DNS load balancing for HA using AWS Route 53

681 Nesvin KN April 22, 2025 Features & Functionalities, General 4919

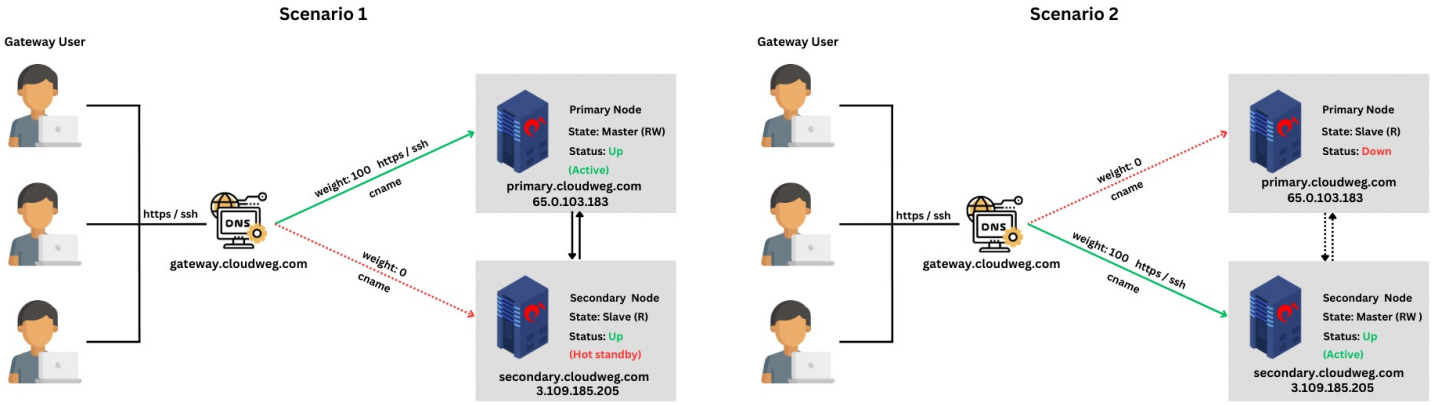
How to implement DNS load balancing in Ezeelogin cluster for high availability (HA)?

Overview: This article explains how to implement DNS load balancing in an Ezeelogin cluster using AWS Route 53 to achieve high availability (HA), by directing traffic between a primary and a hot-standby secondary node based on DNS weight configuration and health checks.

In the following example we will configure the hostname **gateway.cloudweg.com** to point to the primary node **(primary.cloudweg.com/65.0.103.183)** using weights in the DNS load balancer (Route 53). In the event of failure of the primary node the traffic would be directed to the secondary node **(secondary.cloudweg.com/3.109.185.205)** which is in the hot standby mode.

> The node **secondary.cloudweg.com** needs to be switched to the master state to perform read/write operations.
>
> Refer article to switch the node states

Diagram explaining DNS weight distribution:

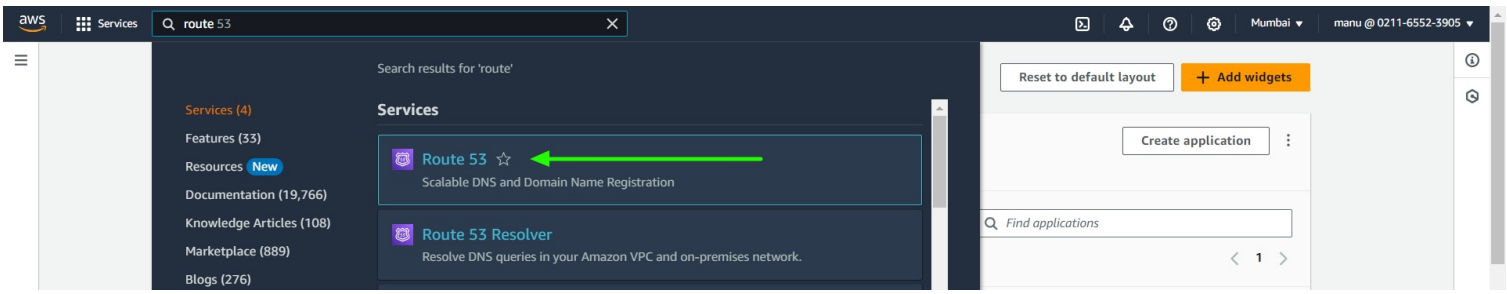


Scenario 1: **Primary node is in active state and secondary is in the hot standby mode**. Traffic is routed to the primary node.

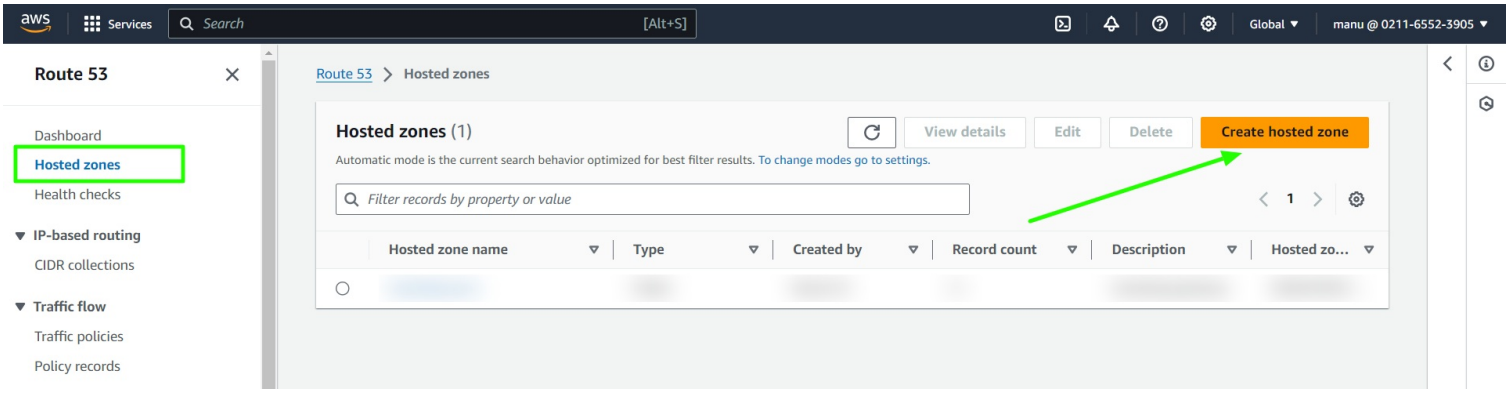
Scenario 2: **Primary node is down and secondary node is in the active state**. Traffic is routed to the secondary node.

