Amazon Route 53

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Amazon Route 53 is a highly available and scalable cloud **Domain Name System(DNS)** web service. It is designed to give developers and businesses an extremely reliable and cost effective way to route end users to Internet applications by translating names like www.example.com into the numeric IP addresses like 192.0.2.1 that computers use to connect to each other. Amazon Route 53 is fully compliant with IPv6 as well.

Amazon Route 53 effectively connects user requests to infrastructure running in AWS – such as Amazon EC2 instances, Elastic Load Balancing load balancers, or Amazon S3 buckets – and can also be used to route users to infrastructure outside of AWS.

Benefits

Amazon Route 53 Traffic Flow makes it easy for you to manage traffic globally through a variety of routing types, including Latency Based Routing, Geo DNS, Geoproximity, and Weighted Round Robin—all of which can be combined with DNS

Failover in order to enable a variety of low-latency, fault-tolerant architectures. Amazon Route 53 also offers Domain Name Registration – you can purchase and manage domain names such as example.com and Amazon Route 53 will automatically configure DNS settings for your domains.

Features

- Traffic Flow
- Latency Based Routing
- Geo DNS
- Private DNS for Amazon VPC
- DNS Failover
- Health Checks and Monitoring
- Domain Registration

Features

- ❖CloudFront Zone Apex Support
- ❖S3 Zone Apex Support
- ❖Amazon ELB Integration
- ❖Management Console
- ❖Weighted Round Robin

Service High Lights

- **Highly Available and Reliable:** Amazon Route 53 is built using AWS's highly available and reliable infrastructure. The distributed nature of our DNS servers helps ensure a consistent ability to route your end users to your application.
- **Scalable**: Route 53 is designed to automatically scale to handle very large query volumes without any intervention from you.
- **Designed for use with other Amazon Web Services:** Amazon Route 53 is designed to work well with other AWS features and offerings.
- **Simple:** With self-service sign-up, Amazon Route 53 can start to answer your DNS queries within minutes.
- **Fast:**Amazon Route 53 Traffic Flow lets you further improve your customers' experience by running your application in multiple locations around the world and using traffic policies to ensure your end users are routed to the closest healthy endpoint for your application.

Service High Lights

- **Cost-Effective:**Amazon Route 53 passes on the benefits of AWS's scale to you. You pay only for the resources you use, such as the number of queries that the service answers for each of your domains, hosted zones for managing domains through the service, and optional features such as traffic policies and health checks, all at a low cost and without minimum usage commitments or any up-front fees.
- **Secure:** By integrating Amazon Route 53 with AWS Identity and Access Management (IAM), you can grant unique credentials and manage permissions for every user within your AWS account and specify who has access to which parts of the Amazon Route 53 service.
- **Flexible:** Amazon Route 53 Traffic Flow routes traffic based on multiple criteria, such as endpoint health, geographic location, and latency. You can configure multiple traffic policies and decide which policies are active at any given time

