Experiment : 9

Title : Configure Failover Routing with Amazon Route 53

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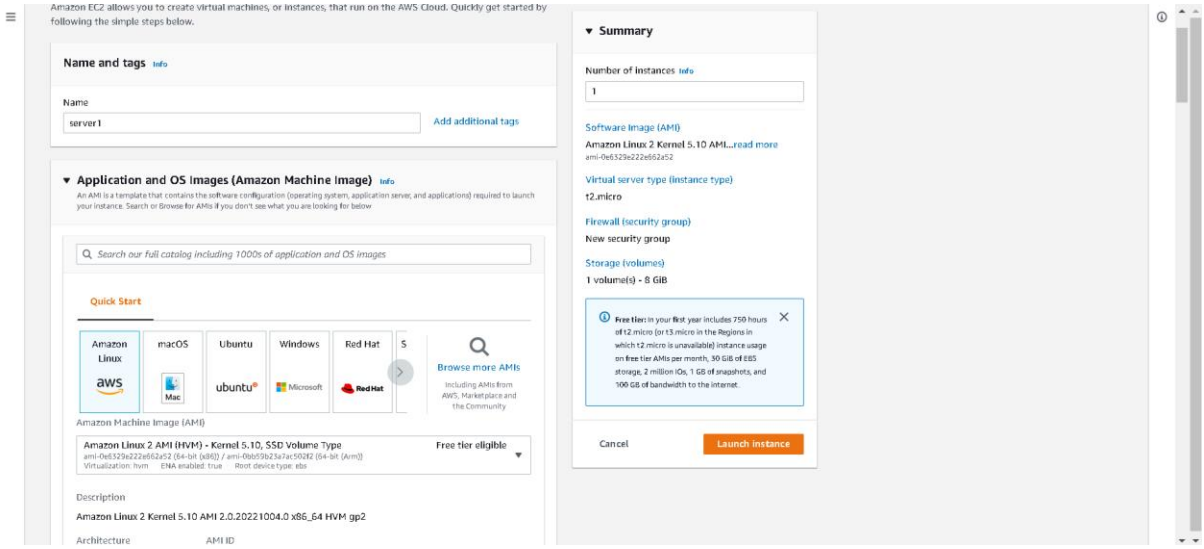
