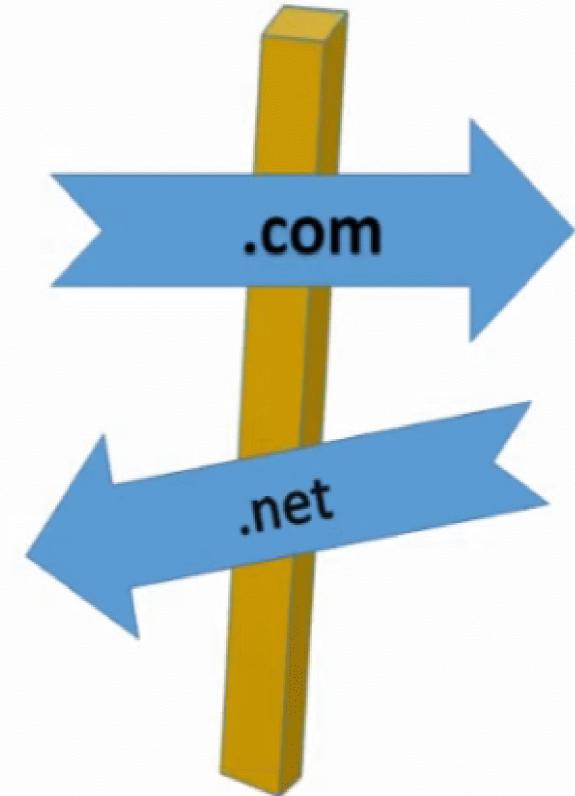


# Basics of DNS



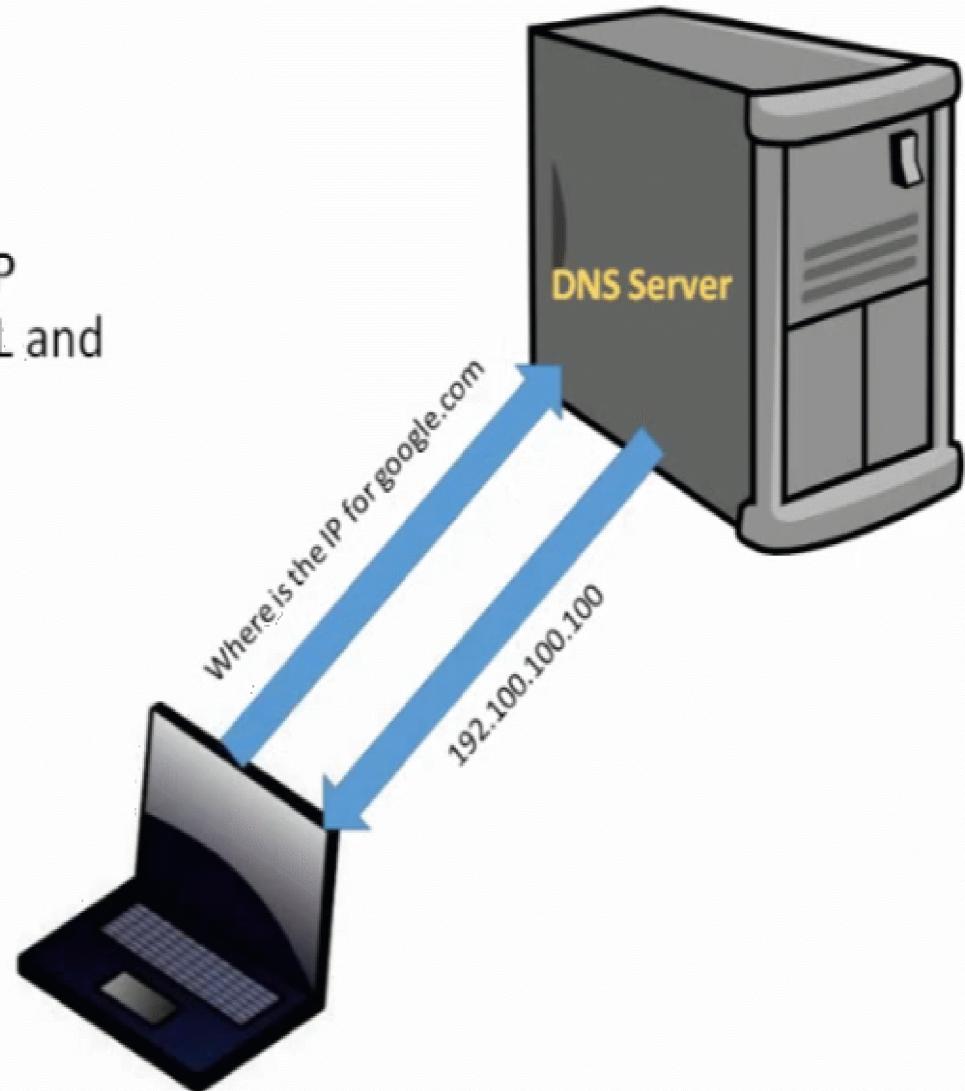
# What is DNS ?

