Module-3: Route 53 Assignment - 3

You have been asked to:

1. Use the Route 53 Hosted Zone created in the Assignment
2. Route the traffic to an EC2 instance with an Apache web server running in it using it’s IP address

1. Create an EC2 instance with Apache web server running in it

- The steps for this were already provided in answer to module 2 assignment 2
  - Follow the same steps to create an EC2 instance named **module_2_assignment_3_ec2_vm1** and install and configure apache2 in it.
  - Verify from a browser that typing the dns name of the EC2 instance in the address bar will take to the **Apache2 Ubuntu Default Page**.

2. Use Route 53 to register a DNS name called _hariharan.link_

- Open the AWS Route 53 console - https://console.aws.amazon.com/route53
- In "Route 53 Dashboard", enter **hariharan.link** in the text box under "Register Domain"
- Finish the purchase of this domain.

3. Use Route 53 to route traffic

- Open the AWS Route 53 console - https://console.aws.amazon.com/route53
- Navigate to **Hosted zones** and select **hariharan.link**. Click on **View details**
- In the "hariharan.link" page, click on **Create record**
- In the "Quick create record" page...
  - In the field "Record name", enter **awsassignment** so that the full DNS name reads as **awsassignment.hariharan.link**
  - In the field "Routing policy", choose **Simple routing**
  - In the field "Value", paste the value of **IPv4 Public IP** copied from the EC2 console of the EC2 instance created above. Finally click on **Create records**
- In the "hariharan.link" page, verify that a record for _awsassignment.hariharan.link_ is now added
- Finally, open the link http://awsassignment.hariharan.link in a browser to verify that the **Apache2 Ubuntu Default Page** is opened. This confirms that the DNS record in Route 53 created correctly.

Route 53

Dashboard
Hosted zones
Health checks

Traffic flow
Traffic policies
Policy records

Domains
Registered domains
Pending requests

Resolver
VPCs
Inbound endpoints
Outbound endpoints
Rules
Query logging

DNS Firewall
Rule groups
Domain lists

Application Recovery Controller
Getting started
Readiness check
Resource sets
Readiness rules
Routing control
Clusters

Introducing the new Route 53 console
We've redesigned the Route 53 console to make it easier to use. Let us know what you think. We are continuing to make improvements to the user experience based on your feedback, stay tuned! If you'd prefer to use the old console, click here.

Route 53 > Dashboard

New - Route 53 Application Recovery Controller
Readiness and routing control features help you monitor readiness and manage failovers.
Getting started with Application Recovery Controller

Route 53 Dashboard Info

DNS management
A hosted zone tells Route 53 how to respond to DNS queries for a domain such as example.com.
Create hosted zone

Traffic management
A visual tool that lets you easily create policies for multiple endpoints in complex configurations.
Create policy

Availability monitoring
Health checks monitor your applications and web resources, and direct DNS queries to healthy resources.
Create health check

Domain registration
A domain is the name, such as example.com, that your users use to access your application.
Register domain

Readiness check
0
Readiness checks

Routing control
0
Control panels

Register domain

Find and register an available domain, or transfer your existing domains to Route 53.

Enter a domain name

Each label (each part between dots) can be up to 63 characters long and must start with a-z or 0-9. Maximum length: 255 characters, including dots. Valid characters: a-z, 0-9, and - (hyphen)

Check

Notifications

Record for hariharan.link was successfully created.

hariharan.link Info

Delete zone | Test record | Configure query logging

Hosted zone details

Edit hosted zone

Records (3) | DNSSEC signing | Hosted zone tags (0)

Records (3) Info

Automatic mode is the current search behavior optimized for best filter results. To change modes go to settings.

Delete record | Import zone file | Create record

Filter records by property or value | Type | Routing policy | Alias | 1

Record name	Type	Routin...	Differ...	Value/Route traffic to
hariharan.link	NS	Simple	-	ns-1467.awsdns-55.org. ns-1738.awsdns-25.co.uk. ns-424.awsdns-53.com. ns-910.awsdns-49.net.
hariharan.link	SOA	Simple	-	ns-1467.awsdns-55.org. awsdns-hostmaster.amazon.com. 1 7200 900 1209600 86400
awsassignment.hariharan.link	A	Simple	-	52.207.237.243

0 records selected

Apache2 Ubuntu Default Page

ubuntu

It works!

This is the default welcome page used to test the correct operation of the Apache2 server after installation on Ubuntu systems. It is based on the equivalent page on Debian, from which the Ubuntu Apache packaging is derived. If you can read this page, it means that the Apache HTTP server installed at this site is working properly. You should **replace this file** (located at `/var/www/html/index.html`) before continuing to operate your HTTP server.

If you are a normal user of this web site and don't know what this page is about, this probably means that the site is currently unavailable due to maintenance. If the problem persists, please contact the site's administrator.

Configuration Overview

Ubuntu's Apache2 default configuration is different from the upstream default configuration, and split into several files optimized for interaction with Ubuntu tools. The configuration system is **fully documented in /usr/share/doc/apache2/README.Debian.gz**. Refer to this for the full documentation. Documentation for the web server itself can be found by accessing the **manual** if the `apache2-doc` package was installed on this server.

The configuration layout for an Apache2 web server installation on Ubuntu systems is as follows:

```
/etc/apache2/
|-- apache2.conf
|       `--  ports.conf
|-- mods-enabled
|       |-- *.load
|       `-- *.conf
|-- conf-enabled
|       `-- *.conf
|-- sites-enabled
|       `-- *.conf
```

- `apache2.conf` is the main configuration file. It puts the pieces together by including all remaining configuration files when starting up the web server.
- `ports.conf` is always included from the main configuration file. It is used to determine the listening ports for incoming connections, and this file can be customized anytime.
- Configuration files in the `mods-enabled/`, `conf-enabled/` and `sites-enabled/` directories contain particular configuration snippets which manage modules, global configuration fragments, or virtual host configurations, respectively.
- They are activated by symlinking available configuration files from their respective *-available/ counterparts. These should be managed by using our helpers `a2enmod, a2dismod, a2ensite, a2dissite,` and `a2enconf, a2disconf` . See their respective man pages for detailed information.
- The binary is called apache2. Due to the use of environment variables, in the default configuration, apache2 needs to be started/stopped with `/etc/init.d/apache2` or `apache2ctl`. **Calling `/usr/bin/apache2` directly will not work** with the default configuration.

Document Roots