HI-TECH INSTITUTION

CORPORATE CAREER ENHANCEMENT TRAININGS

OUR ROOT LEVEL
TRAINING WILL
GIVE YOU BETTER
GROWTH

ABOUT US

Our Vision:

To provide better training by full filing the requirements of our trainee.

Our Mission:

We always ensure to give practical based training. And we make the candidates to get good hands-on experience on any platform.

Philosophy:

Our Root Level Training Will give you Better Growth.

We successfully survived around 5 years in the IT field. Started this is as small Training room. But now we are having 5 branches across India.

Certified Trainers taking the session on various domain with any level of doubts clarification.

For More Details: **www.hitechins.in**

Write feedback to **operations@hitechins.in**

Amazon Route 53

Amazon Route 53 is a highly available and scalable Domain Name System (DNS) web service. You can use Route 53 to perform three main functions in any combination: domain registration, DNS routing, and health checking. If you choose to use Route 53 for all three functions, perform the steps in this order:

1. Register domain names
2. Route internet traffic to the resources for your domain
3. Check the health of your resources

Domain Registration Concepts

Domain name

The name, such as example.com, that a user types in the address bar of a web browser to access a website or a web application. To make your website or web application available on the internet, you start by registering a domain name. For more information, see How Domain Registration Works.

Domain registrar

A company that is accredited by ICANN (Internet Corporation for Assigned Names and Numbers) to process domain registrations for specific top-level domains (TLDs). For example, Amazon Registrar, Inc. is a domain registrar for .com, .net, and .org domains. Our registrar associate, Gandi, is a domain registrar for hundreds of TLDs, such as .apartments, .boutique, and .camera. For more information, see Domains That You Can Register with Amazon Route 53.

Domain registry

A company that owns the right to sell domains that have a specific top-level domain. For example, VeriSign is the registry that owns the right to sell domains that have a .com TLD. A domain registry defines the rules for registering a domain, such as residency requirements for a geographic TLD. A domain registry also maintains the authoritative database for all of the domain names that have the same TLD. The registry's database contains information such as contact information and the name servers for each domain.

Domain reseller

A company that sells domain names for registrars such as Amazon Registrar. Amazon Route 53 is a domain reseller for Amazon Registrar and for our registrar associate, Gandi.

Top-level domain (TLD)

The last part of a domain name, such as .com, .org, or .ninja. There are two types of top-level domains:

Generic top-level domains

These TLDs typically give users an idea of what they'll find on the website. For example, domain names that have a TLD of *.bike* often are associated with websites for motorcycle or bicycle businesses or organizations. With a few exceptions, you can use any generic TLD you want, so a bicycle club could use the .hockey TLD for their domain name.

Geographic top-level domains

These TLDs are associated with geographic areas such as countries or cities. Some registries for geographic TLDs have residency requirements, while others, such as .io, allow or even encourage use as a generic TLD.

Domain Name System (DNS) Concepts

alias record

A type of record that you can create with Amazon Route 53 to route traffic to AWS resources such as Amazon CloudFront distributions and Amazon S3 buckets. For more information, see Choosing Between Alias and Non-Alias Records.

authoritative name server

A name server that has definitive information about one part of the Domain Name System (DNS) and that responds to requests from a DNS resolver by returning the applicable information. For example, an authoritative name server for the .com top-level domain (TLD) knows the names of the name servers for every registered .com domain. When a .com authoritative name server receives a request from a DNS resolver for example.com, it responds with the names of the name servers for the DNS service for the example.com domain.

Route 53 name servers are the authoritative name servers for every domain that uses Route 53 as the DNS service. The name servers know how you want to route traffic for your domain and subdomains based on the records that you created in the hosted zone for the domain. (Route 53 name servers store the hosted zones for the domains that use Route 53 as the DNS service.)

For example, if a Route 53 name server receives a request for www.example.com, it finds that record and returns the IP address, such as 192.0.2.33, that is specified in the record.

DNS query

Usually a request that is submitted by a device, such as a computer or a smart phone, to the Domain Name System (DNS) for a resource that is associated with a domain name. The most common example of a DNS query is when a user opens a browser and types the domain name in the address bar. The response to a DNS query typically is the IP address that is associated with a resource such as a web server. The device that initiated the request uses the IP address to communicate with the resource. For example, a browser can use the IP address to get a web page from a web server.

DNS resolver

A DNS server, often managed by an internet service provider (ISP), that acts as an intermediary between user requests and DNS name servers. When you open a browser and enter a domain name in the address bar, your query goes first to a DNS resolver. The resolver communicates with DNS name servers to get the IP address for the corresponding resource, such as a web server. A DNS resolver is also known as a recursive name server because it sends requests to a sequence of authoritative DNS name servers until it gets the response (typically an IP address) that it returns to a user's device, for example, a web browser on a laptop computer.

Domain Name System (DNS)

A worldwide network of servers that help computers, smart phones, tablets, and other IP-enabled devices to communicate with one another. The Domain Name System translates easily understood names such as example.com into the numbers, known as *IP addresses*, that allow computers to find each other on the internet.

hosted zone

A container for records, which include information about how you want to route traffic for a domain (such as example.com) and all of its subdomains (such as www.example.com, retail.example.com, and seattle.accounting.example.com). A hosted zone has the same name as the corresponding domain.

For example, the hosted zone for example.com might include a record that has information about routing traffic for www.example.com to a web server that has the IP address 192.0.2.243, and a record that has information about routing email for example.com to two email servers, mail1.example.com and mail2.example.com. Each email server also requires its own record.