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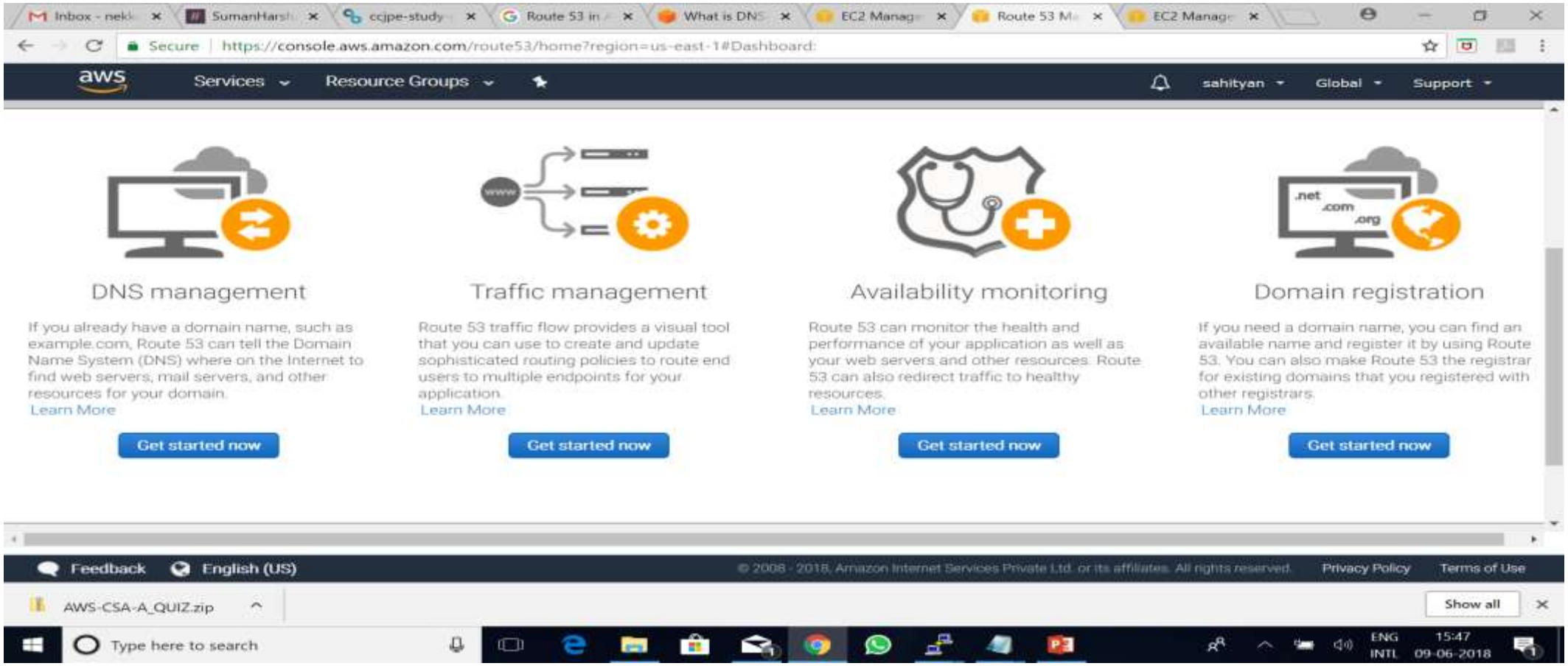
LAB

1) Create EC2 instance with load balancer to launch application.
2) Purchase domain for registering DNS to the application