Aim : Configure DNS failover routing policy for Webservers across AWS Regions.

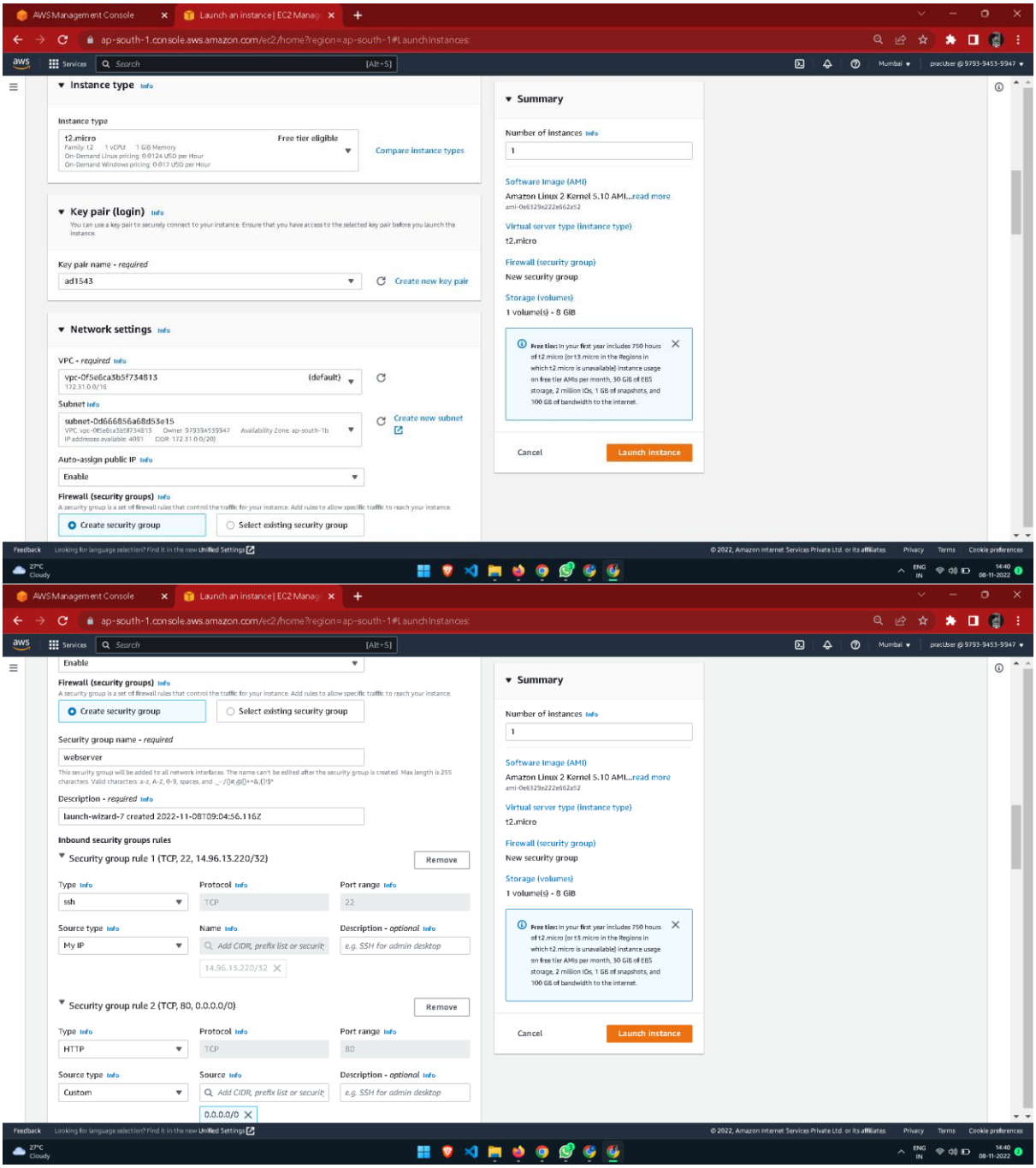
Pre-requisites : AWS Console, Amazon Route 53, Amazon EC2.

