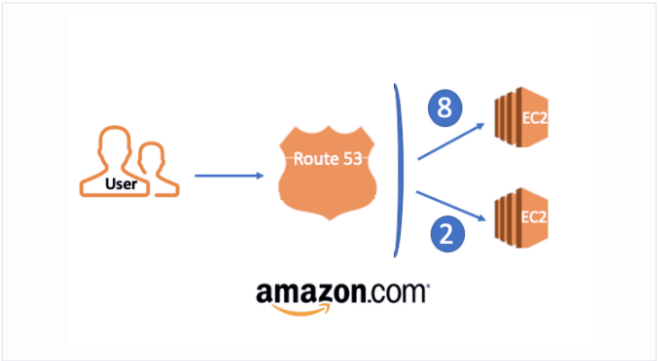
Example of Weighted Routing Policy

Scenario for the Weighted Routing Policy



Weighted Routing Policy

As you remember in previous lessons, we created 2 EC2 instances as **webserver-1** and **webserver-2**.

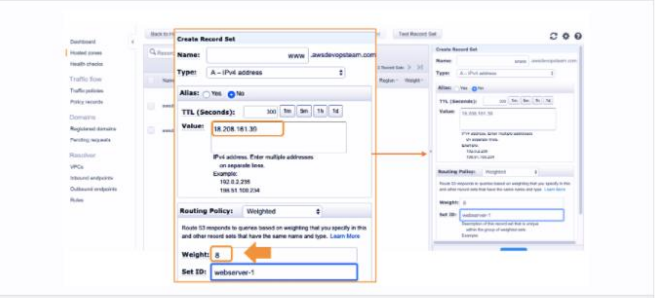
> **Creating EC2 Instances for web site**

We'll map our website with IPs of these instances via **A records**. But, this time we want Route 53 to return these IPs of instances according to the weight ratio we determined.

So, when you enter the domain name on the browser, Route 53 will respond 8 of the query as webserver-1 and the remaining 2 as webserver-2.

We can do it via a weighted routing policy. Let's see how.

Setting Weighted Routing Policy-1



Creating A Record

- Select **Hosted Zones** on the left-hand menu and then click on **Public Hosted Zone**.
- On the page opened, click **Create Record Set** tab.

Now, Let's begin to create;

- **Name:**

Here we enter **www**. So we want to reach our web site when entering the browser **wwww.awsdevopsteam.com**.

- **Type:**

We select the record type as A Record-IPv4 address

- **Alias:**

Leave it as default,**No**

- **TTL (Seconds):**

Default Value 300 is enough.

- **Value:**

We enter **Public IPs of EC2 instance** determined as a webserver-1

18.208.161.39

- **Routing Policy:**

We select **Weighted Policy**

- **Weight:**

This a value that determines the proportion of DNS queries that Route 53 responds to using the current record. Route 53 calculates the sum of the weights for the records that have the same combination of DNS name and type. Route 53 then responds to queries based on the ratio of a resource's weight to the total.

We enter this value as **8**.

- **Set ID:**

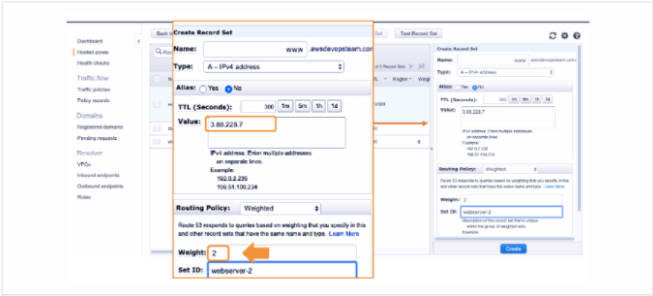
We enter the description of this record set that is unique within the group of weighted sets. We write **webserver-1**.

- **Associate with Health Check:**

We leave it as default, **No**

Then click **Create** and it's done.

Setting Weighted Routing Policy-2



Creating a Second A Record

- **Name:**

Here we enter **www** again.

- **Type:**

We select the record type as A Record-IPv4 address

- **Alias:**

Leave it as default,**No**

- **TTL (Seconds):**

Default Value 300 is enough.

- **Value:**

We enter **Public IPs of EC2 instance** determined as a webserver-2

3.88.228.7

- **Routing Policy:**

We select **Weighted Policy**

- **Weight:**

This a time we enter weight value as **2**

So two record sets have weights of 2 and 8 (sum=10). On average Route 53 selects the record 2/10th of the time and the other record 8/10th of the time.

- **Set ID:**

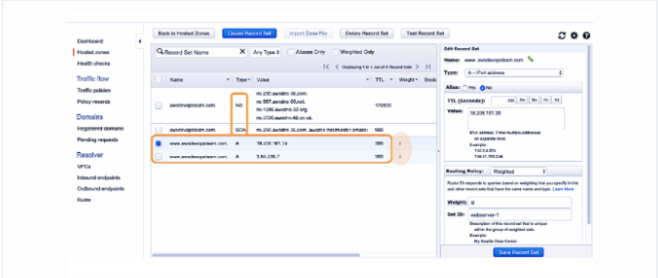
We enter the description of this record set that is unique within the group of weighted sets. We write **webserver-2**.

- **Associate with Health Check:**

We leave it as default, **No**

Then click **Create** and it's done.

Checking Weighted Routing Policy



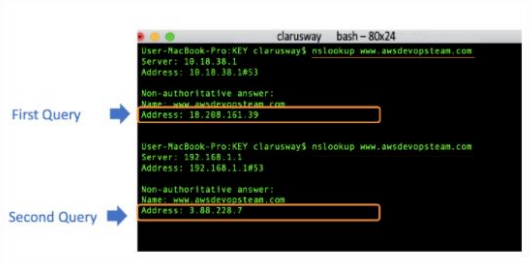
Checking Weighted Routing Policy

- As you see in the picture above, there are **multiple** records with the same name and they are listed together with SOA and NS records.
- You can also see the **weight value** right side of the records as **8** and **2**.
- Let's check from the Terminal. So, we'll use the command of **nslookup** together with the domain name.

```
nslookup www.awsdevopsteam.com (your domain name)
```

Checking on Terminal-1

- In the picture above, you'll see the IP of 18.208.161.39 listed on the screen. It means the webserver-1 is running on the EC2 instance.
- Thus, Route 53 will be able to answer 7 of the remaining 9 queries as webserver-1 and 2 of them as webserver-2.



Checking on Terminal-2

- When we wait for TTL and write the command of **nslookup** together with the domain name, we may see the IP of 3.88.228.7 on the screen. Since the resolver cached this record if you want to receive different IP you need to wait for TTL or try from another computer.
- But don't forget that the probability of returning webserver-1 is still proportionally higher (7/9) than webserver-2 (2/9). So you may get the response of webserver-1 again. If it happens, try again after TLL expires.