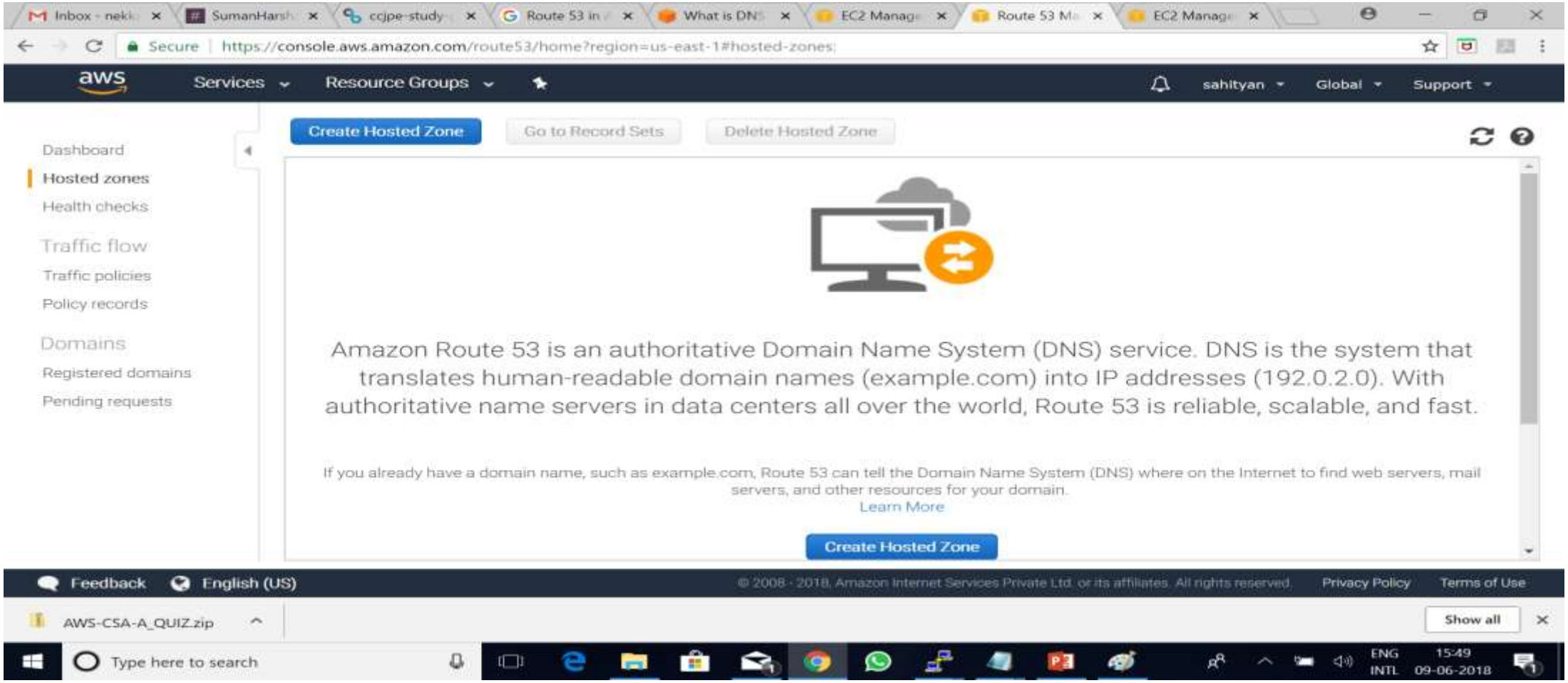
   Example : Godaddy to purchase
2) Create a Hosted Zone .
3) Create a Record set.
4) Copy your Aws Domains in Domain which you have purchased
5) Finally verify the application with domain name