Procedure :

Steps:

1. Create a Public webserver in region 1.




AWS Management Console
Launch an instance | EC2 Manag
ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#LaunchInstances:
Services
Search
[Alt+S]
Mumbai
Instance type Info
Instance type
t2.micro
Free tier eligible
Family: t2 1 vCPU 1 GiB Memory
On-Demand Linux pricing: 0.0124 USD per Hour
On-Demand Windows pricing: 0.017 USD per Hour
Compare instance types
Key pair (login) Info
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 Info
VPC - required Info
vpc-0f5e6ca3b5f734813
(default)
172.31.0.0/16
Subnet Info
subnet-0d666856a68d53e15
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 Info
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
Summary
Number of instances Info
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: 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 IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.
Cancel
Launch instance
Feedback
Looking for language selection? Find it in the new Unified Settings
© 2022, Amazon Internet Services Private Ltd. or its affiliates.
Privacy
Terms
Cookie preferences
27°C
Cloudy
ENG
IN
14:40
08-11-2022

AWS Management Console
Launch an instance | EC2 Manag
ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#LaunchInstances:
Services
Search
[Alt+S]
Mumbai
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
webserver
This security group will be added to all network interfaces. The name can't be edited after the security group is created. Max length is 255 characters. Valid characters: a-z, A-Z, 0-9, spaces, and ._-:/()#,@[]+=&;{}!$*
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
ssh
Protocol Info
TCP
Port range Info
22
Source type Info
My IP
Name Info
Add CIDR, prefix list or securit
Description - optional Info
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
HTTP
Protocol Info
TCP
Port range Info
80
Source type Info
Custom
Source Info
Add CIDR, prefix list or securit
Description - optional Info
e.g. SSH for admin desktop
0.0.0.0/0
Summary
Number of instances Info
1
Software Image (AMI)
Amazon Linux 2 Kernel 5.10 AMI...read more
ami-0e6329e222e662a52
Virtual server type (instance type)
t2.micro
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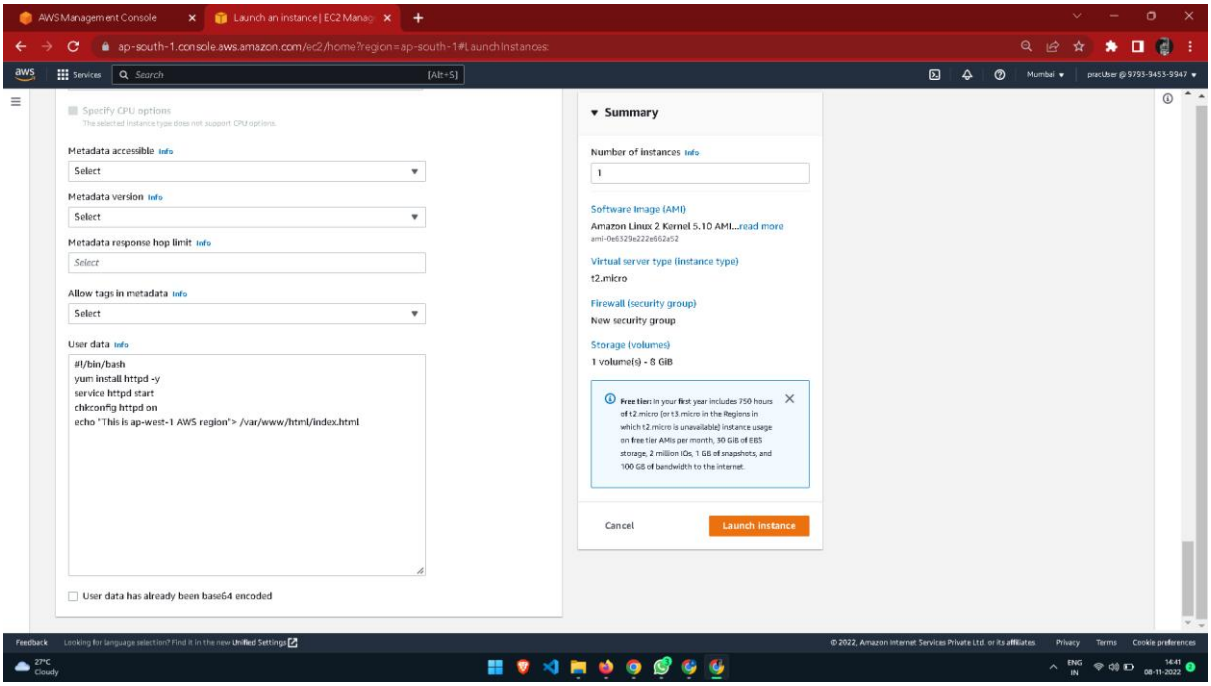
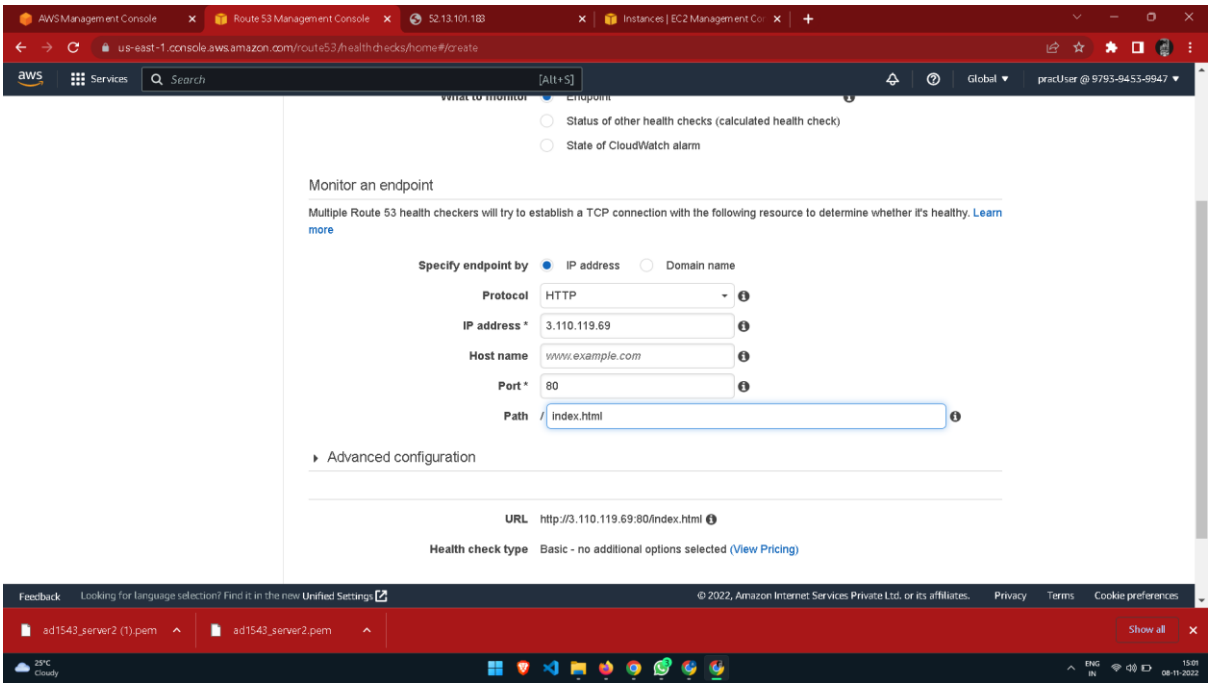
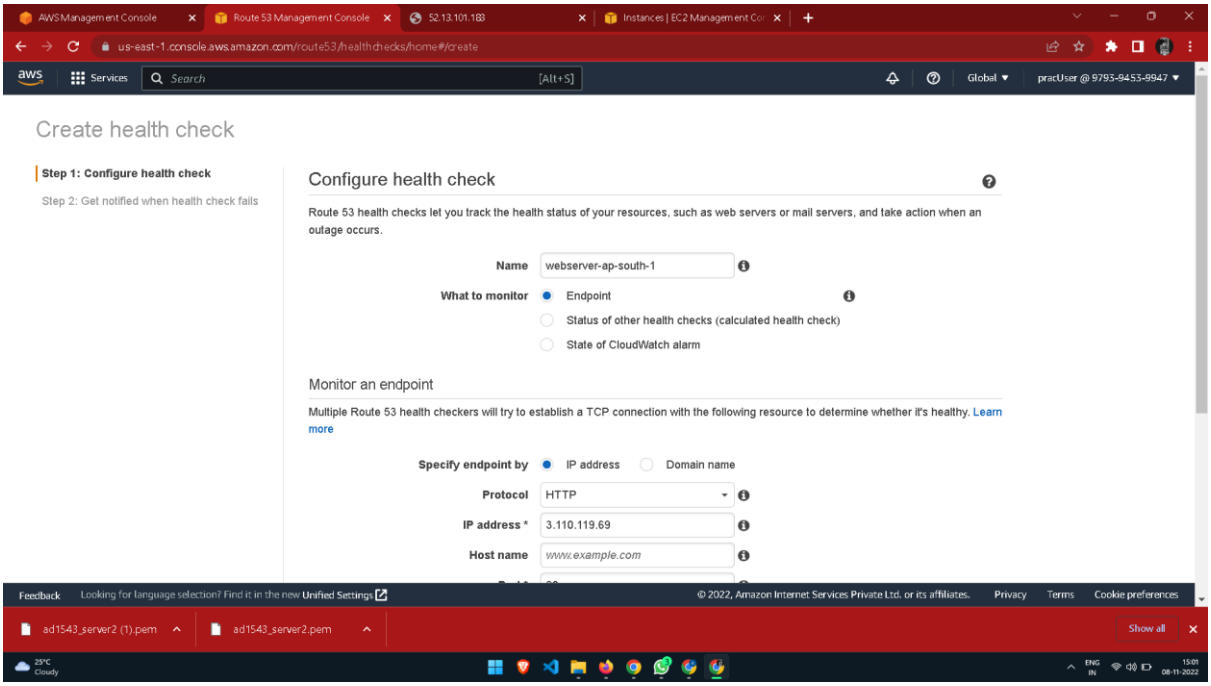
14:40
08-11-2022

