

ASSIGNMENT-16

Manage Amazon DNS Service and run a project using domain-name and URL.

Step 1: Sign in to your AWS Account as Root User. Create an EC2 instance using Security Group and User data.

Instances (2) Info

Find instance by attribute or tag (case-sensitive)

Refresh

Connect

Instance state ▾

Actions ▾

Launch instances

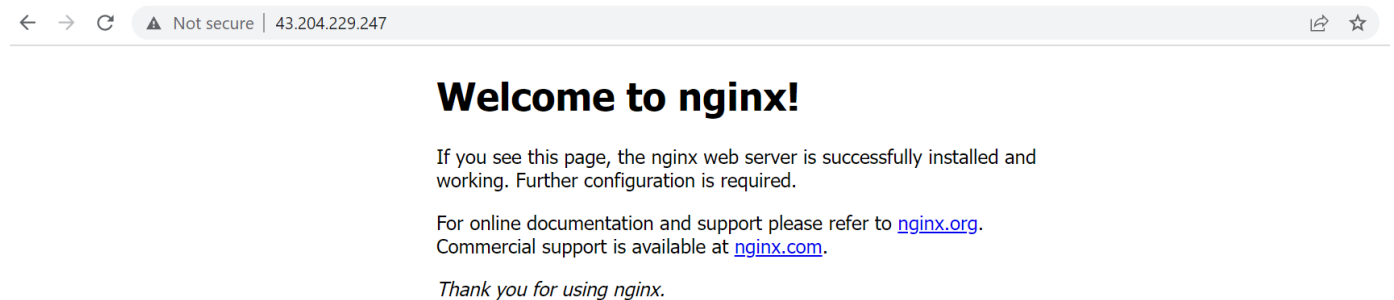
▾

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<input type="checkbox"/>	Name ▾	Instance ID	Instance state ▾	Instance type ▾	Status check	Alarm status	Availability Zone ▾	Public IPv4 DNS ▾
<input type="checkbox"/>	MyEC2server	i-0ad5a0e16d088fbfa	<div><div>Running</div><div>🔍</div></div>	t2.micro	<div><div>2/2 checks passed</div></div>	No alarms +	ap-south-1b	ec2-43-204-229-247.ap...

Step 2: Open the instance. Copy the Public IPv4 address and open it in a new tab. We can see that our nginx server is working properly.



And if we give our port number after the address, our project content in also available.



But everytime we have to use the public IPv4 address to open our project in the server. The end-users may find it complicated. To solve this problem, we can bind the domain name to the server instance. Now anyone can use the domain name and the URL to access our project. Follow the following steps to do so.

Step 3: Go to your domain server and sign in.

The screenshot shows the Namecheap dashboard for the domain **atreyee.me**. The left sidebar contains navigation links: Dashboard, Expiring / Expired, Domain List (selected), Hosting List, Private Email, SSL Certificates, Apps, and Profile. The top navigation bar includes links for Domains, Hosting, WordPress, Email, Apps, Security, Transfer to Us, Help Center, and Account, with 'NEW' badges above Domains, Email, Apps, and Security, and a 'TRY ME' badge above Transfer to Us.

The main content area is titled 'Domains → Details' and features a tabbed interface with 'Domain' selected. Below the tabs, there are three sections:

- STATUS & VALIDITY:** Shows the domain is 'ACTIVE' with a validity period from May 28, 2023, to May 28, 2024. It includes an 'ADD YEARS' button and an 'AUTO-RENEW' toggle.
- WithheldforPrivacy:** Shows the domain is protected with a validity period from May 28, 2023, to May 28, 2024. It includes an 'ADD YEARS' button, an 'AUTO-RENEW' toggle, and a 'SHOW DETAILS' link.
- PremiumDNS:** A section to enable PremiumDNS protection for 100% DNS uptime and DDoS protection. It includes a 'BUY NOW' button.

Below these sections is the **NAMESERVERS** section, which shows 'Custom DNS' as the selected option. It lists 'Nameserver 1' and 'Nameserver 2' with input fields and an 'ADD NAMESERVER' button.

Step 4: Search for “Route 53”. Then go to “Create hosted zone”.

The screenshot shows the AWS Route 53 Dashboard. The breadcrumb navigation at the top reads 'Route 53 > Dashboard'. The main heading is 'Route 53 Dashboard' with an 'Info' link.

The dashboard is divided into four columns, each with a title, description, and a primary action button:

- DNS management:** A hosted zone tells Route 53 how to respond to DNS queries for a domain such as example.com. Action: **Create hosted zone**.
- Traffic management:** A visual tool that lets you easily create policies for multiple endpoints in complex configurations. Action: **Create policy**.
- Availability monitoring:** Health checks monitor your applications and web resources, and direct DNS queries to healthy resources. Action: **Create health check**.
- Domain registration:** A domain is the name, such as example.com, that your users use to access your application. Action: **Register domain**.

