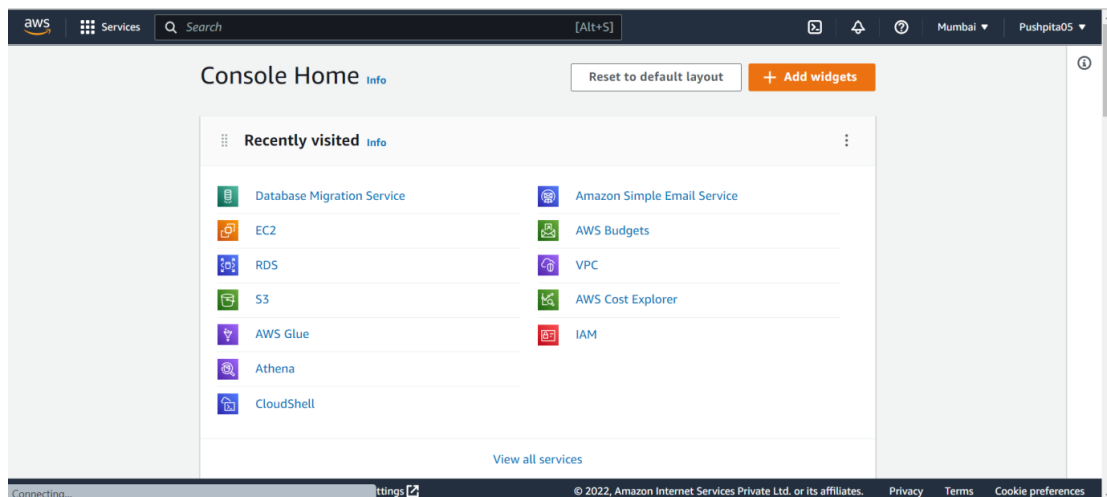


Experiment 9–Configure Failover Routing with Amazon Route 53

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.

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*

Description - *required* [info](#)

Inbound security group rules

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

| Type | Protocol | Port range |
|------|----------|------------|
| ssh | TCP | 22 |

Source type [info](#)

Name [info](#)

Description - optional [info](#)

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

| Type | Protocol | Port range |
|------|----------|------------|
| HTTP | TCP | 80 |

Source type [info](#)

Source [info](#)

Description - optional [info](#)

Summary

Number of instances [info](#)

Software Image (AMI) [info](#)
 Amazon Linux 2 Kernel 5.10 AML... [read more](#)
 ami-06b3292226626252

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

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

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

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 GiB of bandwidth to the internet.

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

Metadata accessible [info](#)

Metadata version [info](#)

Metadata response hop limit [info](#)

Allow tags in metadata [info](#)

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](#)

Software Image (AMI) [info](#)
 Amazon Linux 2 Kernel 5.10 AML... [read more](#)
 ami-06b3292226626252

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

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

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

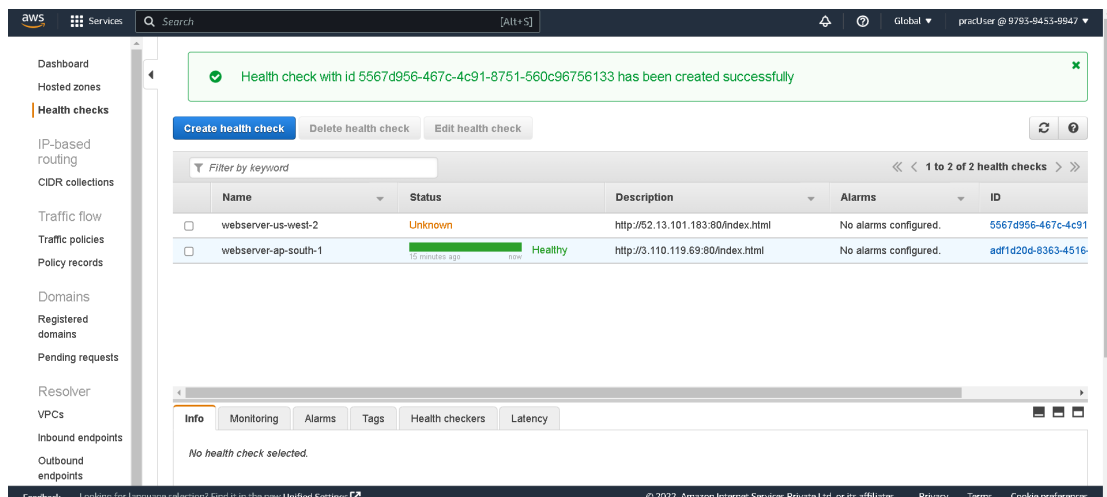
Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 30 GiB of EBS storage, 2 million I/Os, 1 GiB of snapshots, and 100 GiB of bandwidth to the internet.