- DNS- Domain Name System
- Solves the method of converting Numeric IP addressing to Human Readable friendly URL and vice versa
- Acts like a phone book/contact directory , maintain the name of the person against numbers

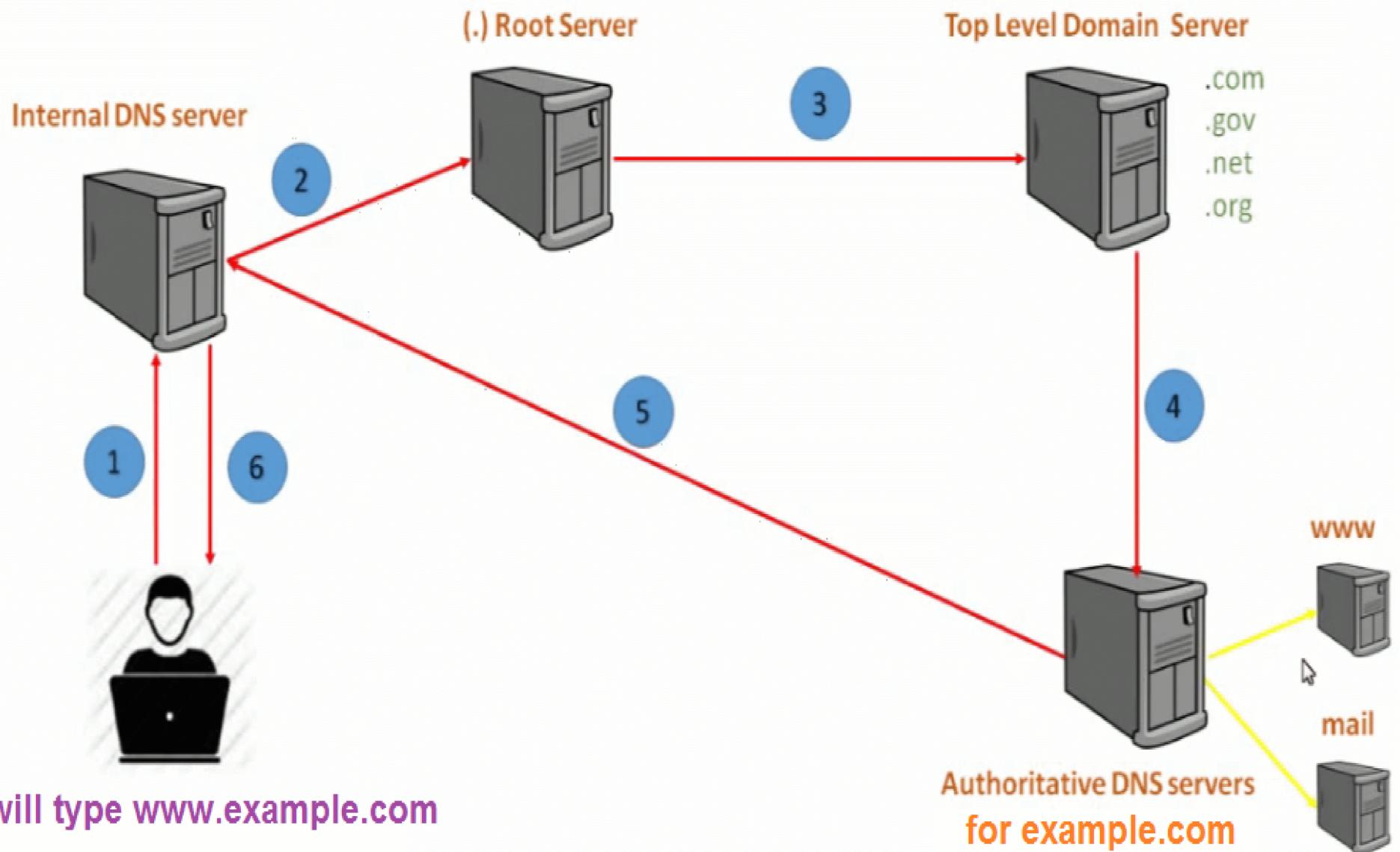
192.168.100.200 <-----> [www.example.com](http://www.example.com)