Steps to set the DNS in AWS Route 53:

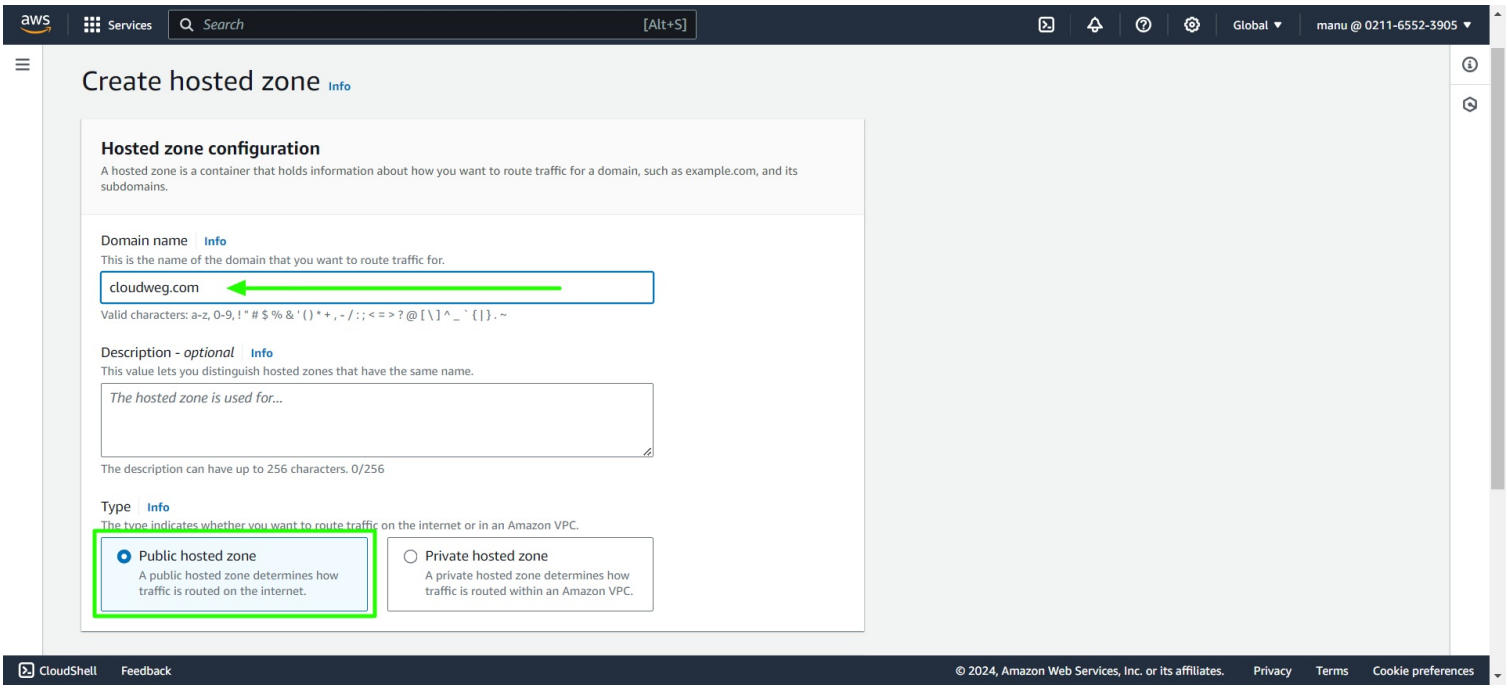
Step 1: Login to **AWS account** and search for **Route 53.**



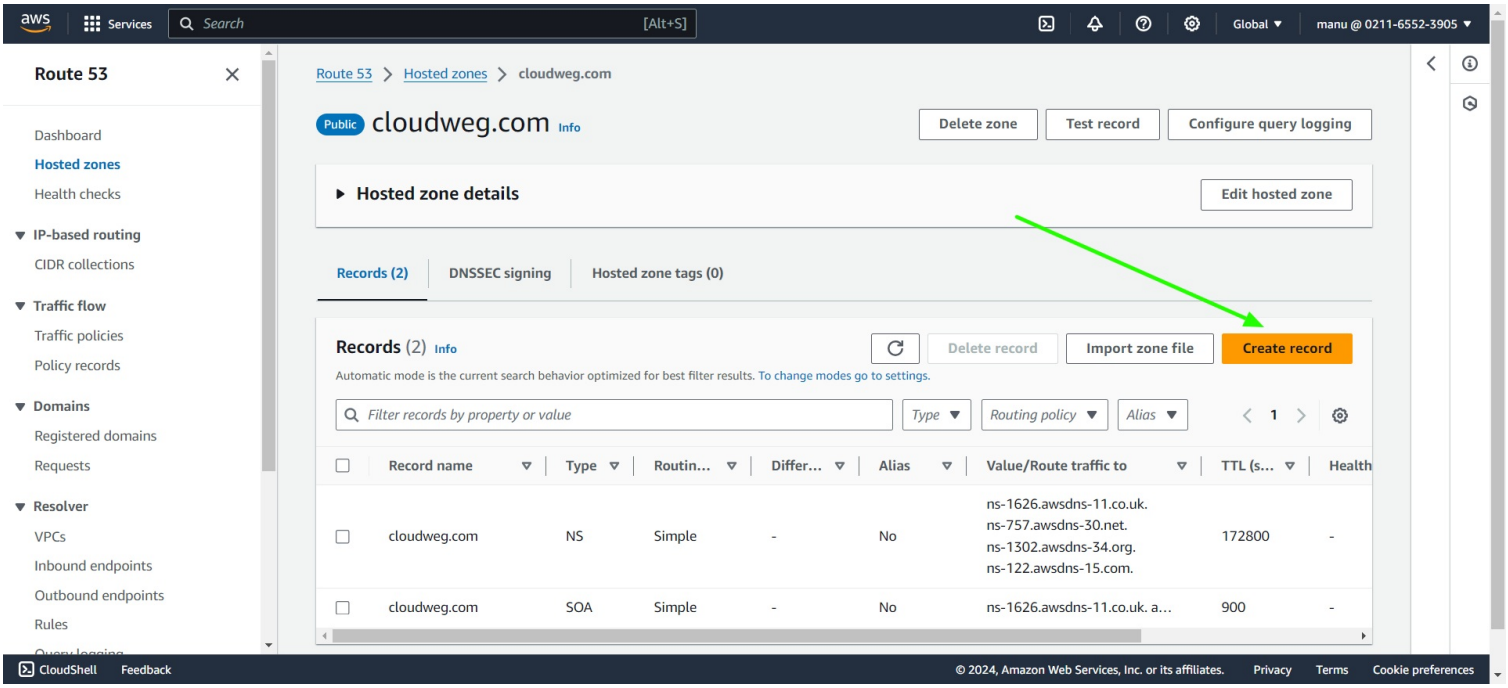
Step 2: Select **Hosted zones** and **create new hosted zone**.