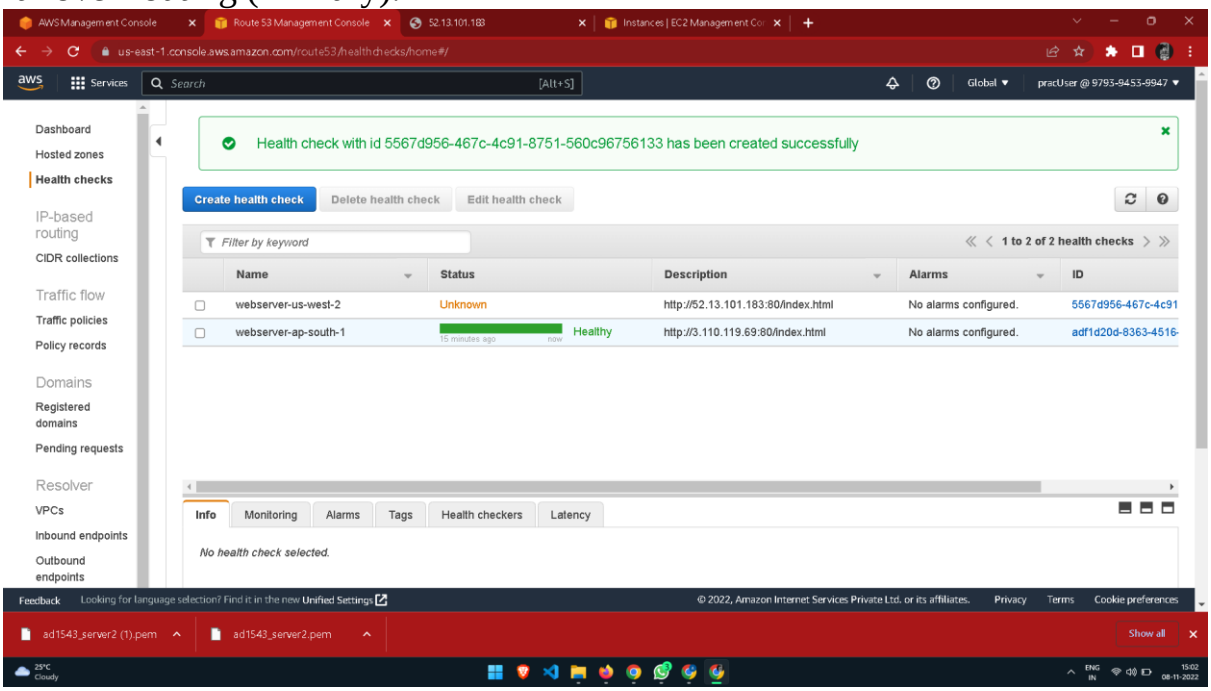


2. Create a public webserver in region 2.
3. Create a Route53 public hosted zone (e.g: Yourdomain.com).
4. Create 2 health checks for both the webservers.

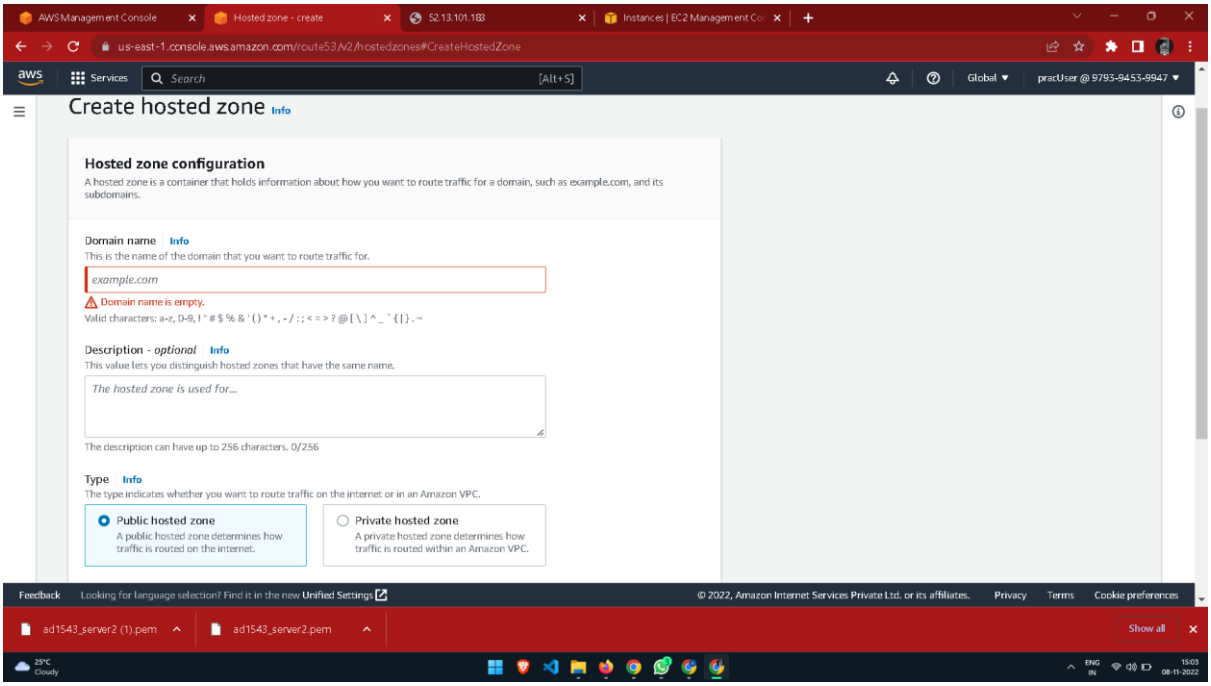




5. Create a subdomain A record test.yourdomain.com and configure it as failover routing (Primary).



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:

Hence, we have successfully configure DNS failover routing policy for Webservers across AWS Regions.