||

[www.example.com](http://www.example.com) <-----> 192.168.100.200



# How DNS work?



# DNS RECORD TYPES

DNS have many records but following record are commonly used

- A Record
- CNAME Record
- Alias Records

# A record

- An A record maps a domain name to the IP address (IPv4) and AAAA maps to IPv6 for computer hosting the domain

Ex: When you visit a website, you enter www.mysimplepage.com.

At name server there is an A record that points to the IP address 202.83.54.213.

- This means that a request from your browser to www.mysimplepage.com. is directed to the server with IP address 202.83.54.213



# CNAME record

- **CNAME** stands for Canonical Name
- A CNAME records is used to alias one name to another
- A CNAME (Canonical Name) points one domain or subdomain to another domain name, allowing you to update one A Record each time you make a change, regardless of how many Host Records need to resolve to that IP address

mobile.mysimplepage.com	CNAME	www.mysimplepage.com
m.mysimplepage.com	CNAME	www.mysimplepage.com
www.mysimplegpage.com	A	202.83.54.213. ↴

# NS records

- A NS records specifies authoritative name-servers for the registered domain

Ex:

mysimplepage.com.	NS	ns1.mysimplepage.com.
mysimplepage.com.	NS	ns2.mysimplepage.net.
mysimplepage.com.	NS	ns3.mysimplepage.org.
mysimplepage.com.	NS	ns4.mysimplepage.co.in.

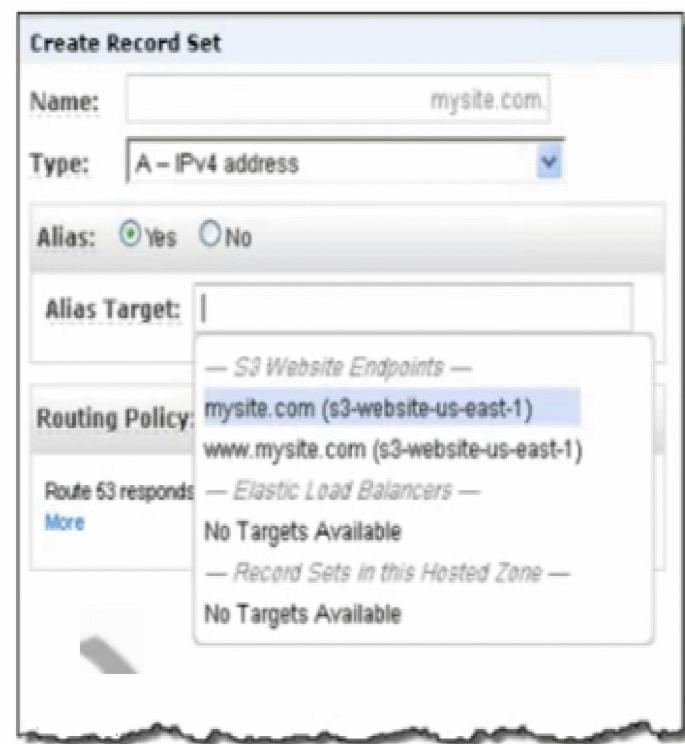
ns1.mysimplepage.net.	A	202.83.54.213
ns2.mysimplepage.org.	A	202.83.54.214
ns3.mysimplepage.co.in.	A	202.83.54.215