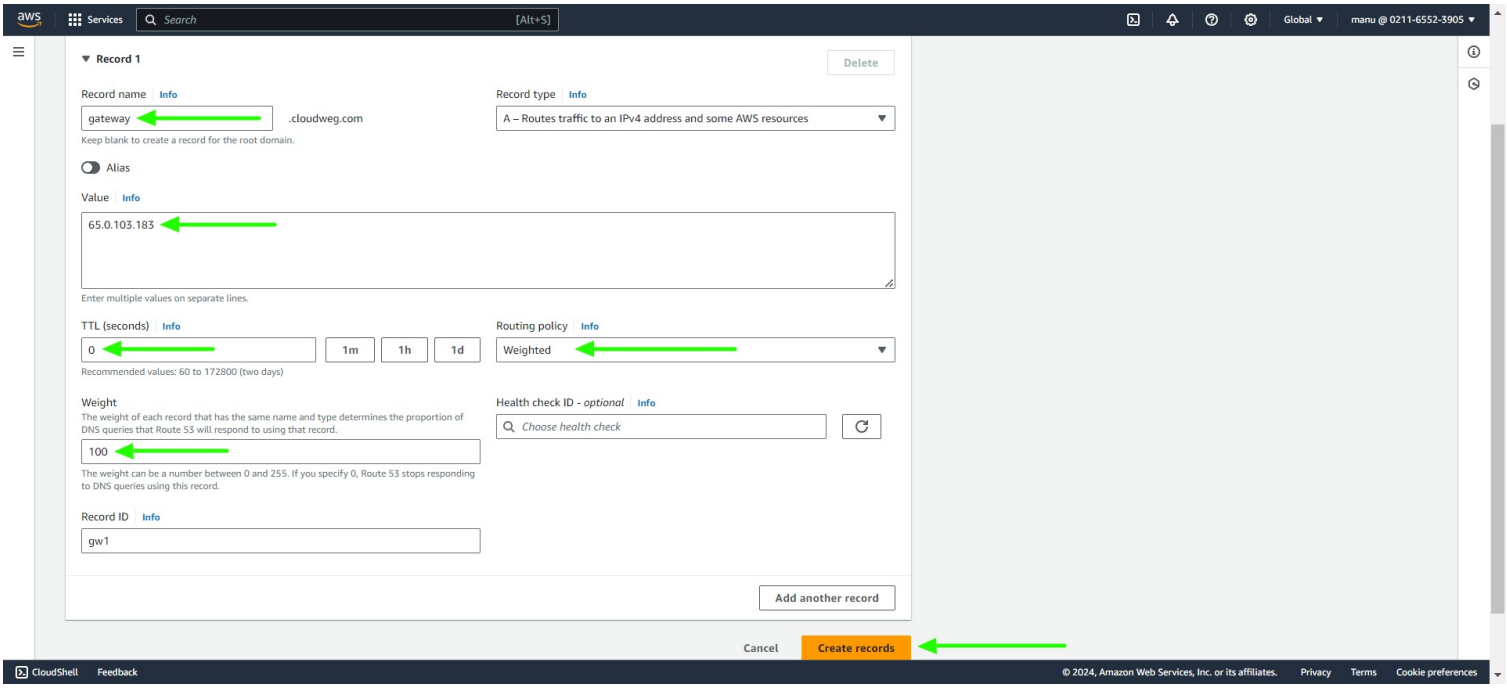
Step 3: Provide **domain name** in **hosted zone configuration** and select **public hosted zone**.