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.

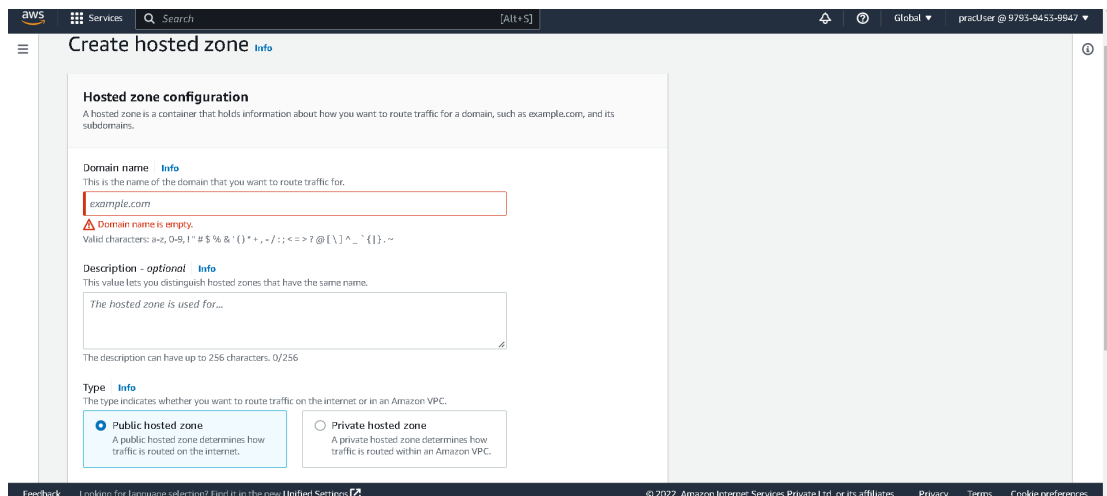
This screenshot shows the 'Monitor an endpoint' configuration page in the AWS Route 53 console. The page is titled 'Monitor an endpoint' and includes a sub-header 'Specify endpoint by' with radio buttons for 'IP address' (selected) and 'Domain name'. Below this, there are input fields for 'Protocol' (HTTP), 'IP address' (3.110.119.69), 'Host name' (www.example.com), 'Port' (80), and 'Path' (/index.html). A section for 'Advanced configuration' is partially visible. At the bottom, the 'URL' is displayed as 'http://3.110.119.69:80/index.html' and the 'Health check type' is set to 'Basic - no additional options selected'.

This screenshot shows the 'Create health check' page in the AWS Route 53 console, specifically 'Step 1: Configure health check'. The page has a sub-header 'Configure health check' and a description: '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.' The 'Name' field is set to 'webserver-ap-south-1'. Under 'What to monitor', the 'Endpoint' radio button is selected. The 'Monitor an endpoint' section is visible, showing the 'Specify endpoint by' options (IP address selected) and the input fields for 'Protocol' (HTTP), 'IP address' (3.110.119.69), and 'Host name' (www.example.com).

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.