

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

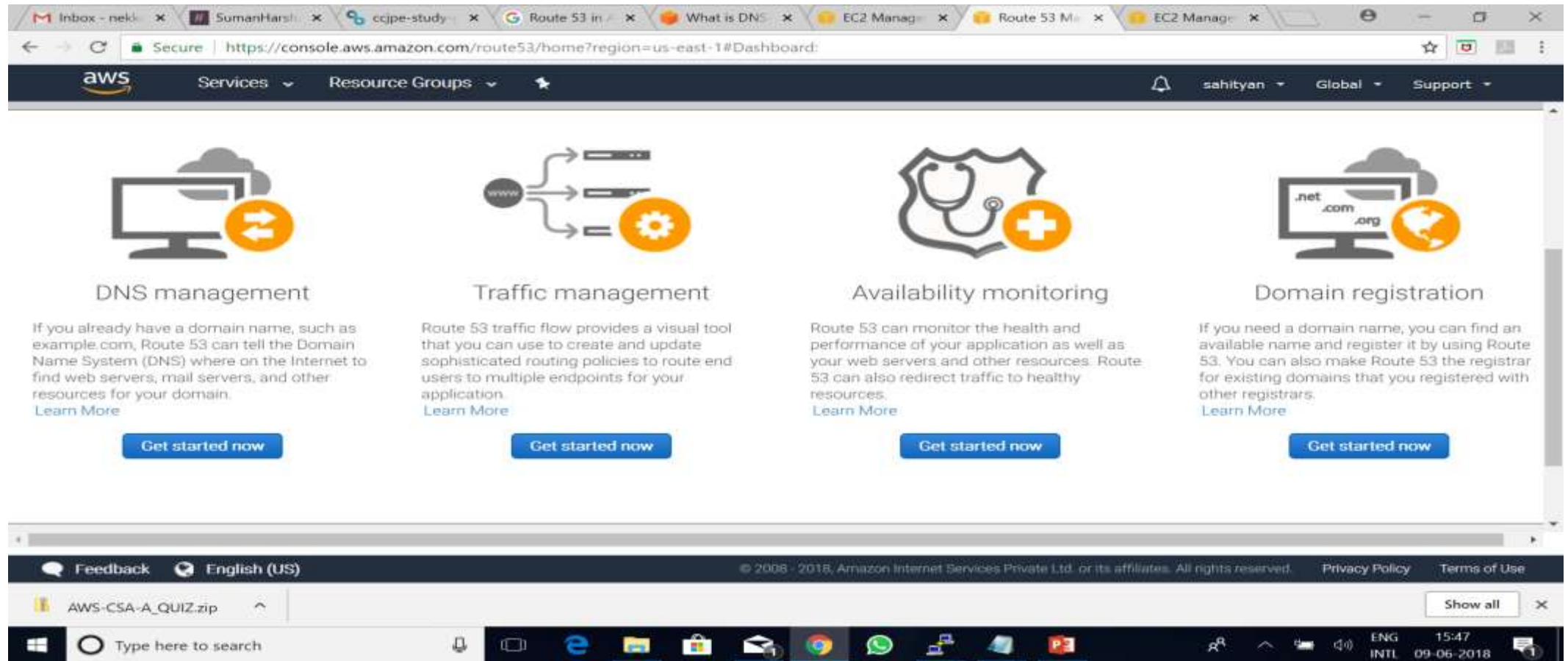
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LAB