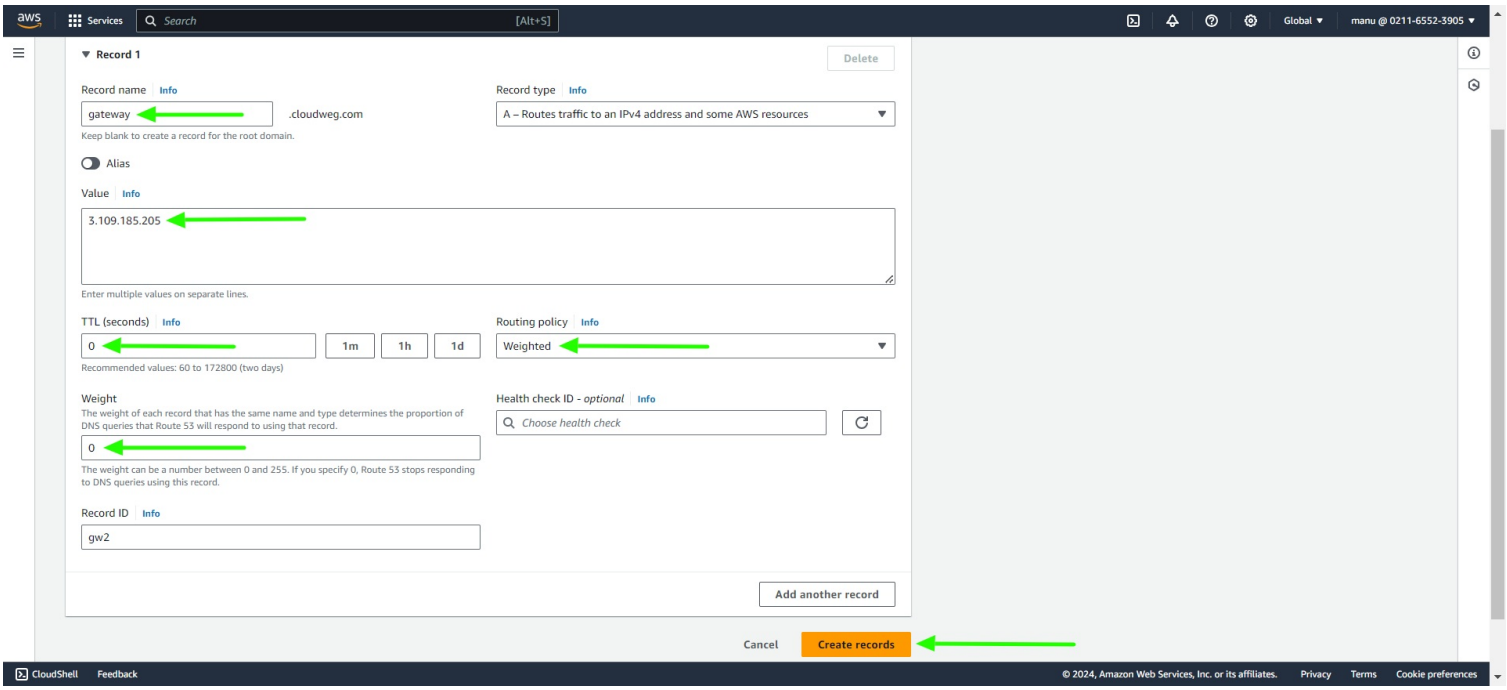
Step 4: Create **new record** under new domain name created.



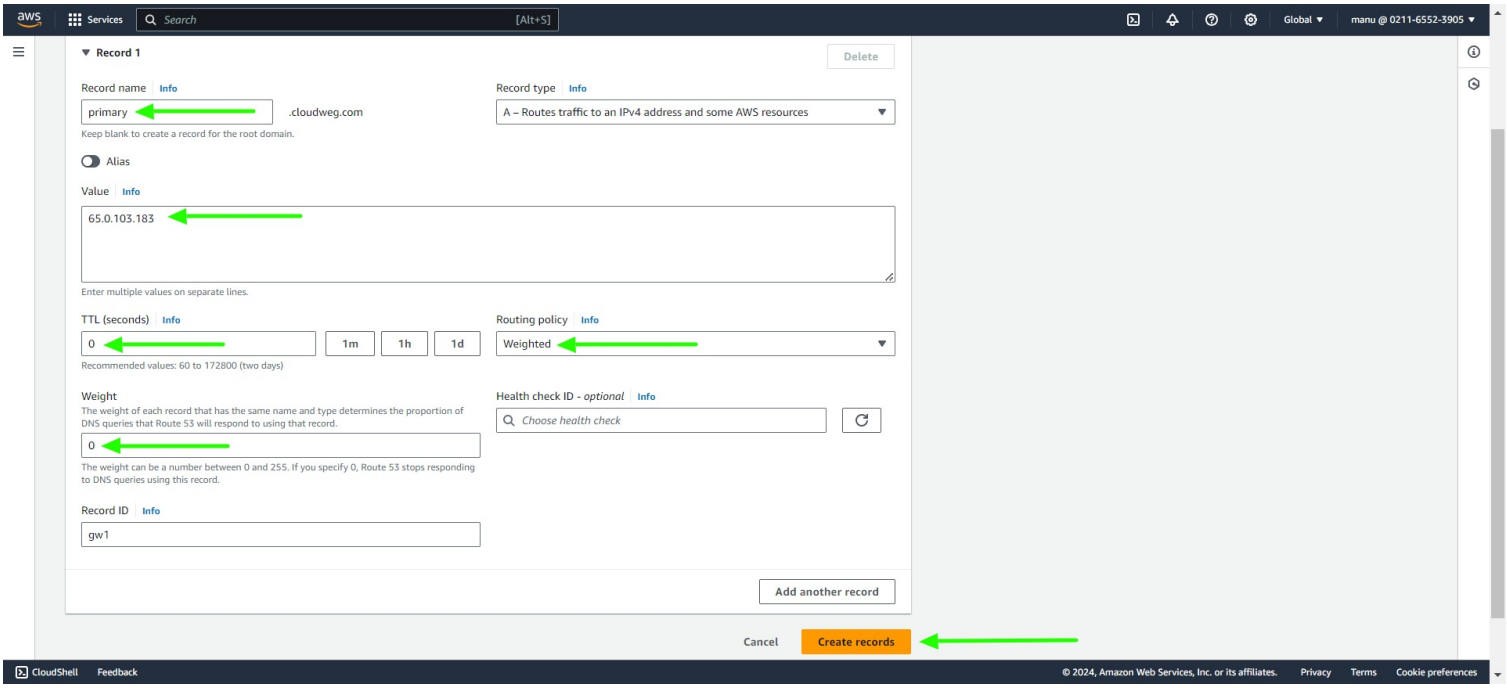
Step 5: Provide the **name of the record to be used for calling Ezeelogin**. Paste the **public IP of the primary node**, set the **TTL seconds to 0**, choose the **routing policy as weighted** with a **weight of 100**, provide the **record ID**, and then proceed to **create the record**.