Step 5: Provide your domain name there. And select type as “Public hosted zone”. Then click on “ Create hosted zone”.

[Route 53](#) > [Hosted zones](#) > [Create hosted zone](#)

Create hosted zone [Info](#)

Hosted zone configuration

A hosted zone is a container that holds information about how you want to route traffic for a domain, such as example.com, and its subdomains.

Domain name [Info](#)

This is the name of the domain that you want to route traffic for.

Valid characters: a-z, 0-9, ! " # \$ % & ' () * + , - / : ; < = > ? @ [\] ^ _ ` { | } . ~

Description - optional [Info](#)

This value lets you distinguish hosted zones that have the same name.

The description can have up to 256 characters. 0/256

Type [Info](#)

The type indicates whether you want to route traffic on the internet or in an Amazon VPC.



Public hosted zone

A public hosted zone determines how traffic is routed on the internet.



Private hosted zone

A private hosted zone determines how traffic is routed within an Amazon VPC.

Tags [Info](#)

Apply tags to hosted zones to help organize and identify them.

No tags associated with the resource.

You can add up to 50 more tags.

[Cancel](#)

[Create hosted zone](#)

Step 6: We can see that two types of Record is generated. One is NS and the other one is SOA. Now click on “Create record”.

atreyee.me was successfully created.
Now you can create records in the hosted zone to specify how you want Route 53 to route traffic for your domain.

Route 53 > Hosted zones > atreyee.me

Public atreyee.me

Delete zoneTest recordConfigure query logging

Hosted zone details

Edit hosted zone

Records (2)

DNSSEC signing

Hosted zone tags (0)

Records (2)

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

RefreshDelete recordImport zone fileCreate record

Filter records by property or value

TypeRouting policyAlias

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<input type="checkbox"/>	Record ...	Type	Routin...	Differ...	Alias	Value/Route traffic to	TTL (s...	Health ...	Evalua...	Record ID
<input type="checkbox"/>	atreyee.me	NS	Simple	-	No	ns-1410.awsdns-48.org. ns-677.awsdns-20.net. ns-1961.awsdns-53.co.uk. ns-427.awsdns-53.com.	172800	-	-	-
<input type="checkbox"/>	atreyee.me	SOA	Simple	-	No	ns-1410.awsdns-48.org. aws...	900	-	-	-

Step 7: Keep the “Record name” space empty. Select the “Record type”-A. Under “Value”, give the public IPv4 address of the instance which you want to route to using your DNS. Give TTL -300 seconds. Then click on “Click records”.

Create record

Quick create record

Switch to wizard

Record 1

Delete

Record name

subdomain atreyee.me

Keep blank to create a record for the root domain.

Record type

A – Routes traffic to an IPv4 address and some AWS resources

Alias

Value

43.204.229.247

Enter multiple values on separate lines.

TTL (seconds)

300

1m1h1d

Recommended values: 60 to 172800 (two days)

Routing policy

Simple routing

Add another record

CancelCreate records

Step 8: One new record of type A is created. Then again go to “Create record”.

Route 53 > Hosted zones > atreyee.me

Public atreyee.me 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. Refresh Delete record Import zone file Create record

Filter records by property or value Type Routing policy Alias < 1 > ⚙

<input type="checkbox"/>	Record ...	Type	Routin...	Differ...	Alias	Value/Route traffic to	TTL (s...	Health ...	Evalu...	Record ID
<input type="checkbox"/>	atreyee.me	A	Simple	-	No	43.204.229.247	300	-	-	-
<input type="checkbox"/>	atreyee.me	NS	Simple	-	No	ns-1410.awsdns-48.org. ns-677.awsdns-20.net. ns-1961.awsdns-53.co.uk. ns-427.awsdns-53.com.	172800	-	-	-
<input type="checkbox"/>	atreyee.me	SOA	Simple	-	No	ns-1410.awsdns-48.org. aws...	900	-	-	-

Step 9: Now give the “Record name” as www. Select the “Record type”- CNAME. Under “Value”, give your domain name. Give TTL -300 seconds. Then click on “Click records”.

Route 53 > Hosted zones > atreyee.me > Create record

Create record Info

Quick create record Switch to wizard

Record 1 Delete

Record name Info .atreyee.me Record type Info CNAME – Routes traffic to another domain name and to some AWS reso... ▼

Keep blank to create a record for the root domain.

☐ Alias

Value Info atreyee.me

Enter multiple values on separate lines.

TTL (seconds) Info 300 1m 1h 1d Routing policy Info Simple routing ▼

Recommended values: 60 to 172800 (two days)

Add another record

Cancel Create records

Step 10: Now another record of type CNAME is created.

Record for atreyee.me was successfully created.
Route 53 propagates your changes to all of the Route 53 authoritative DNS servers within 60 seconds. Use "View status" button to check propagation status.