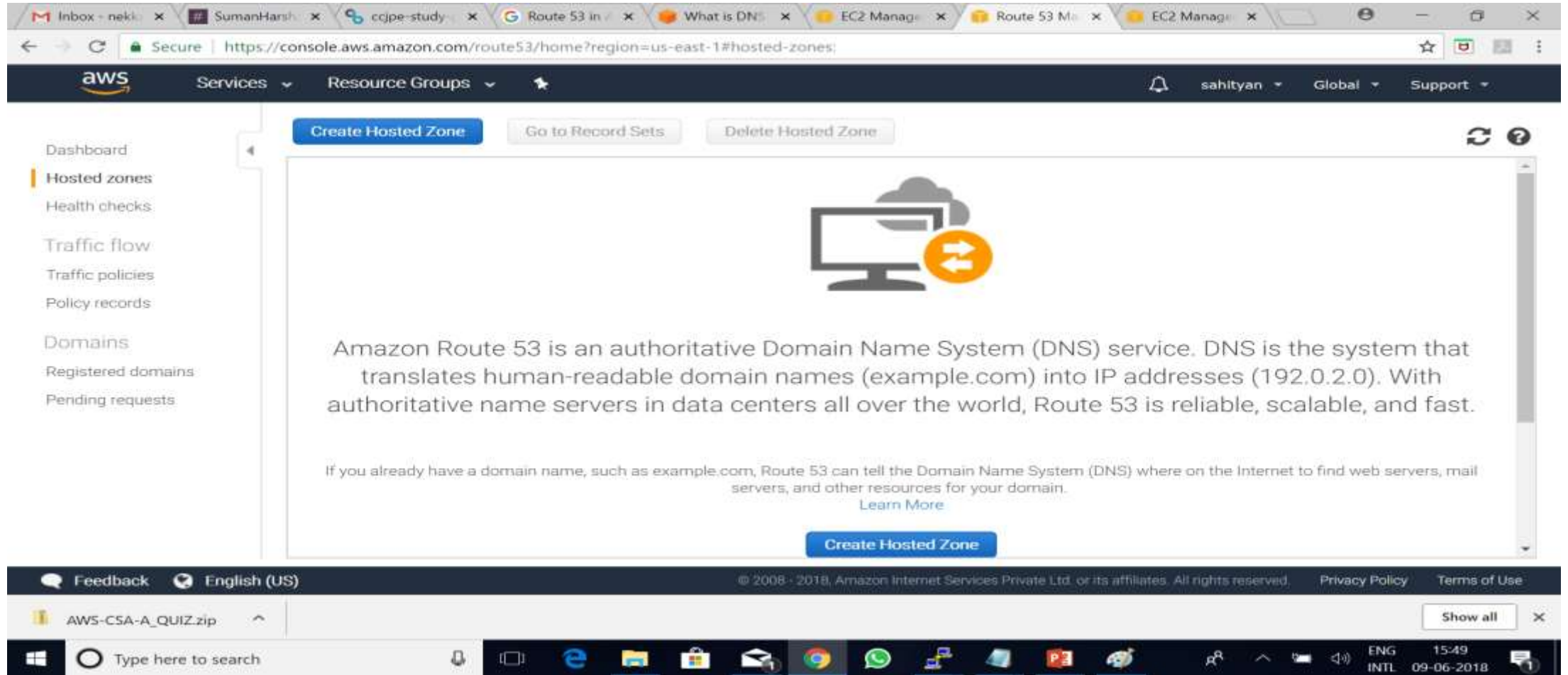
- 1) Create EC2 instance with load balancer to launch application.
- 2) Purchase domain for registering DNS to the application
Example : Godaddy to purchase
- 2) Create a Hosted Zone .
- 3) Create a Record set.
- 4) Copy your Aws Domains in Domain which you have purchased
- 5) Finally verify the application 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

The screenshot shows the AWS Management Console interface for the 'route53/home?region=us-east-1#hosted-zones' page. The left sidebar contains navigation links: Dashboard, Hosted zones (selected), Health checks, Traffic flow, Traffic policies, Policy records, Domains, Registered domains, and Pending requests. The main content area has a 'Create Hosted Zone' button and a 'Go to Record Sets' button. Below these is a search bar and a table header with columns: Domain Name, Type, Record Set Count, Comment, and Hosted Zone ID. The table is currently empty, displaying 'You have no hosted zones'. On the right, the 'Create Hosted Zone' form is visible, with the following fields: 'Domain Name' (sahitya.co), 'Comment' (empty), and 'Type' (Public Hosted Zone). A 'Create' button is at the bottom right of the form. The bottom of the screen shows the Windows taskbar with various application icons and the system clock indicating 15:51 on 09-06-2018.