# Why ALIAS record ?

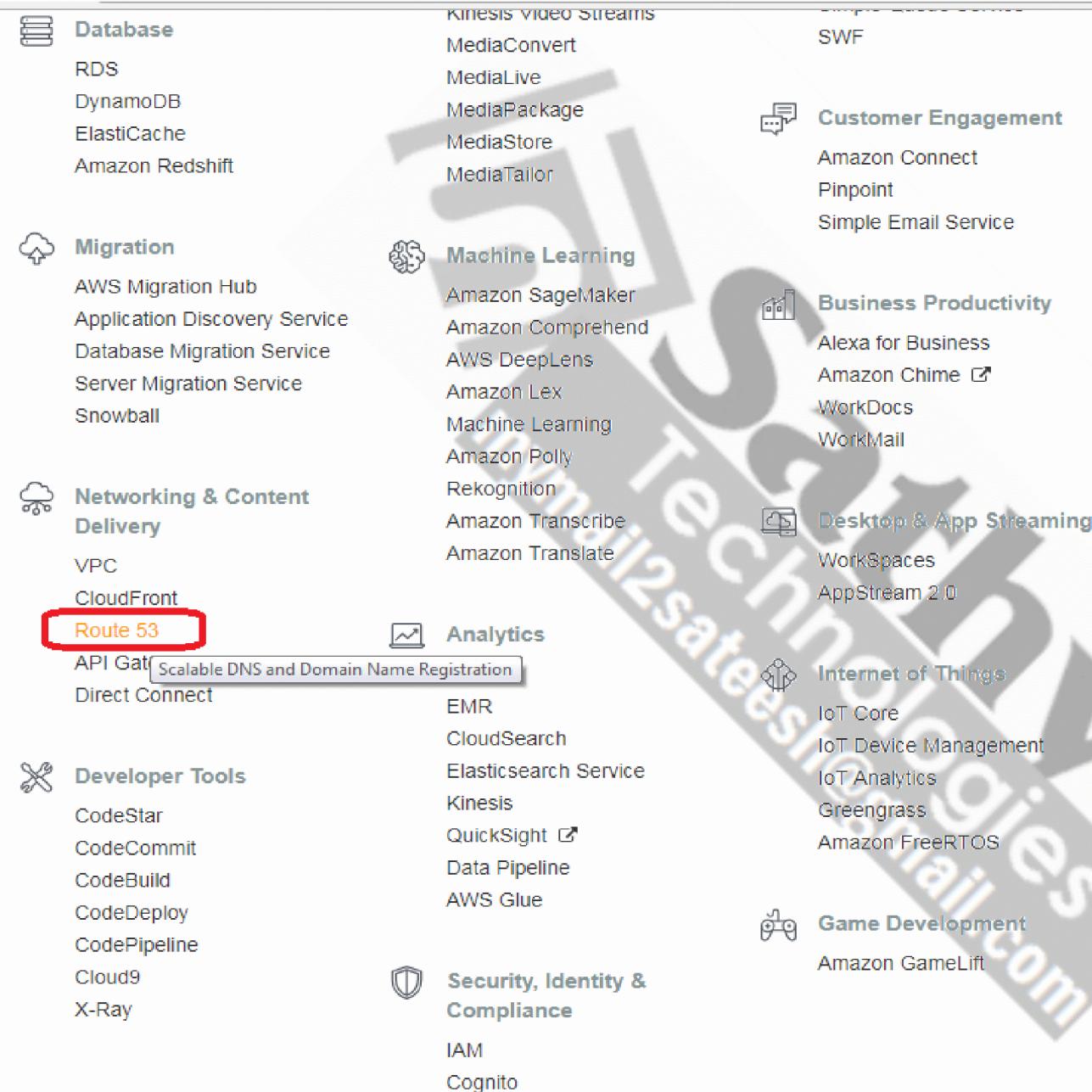


# ALIAS record

- AWS offers Alias records, which are to map resource record sets in AWS hosted zone
- Mapped AWS resources include ELB, CloudFront distributions, Elastic Beanstalk environments, or S3 buckets that are configured as websites
- Alias records work like a CNAME record in that you can map one DNS name (mysimplepage.com) to another 'target' DNS name (elb111222.elb.amazonaws.com)
- They differ from a CNAME record in that they are not visible to resolvers
- Resolvers only see the A record and the resulting IP address of the target record



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Stream and analyze real-time data, so you can get timely insights and react quickly. [Learn more.](#)

## Get Started with Containers on AWS

Amazon ECS helps you build and scale containers for any size application. [Learn more.](#)

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Discover, procure, and deploy popular software products that run on AWS. [Learn more.](#)

## Have feedback?

Submit feedback to tell us about your experience with the AWS Management Console.



## Amazon Route 53

You can use Amazon Route 53 to register new domains, transfer existing domains, route traffic for your domains to your AWS and external resources, and monitor the health of your resources.



### DNS management

If you already have a domain name, such as example.com, Route 53 can tell the Domain Name System (DNS) where on the Internet to find web servers, mail servers, and other resources for your domain.

[Learn More](#)

[Get started now](#)



### Traffic management

Route 53 traffic flow provides a visual tool that you can use to create and update sophisticated routing policies to route end users to multiple endpoints for your application.