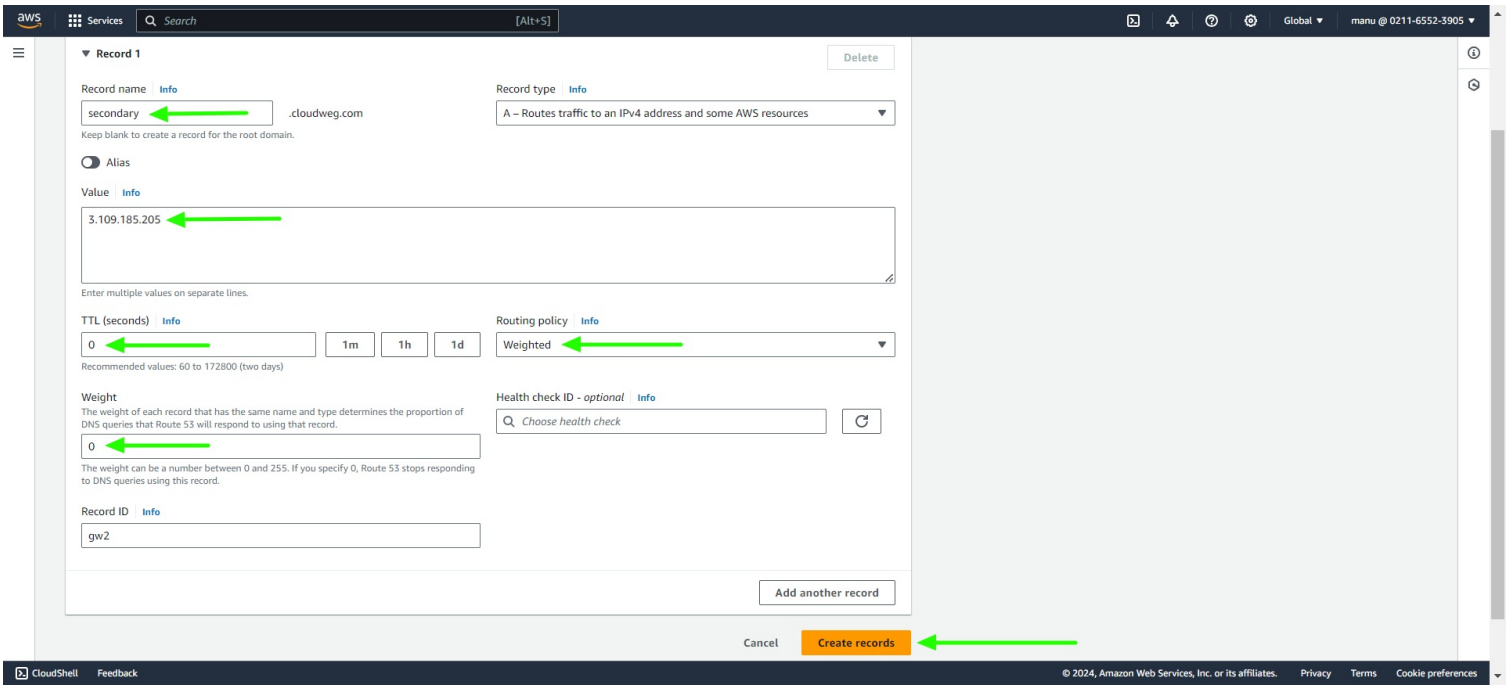
Step 6: Provide the **same name of the record to be used for calling Ezeelogin**. Paste the **public IP of the secondary node**, set the **TTL seconds to 0**, choose the **routing policy as weighted** with a **weight of 0**, provide the **record ID**, and then proceed to **create the record**.



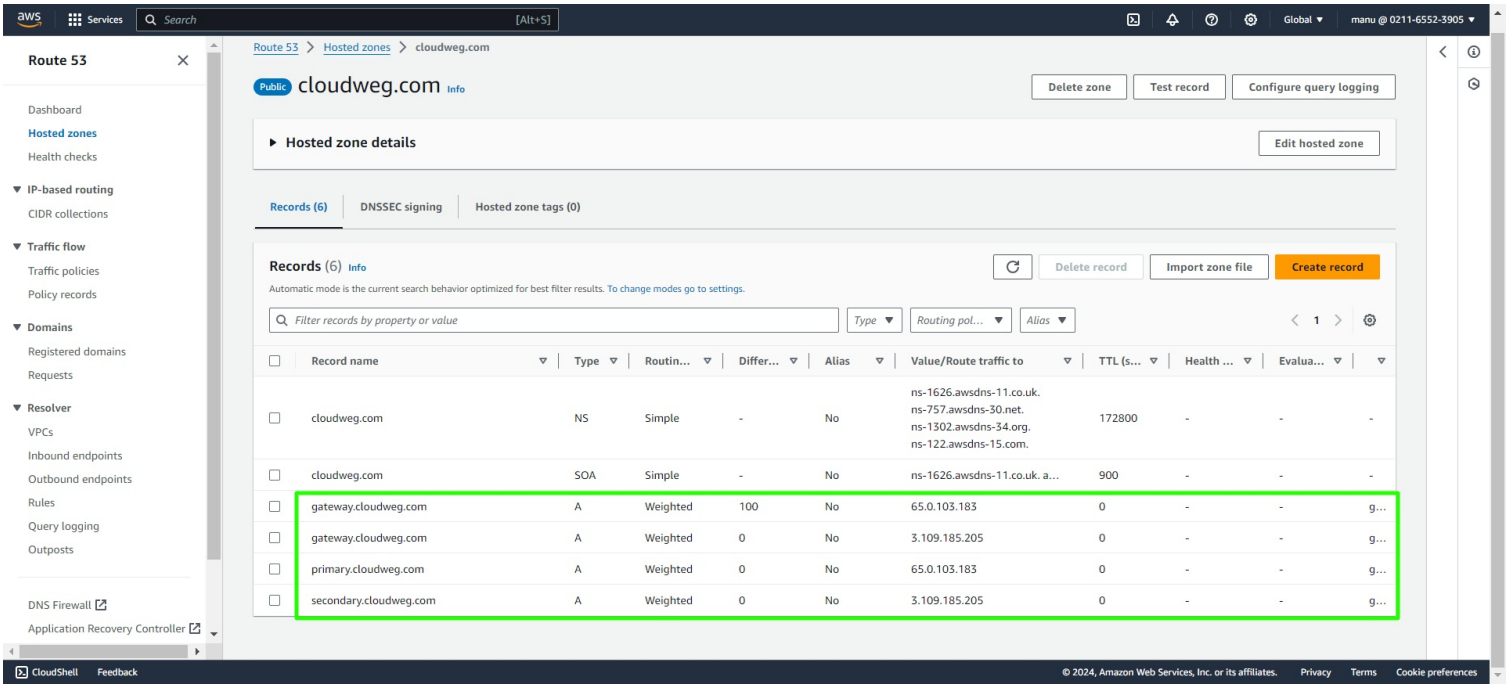
Step 7: Create **another record for primary with primary public IP.**