Click on Create

Step 4: Click on create Record set

The screenshot displays the AWS Management Console interface for Route 53. The left sidebar shows navigation options: Dashboard, Hosted zones (selected), Health checks, Traffic flow, Traffic policies, Policy records, Domains, Registered domains, and Pending requests. The main content area is titled 'Create Record Set' and includes buttons for 'Back to Hosted Zones', 'Create Record Set' (highlighted in blue), 'Import Zone File', 'Delete Record Set', and 'Test Record Set'. Below these buttons is a search bar for 'Record Set Name' and filters for 'Any Type', 'Aliases Only', and 'Weighted'. A table displays existing record sets for the domain 'sahitya.co':

Name	Type	Value	Evaluate Target
sahitya.co.	NS	ns-98.awsdns-12.com, ns-1987.awsdns-56.co.uk, ns-1058.awsdns-04.org, ns-876.awsdns-45.net.	-
sahitya.co.	SOA	ns-98.awsdns-12.com. awsdns-hostmaster.amazon.	-

On the right, the 'Create Record Set' form is shown with the following details:

- Name:** sahitya.co.
- Type:** A – IPv4 address
- Alias:** Yes (selected)
- Alias Target:** dualstack.MYELB-1308326150.us-eas
- Alias Hosted Zone ID:** Z35SXDOTRQ7X7K
- Routing Policy:** Simple

A 'Create' button is visible at the bottom of the form. The bottom of the image shows the Windows taskbar with various application icons and the system clock indicating 15:59 on 09-06-2018.

Click on Create

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

The screenshot displays the AWS Management Console interface for Route 53. The left sidebar shows navigation options: Dashboard, Hosted zones (selected), Health checks, Traffic flow, Traffic policies, Policy records, Domains, Registered domains, and Pending requests. The main content area is titled 'Create Record Set' and includes buttons for 'Back to Hosted Zones', 'Create Record Set' (highlighted), 'Import Zone File', 'Delete Record Set', and 'Test Record Set'. Below these buttons is a search bar for 'Record Set Name' and filters for 'Any Type', 'Aliases Only', and 'Weighted'. A table displays existing record sets for the domain 'sahitya.co':

Name	Type	Value	Evaluate Target
sahitya.co.	NS	ns-98.awsdns-12.com, ns-1987.awsdns-56.co.uk, ns-1058.awsdns-04.org, ns-876.awsdns-45.net.	-
sahitya.co.	SOA	ns-98.awsdns-12.com. awsdns-hostmaster.amazon.	-

On the right, the 'Create Record Set' form is shown with the following details:

- Name:** sahitya.co.
- Type:** A – IPv4 address
- Alias:** Yes (selected)
- Alias Target:** dualstack.MYELB-1308326150.us-east-1.elb.amazonaws.com
- Alias Hosted Zone ID:** Z35SXDQTRQ7X7K
- Routing Policy:** Simple

The 'Create' button is visible at the bottom of the form. The bottom of the image shows the Windows taskbar with various application icons and the system clock indicating 15:59 on 09-06-2018.

Click on Create

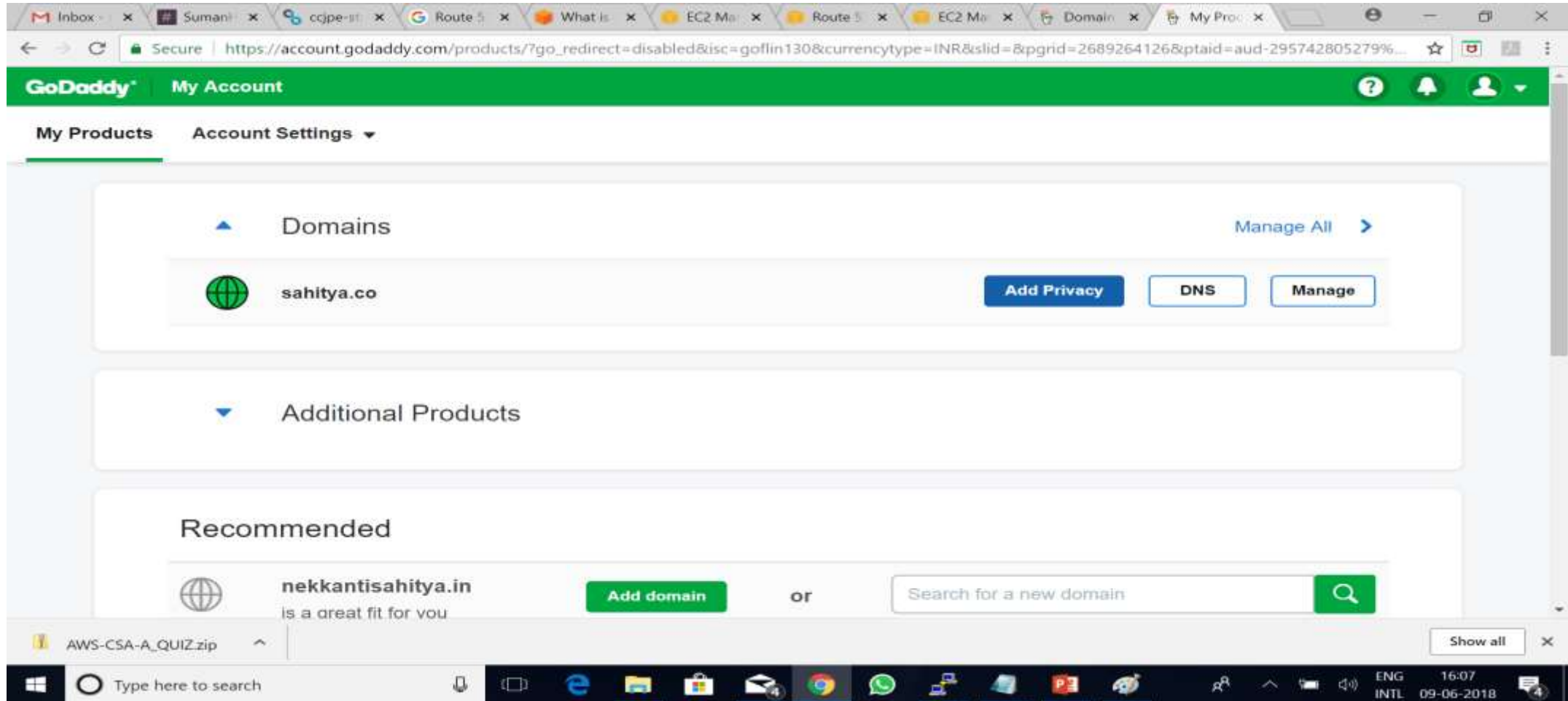
Step 6: Finally A Record will be Created