Step 1: Aws-→ Services-→Route 53



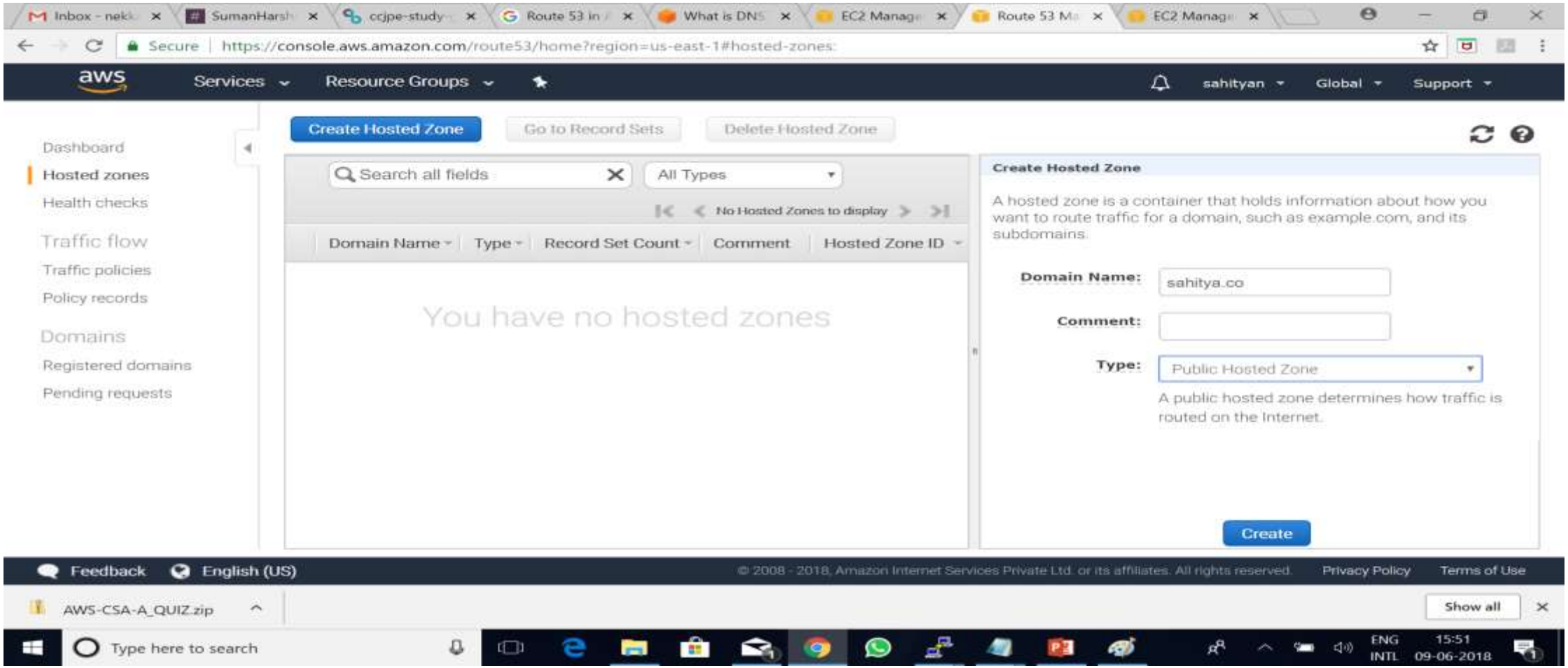
Click on “Get started now” in DNS management