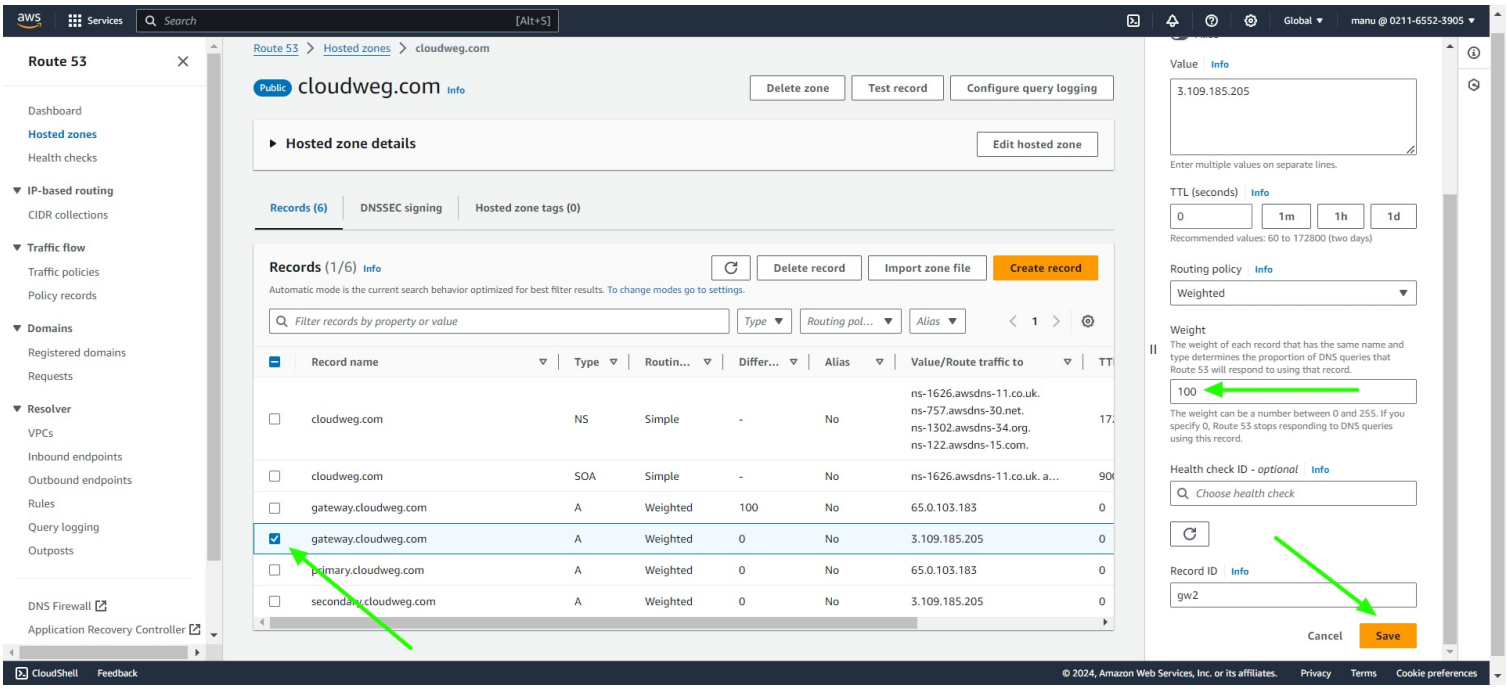
Step 8: Create **another record for secondary with secondary public IP**.