Route 53 > Hosted zones > atreyee.me

Public atreyee.me Info

Delete zoneTest recordConfigure query logging

Hosted zone details

Edit hosted zone

Records (4)DNSSEC signingHosted zone tags (0)

Records (4) Info

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

Filter records by property or value

TypeRouting policyAlias

< 1 >

	Record ...	Type	Routin...	Differ...	Alias	Value/Route traffic to	TTL (s...	Health ...	Evalua...	Record ID
<input type="checkbox"/>	atreyee.me	A	Simple	-	No	43.204.229.247	300	-	-	-
<input type="checkbox"/>	atreyee.me	NS	Simple	-	No	ns-1410.awsdns-48.org. ns-677.awsdns-20.net. ns-1961.awsdns-53.co.uk. ns-427.awsdns-53.com.	172800	-	-	-
<input type="checkbox"/>	atreyee.me	SOA	Simple	-	No	ns-1410.awsdns-48.org. aws...	900	-	-	-
<input type="checkbox"/>	www.atrey...	CNAME	Simple	-	No	atreyee.me	300	-	-	-

RefreshDelete recordImport zone fileCreate record

Step 11: Now select the record of type NS. You can see four values are coming on the right-side.

Public atreyee.me Info

Delete zoneTest recordConfigure query logging

Hosted zone details

Edit hosted zone

Records (4)DNSSEC signingHosted zone tags (0)

Records (1/4) Info

The following table lists the existing records in atreyee.me. You can't delete the SOA record or the NS record named atreyee.me.

RefreshDelete recordImport zone fileCreate record

Filter records by property or value

TypeRouting policyAlias

< 1 >

	Record ...	Type	Routin...	Differ...	Alias	Value/Route traffic to	TTL (s...	Health
<input type="checkbox"/>	atreyee.me	A	Simple	-	No	43.204.229.247	300	-
<input checked="" type="checkbox"/>	atreyee.me	NS	Simple	-	No	ns-1410.awsdns-48.org. ns-677.awsdns-20.net. ns-1961.awsdns-53.co.uk. ns-427.awsdns-53.com.	172800	-
<input type="checkbox"/>	atreyee.me	SOA	Simple	-	No	ns-1410.awsdns-48.org. aws...	900	-
<input type="checkbox"/>	www.atrey...	CNAME	Simple	-	No	atreyee.me	300	-

Record details

Edit record

Record name

atreyee.me

Record type

NS

Value

ns-1410.awsdns-48.org.
ns-677.awsdns-20.net.
ns-1961.awsdns-53.co.uk.
ns-427.awsdns-53.com.

Alias

No

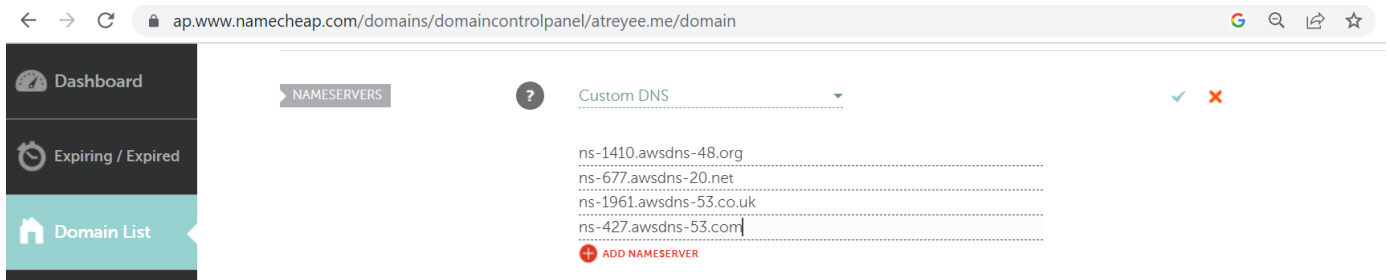
TTL (seconds)

172800

Routing policy

Simple

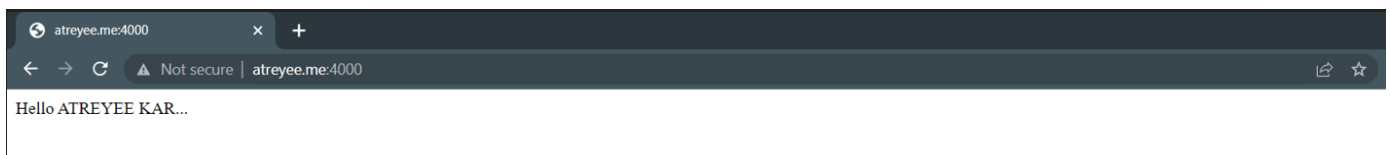
Step 12: Now go to your domain server. Then go to the “Nameservers” section and paste those values there one by one. Then save it.



Step 13: Now wait for few minutes and check whether your domain is working or not.



Step 14: Then provide your port number and check whether your project content is showing or not.



Thus, we have successfully managed Amazon DNS service and run our project using domain-name and URL.