Step 2: Create a hosted Zone



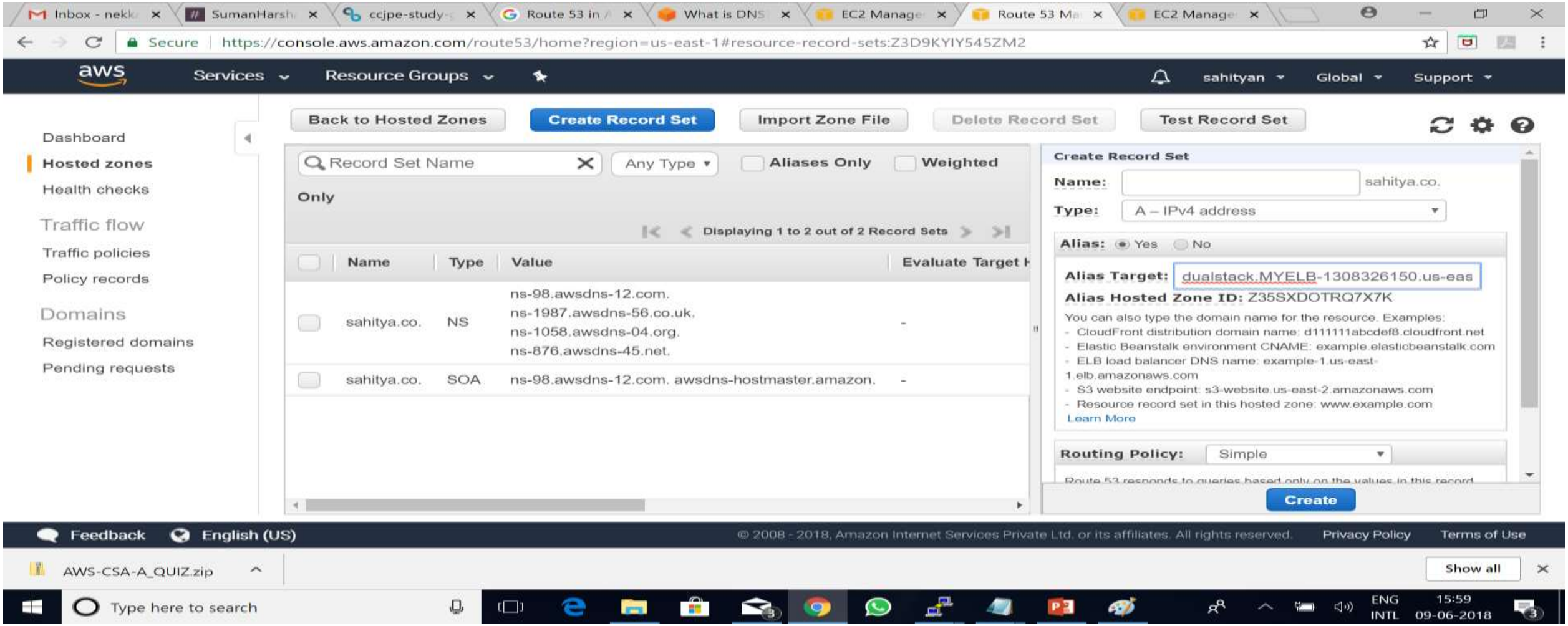
Click on “Created Hosted Zone” in DNS management