[Learn More](#)

[Get started now](#)



### Availability monitoring

Route 53 can monitor the health and performance of your application as well as your web servers and other resources. Route 53 can also redirect traffic to healthy resources.

[Learn More](#)

[Get started now](#)



### Domain registration

If you need a domain name, you can find an available name and register it by using Route 53. You can also make Route 53 the registrar for existing domains that you registered with other registrars.

[Learn More](#)

[Get started now](#)

The screenshot shows the AWS Route 53 service page. On the left, there's a sidebar with navigation links: Dashboard, Hosted zones, Health checks, Traffic flow, Traffic policies, Policy records, Domains, Registered domains (which is selected and highlighted in orange), and Pending requests. The main content area has three tabs at the top: Register Domain (highlighted with a red box), Transfer Domain, and Domain Billing Report. Below the tabs is a search bar labeled "Search domains by prefix". A large message "No domains to display" is centered. At the bottom of the page, there are footer links for Feedback, English (US), Copyright notice (© 2008 - 2018, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved.), Privacy Policy, and Terms of Use.



1: Domain Search

## Choose a domain name

2: Contact Details

satishkumardevops

.com - \$12.00

Check

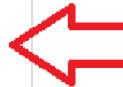
3: Verify &amp; Purchase

## Availability for 'satishkumardevops.com'

Domain Name	Status	Price / 1 Year	Action
satishkumardevops.com	✓ Available	\$12.00	<a href="#">Add to cart</a>



Shopping cart



## Related domain suggestions

Domain Name	Status	Price / 1 Year	Action
besatishkumardevops.com	✓ Available	\$12.00	<a href="#">Add to cart</a>
itsatishkumardevops.com	✓ Available	\$12.00	<a href="#">Add to cart</a>
satishkumarcrm.com	✓ Available	\$12.00	<a href="#">Add to cart</a>
satishkumardevops.io	✓ Available	\$39.00	<a href="#">Add to cart</a>
satishkumardevops.link	✓ Available	\$10.00	<a href="#">Add to cart</a>
satishkumardevops.net	✓ Available	\$11.00	<a href="#">Add to cart</a>
satishkumardevops.org	✓ Available	\$12.00	<a href="#">Add to cart</a>
satishkumardevops.tv	✓ Available	\$32.00	<a href="#">Add to cart</a>
satishkumardevopsstudio.com	✓ Available	\$12.00	<a href="#">Add to cart</a>
satishkumarerp.com	✓ Available	\$12.00	<a href="#">Add to cart</a>

The screenshot shows the AWS Route 53 service dashboard. On the left sidebar, under the 'Hosted zones' section, there is a table with columns 'Name', 'Type', and 'Value'. One row in the table has 'ns' in the 'Name' column, 'NS' in the 'Type' column, and four values listed in the 'Value' column: 'ns-1354.awsdns-41.org.', 'ns-74.awsdns-09.com.', 'ns-571.awsdns-07.net.', and 'ns-1922.awsdns-48.co.uk.'. A red box highlights the 'Create Record Set' button at the top of the main content area. Another red box highlights the 'Value' column in the table below. Red annotations provide instructions: '(select your domain name)' points to the 'Name' field in the 'Create Record Set' dialog, '\* TTL (time to live) select session time' points to the 'TTL (Seconds)' dropdown, and '\* allocate public ip of EC2 instance' points to the 'Value' input field.

Services ▾ Resource Groups ▾

Dashboard Hosted zones Health checks Traffic flow Traffic policies Policy records Domains Registered domains Pending requests

Back to Hosted Zones Create Record Set Import Zone File Delete Record Set Test Record Set

Record Set Name X Any Type Aliases Only Weighted Only

Displaying 1 to 2 out of 2 Record Sets

Name	Type	Value
ns	NS	ns-1354.awsdns-41.org. ns-74.awsdns-09.com. ns-571.awsdns-07.net. ns-1922.awsdns-48.co.uk.

Create Record Set

Name: www example.com

Type: A - IPv4 address

Alias:  Yes  No

TTL (Seconds): 300 1m 5m 1h 1d

Value: 185.136.45.32

IPv4 address. Enter multiple addresses on separate lines.

Example:  
192.0.2.235  
198.51.100.234

\* allocate public ip of EC2 instance

Routing Policy: Simple

Route 53 responds to queries based only on the values in this record. Learn More

Create