The screenshot displays the AWS Route 53 console interface. The left sidebar contains navigation links: Dashboard, Hosted zones (selected), Health checks, Traffic flow, Traffic policies, Policy records, Domains, Registered domains, and Pending requests. The main content area shows the 'Record Sets' page for the hosted zone 'sahitya.co.'. At the top, there are buttons: 'Back to Hosted Zones', 'Create Record Set' (highlighted in blue), 'Import Zone File', 'Delete Record Set', and 'Test Record Set'. Below these buttons is a search bar for 'Record Set Name' and filters for 'Any Type', 'Aliases Only', and 'Weighted'. A table lists the existing record sets:

Name	Type	Value	Evaluate Target Health
sahitya.co.	A	ALIAS dualstack.myelb-1308326150.us-east-1.elb.a	No
sahitya.co.	NS	ns-98.awsdns-12.com, ns-1987.awsdns-56.co.uk, ns-1058.awsdns-04.org, ns-876.awsdns-45.net.	-
sahitya.co.	SOA	ns-98.awsdns-12.com, awsdns-hostmaster.amazon.	-

Below the table, a message states: 'To get started, click Create Record Set button or click an existing record set.' The bottom of the image shows the Windows taskbar with the search bar, taskbar icons, and system tray showing the date and time as 16:01 on 09-06-2018.

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



Click on DNS

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

The screenshot shows a web browser window with the GoDaddy INC. [US] page. The URL is <https://dcc.godaddy.com/manage/SAHITYA.CO/dns?isc=goflin130>. The page indicates it was last updated on 09-06-2018 at 16:06 PM. Under the heading "Choose your new nameserver type", a dropdown menu is set to "Custom". Below this, under the "Nameserver" section, there are four input fields containing the following AWS DNS addresses: ns-98.awsdns-12.com, ns-1987.awsdns-56.co.uk, ns-1058.awsdns-04.org, and ns-876.awsdns-45.net. Each input field has a trash icon to its right. At the bottom left, there are "Save" and "Cancel" buttons. At the bottom right, there is an "Add Nameserver" button. The Windows taskbar at the bottom shows the search bar and various application icons. The system tray on the right shows the language as ENG INTL, the time as 16:10, and the date as 09-06-2018.

Last updated 09-06-2018 16:06 PM

Choose your new nameserver type

Custom

Nameserver

ns-98.awsdns-12.com

ns-1987.awsdns-56.co.uk

ns-1058.awsdns-04.org

ns-876.awsdns-45.net

Save Cancel Add Nameserver

Finally Click on Save

Step 8: Finally check your application using your domain