Step 3: Provide the Domain Name purchased



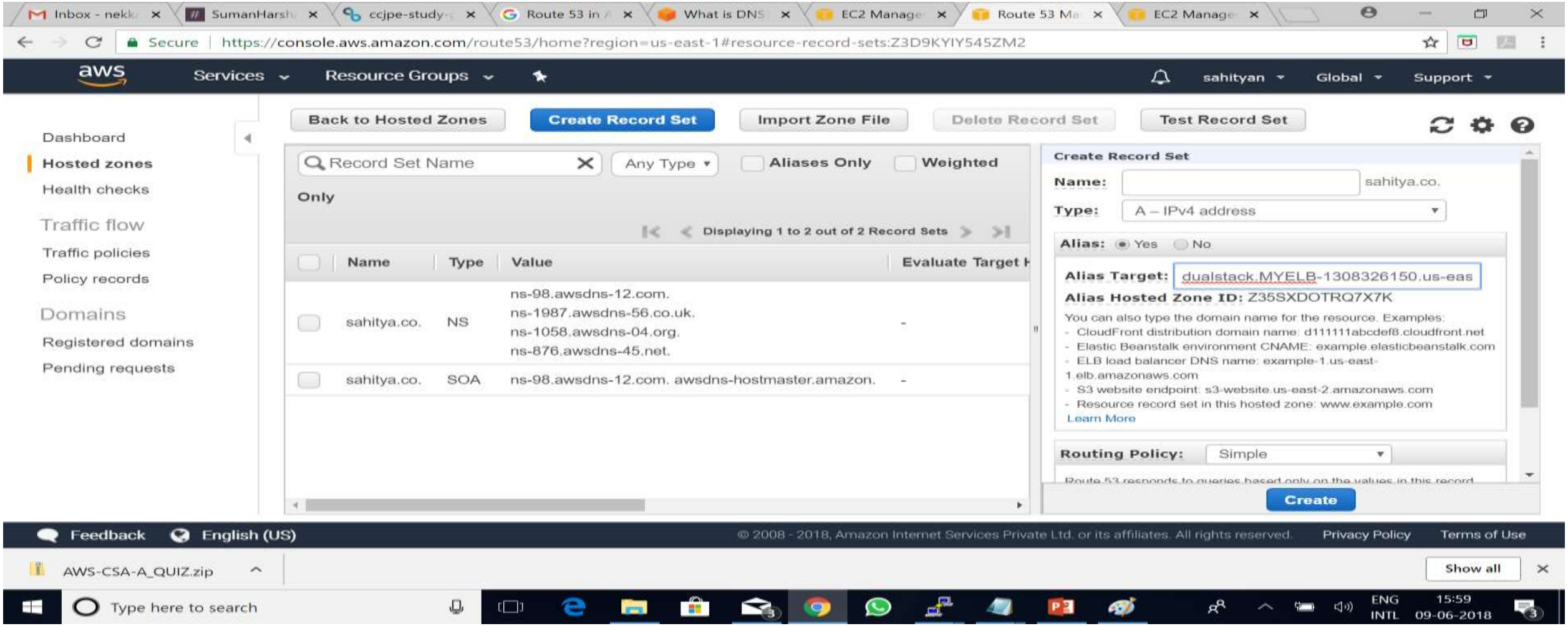
Click on Create

Step 4: Click on create Record set



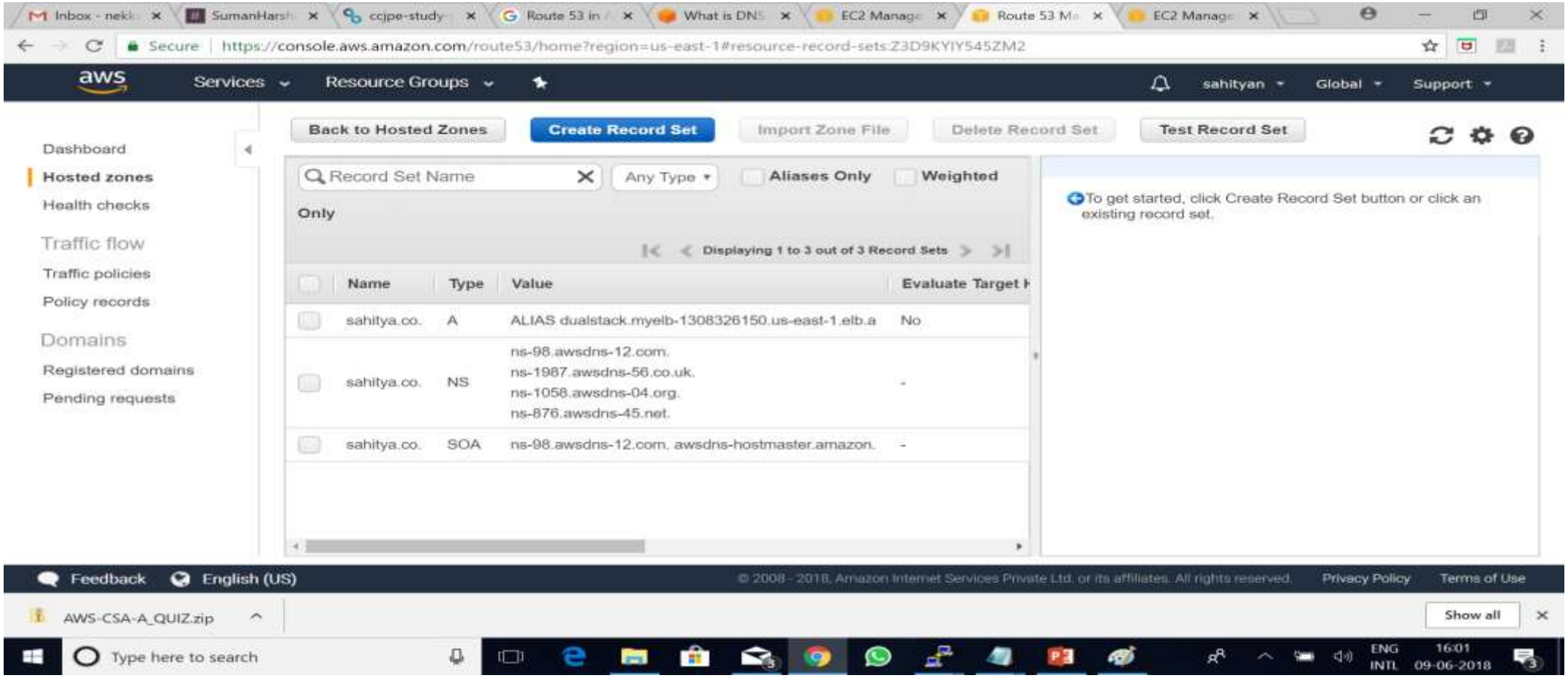
Click on Create