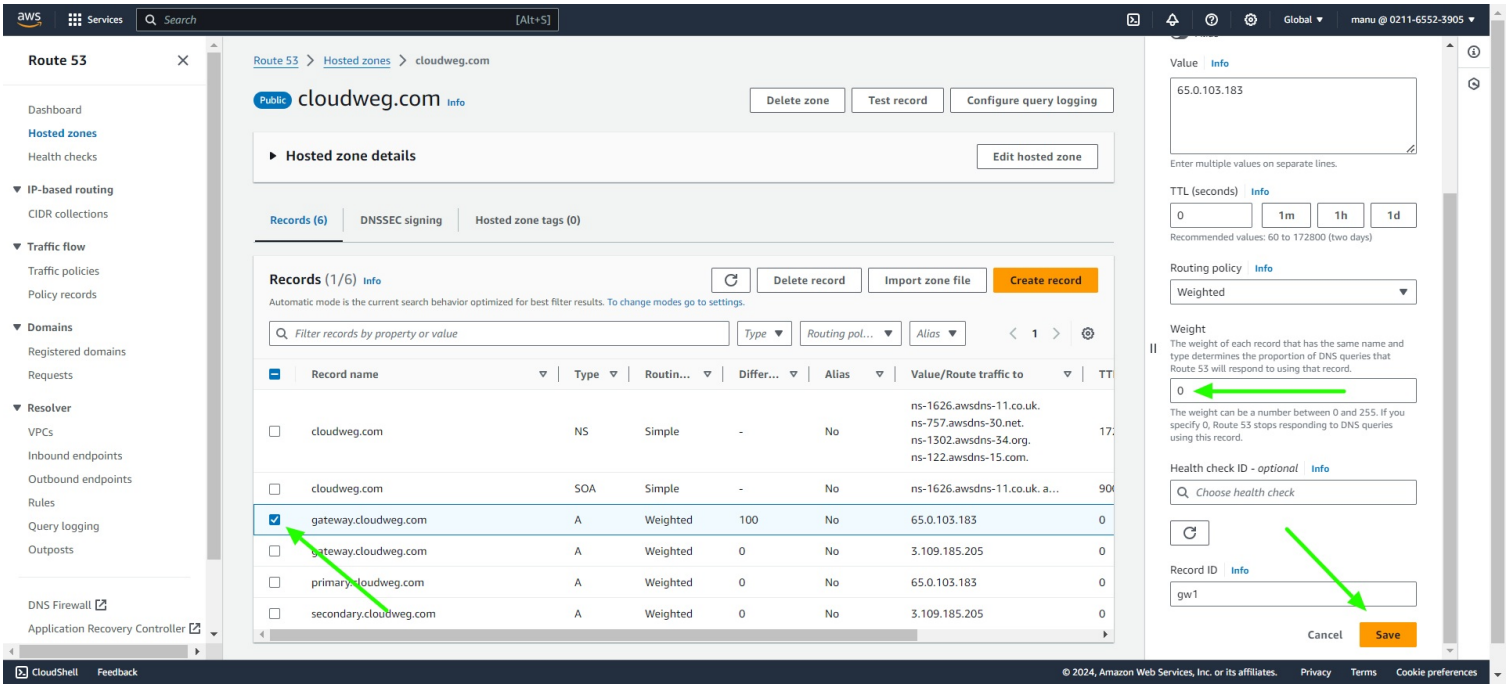
Step 9: Created **records can be viewed under hosted zones**.



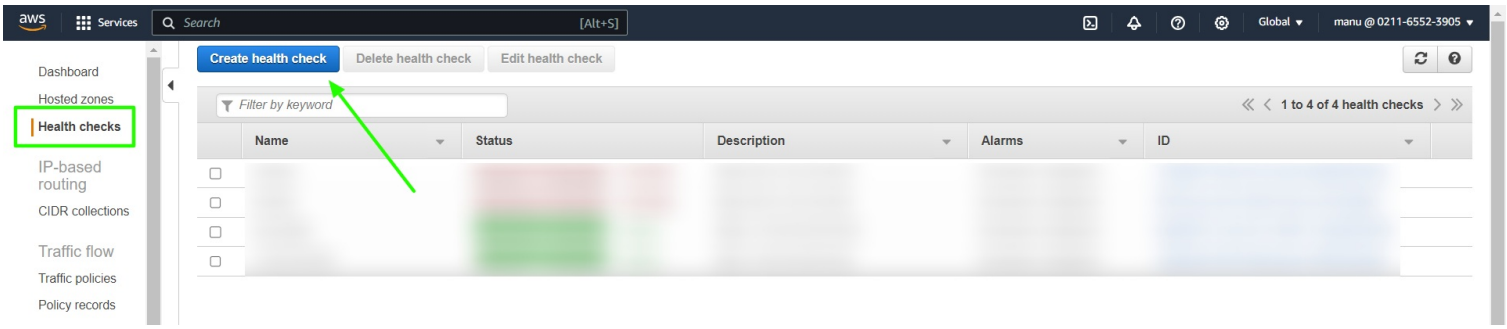
Step 10: To **change the weight**, select the **secondary record -> edit record -> change weight to 100** and save.