Step 5: Create Record set and provide the ELB in the Alias Target

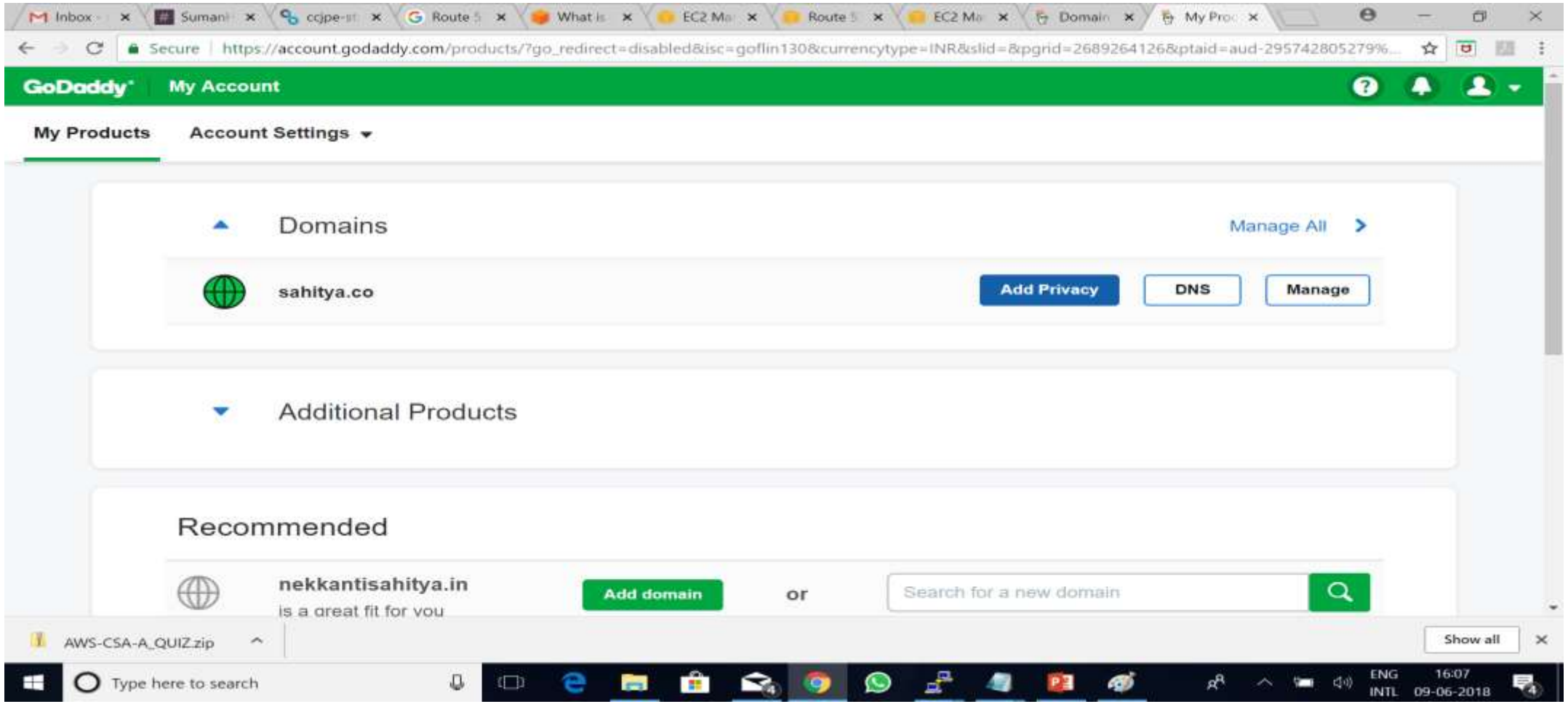


Click on Create

Step 6: Finally A Record will be Created

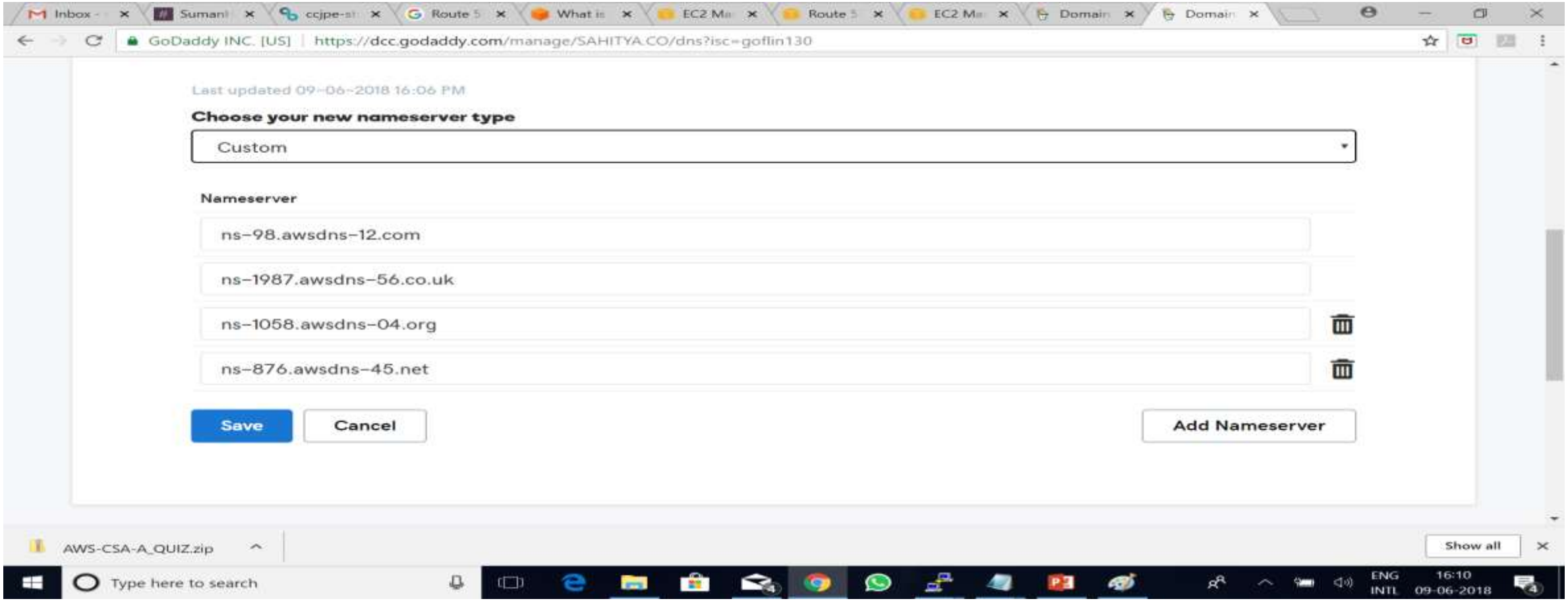


Step 6: Now copy the DNS Valaues in NA and paste in the domain you purchased(Example : Go Daddy)



Click on DNS

Step 7: Go to DNS, click on change & Select cutom and paste AWS DNS



Finally Click on Save

Step 8:Finally check your application using your domain