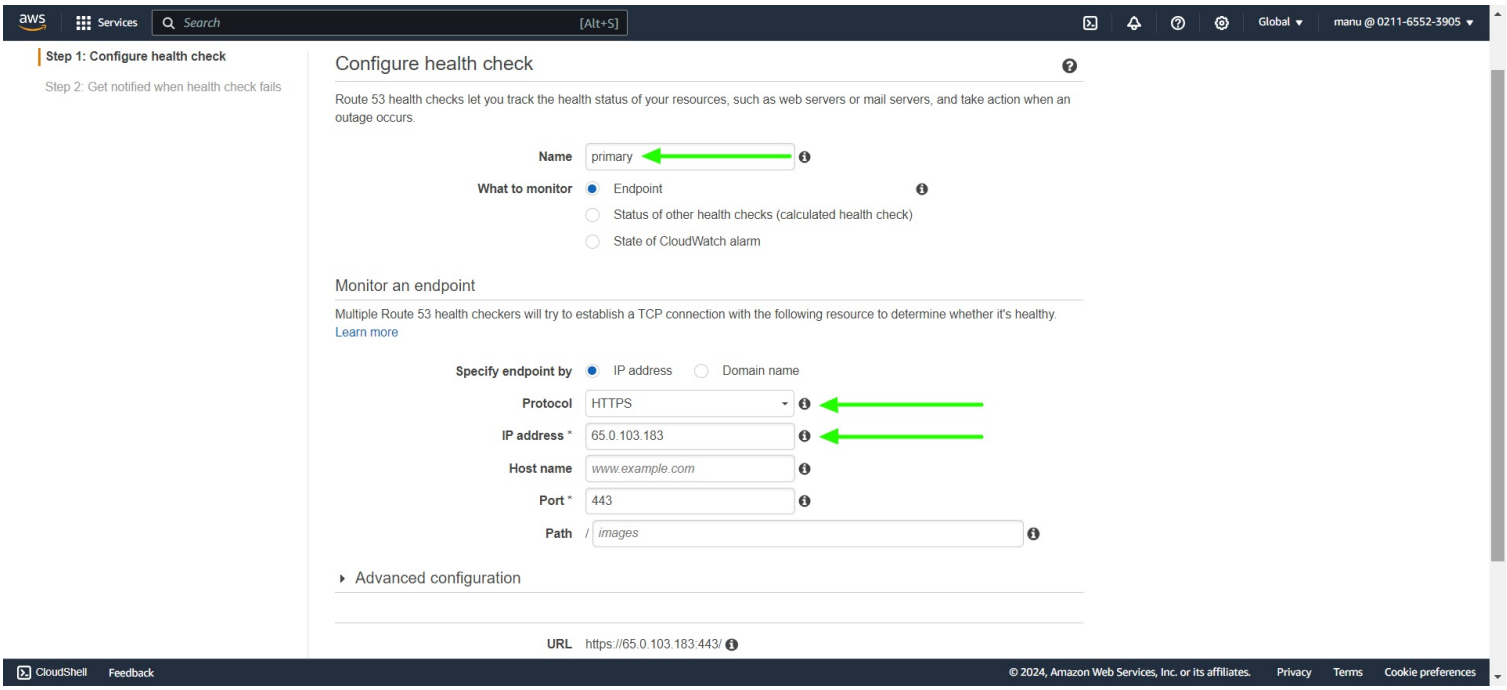
Select the primary record -> edit record -> change weight to 0 and save.



Step 11: Click on **health checks** and **create new health** check for both primary and secondary.

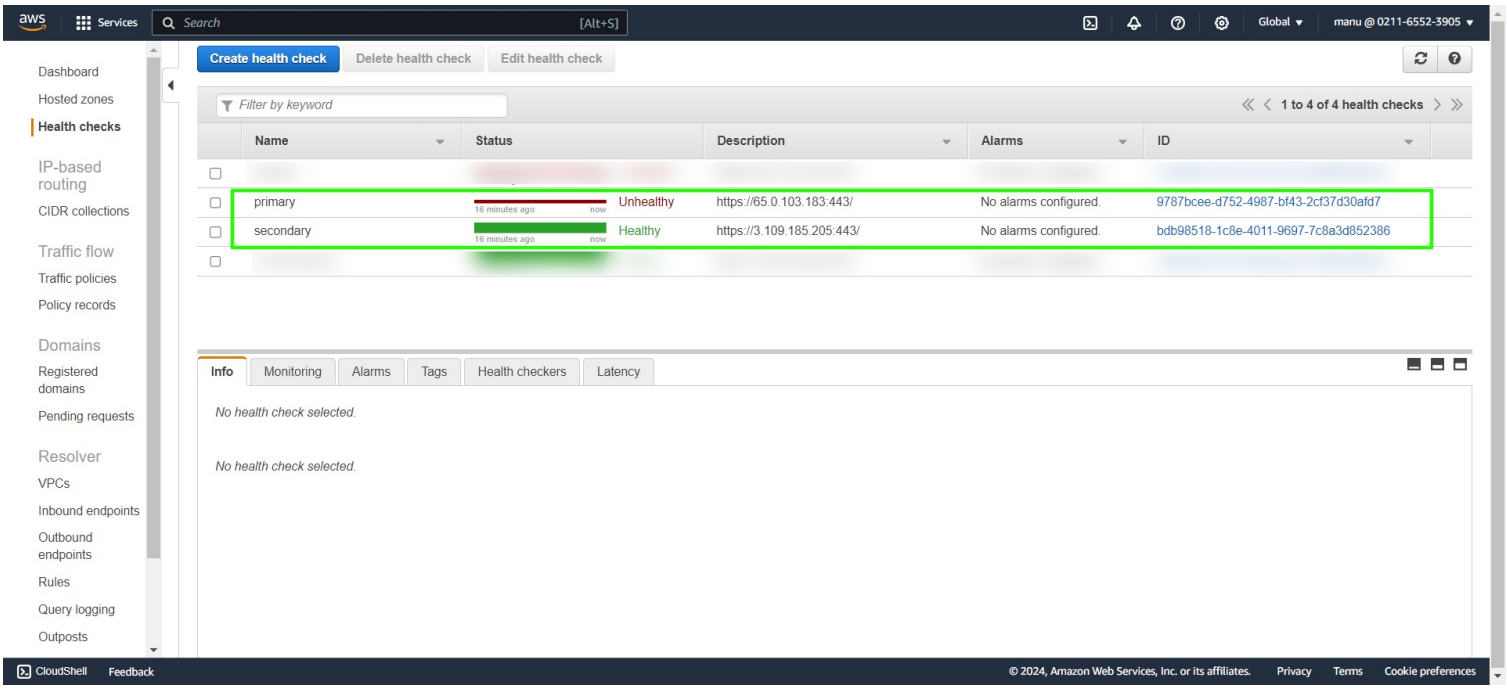


Provide a **name for the primary health check** settings, **select the protocol**, paste the **public IP of the primary node**, and then save the settings.



Provide a **name for the secondary health check** settings, **select the protocol**, paste the **public IP of the secondary node**, and then save the settings.

Step 12: The health check settings have been created, and their **status can be viewed in the health checks tab**.



Step 13: Now gateway server can be access with gateway.cloudweg.com and according to the weight distribution the primary or secondary node can be accessed.

Related Articles:

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Cluster (Master-Slave) explained in Ezeelogin

Switching node states in Ezeelogin Cluster

Create load balancer in AWS for Ezeelogin Cluster

Online URL: https://www.ezeelogin.com/kb/article/dns-load-balancing-for-ha-using-aws-route-53-681.html