IP address

A number that is assigned to a device on the internet—such as a laptop, a smart phone, or a web server—that allows the device to communicate with other devices on the internet. IP addresses are in one of the following formats:

- Internet Protocol version 4 (IPv4) format, such as 192.0.2.44
- Internet Protocol version 6 (IPv6) format, such as 2001:0db8:85a3:0000:0000:abcd:0001:2345

Route 53 supports both IPv4 and IPv6 addresses for the following purposes:

- You can create records that have a type of A, for IPv4 addresses, or a type of AAAA, for IPv6 addresses.
- You can create health checks that send requests either to IPv4 or to IPv6 addresses.
- If a DNS resolver is on an IPv6 network, it can use either IPv4 or IPv6 to submit requests to Route 53.

name servers

Servers in the Domain Name System (DNS) that help to translate domain names into the IP addresses that computers use to communicate with one another. Name servers are either recursive name servers (also known as DNS resolver) or authoritative name servers.

private DNS

A local version of the Domain Name System (DNS) that lets you route traffic for a domain and its subdomains to Amazon EC2 instances within one or more Amazon virtual private clouds (VPCs).

record (DNS record)

An object in a hosted zone that you use to define how you want to route traffic for the domain or a subdomain. For example, you might create records for example.com and www.example.com that route traffic to a web server that has an IP address of 192.0.2.234.

routing policy

A setting for records that determines how Route 53 responds to DNS queries. Route 53 supports the following routing policies:

- **Simple routing policy** – Use to route internet traffic to a single resource that performs a given function for your domain, for example, a web server that serves content for the example.com website.
- **Failover routing policy** – Use when you want to configure active-passive failover.
- **Geolocation routing policy** – Use when you want to route internet traffic to your resources based on the location of your users.

- **Geoproximity routing policy** – Use when you want to route traffic based on the location of your resources and, optionally, shift traffic from resources in one location to resources in another.
- **Latency routing policy** – Use when you have resources in multiple locations and you want to route traffic to the resource that provides the best latency.
- **Multivalue answer routing policy** – Use when you want Route 53 to respond to DNS queries with up to eight healthy records selected at random.
- **Weighted routing policy** – Use to route traffic to multiple resources in proportions that you specify.

subdomain

A domain name that has one or more labels prepended to the registered domain name. For example, if you register the domain name example.com, then www.example.com is a subdomain. If you create the hosted zone accounting.example.com for the example.com domain, then seattle.accounting.example.com is a subdomain.

To route traffic for a subdomain, create a record that has the name that you want, such as www.example.com, and specify the applicable values, such as the IP address of a web server.

time to live (TTL)

The amount of time, in seconds, that you want a DNS resolver to cache (store) the values for a record before submitting another request to Route 53 to get the current values for that record. If the DNS resolver receives another request for the same domain before the TTL expires, the resolver returns the cached value.

A longer TTL reduces your Route 53 charges, which are based in part on the number of DNS queries that Route 53 responds to. A shorter TTL reduces the amount of time that DNS resolvers route traffic to older resources after you change the values in a record, for example, by changing the IP address for the web server for www.example.com.

Health Checking Concepts

DNS failover

A method for routing traffic away from unhealthy resources and to healthy resources. When you have more than one resource performing the same function—for example, more than one web server or mail server—you can configure Route 53 health checks to check the health of your resources and configure records in your hosted zone to route traffic only to healthy resources.

endpoint

> The resource, such as a web server or an email server, that you configure a health check to monitor the health of. You can specify an endpoint by IPv4 address (192.0.2.243), by IPv6 address (2001:0db8:85a3:0000:0000:abcd:0001:2345), or by domain name (example.com).
>
> Note
>
> You can also create health checks that monitor the status of other health checks or that monitor the alarm state of a CloudWatch alarm.

health check

> A Route 53 component that lets you do the following:
>
> - Monitor whether a specified endpoint, such as a web server, is healthy
> - Optionally, get notified when an endpoint becomes unhealthy
> - Optionally, configure DNS failover, which allows you to reroute internet traffic from an unhealthy resource to a healthy resource

Working with Hosted Zones

A hosted zone is a container for records, and records contain information about how you want to route traffic for a specific domain, such as example.com, and its subdomains (apex.example.com, acme.example.com). A hosted zone and the corresponding domain have the same name. There are two types of hosted zones:

- *Public hosted zones* contain records that specify how you want to route traffic on the internet.
- *Private hosted zones* contain records that specify how you want to route traffic in an Amazon VPC.

Working with Public Hosted Zones

A public hosted zone is a container that holds information about how you want to route traffic on the internet for a specific domain, such as example.com, and its subdomains (apex.example.com, acme.example.com). You get a public hosted zone in one of two ways:

- When you register a domain with Route 53, we create a hosted zone for you automatically.
- When you transfer DNS service for an existing domain to Route 53, you start by creating a hosted zone for the domain.

In both cases, you then create records in the hosted zone to specify how you want to route traffic for the domain and subdomains. For example, you might create a record to route traffic for www.example.com to a CloudFront distribution or to a web server in your data center.

To create a hosted zone using the Route 53 console

1. Sign in to the AWS Management Console and open the Route 53 console at https://console.aws.amazon.com/route53/.
2. If you're new to Route 53, choose **Get Started Now** under **DNS Management**. On the next page, choose **Create Hosted Zone**.

   If you're already using Route 53, choose **Hosted zones** in the navigation pane.

3. Choose **Create Hosted Zone**.
4. In the **Create Hosted Zone** pane, enter the name of the domain that you want to route traffic for. You can also optionally enter a comment.
5. For **Type**, accept the default value of **Public Hosted Zone**.
6. Choose **Create**.
7. Create records that specify how you want to route traffic for the domain and subdomains.

Getting the Name Servers for a Public Hosted Zone

Route 53 automatically assigns four name servers to your hosted zone. To ensure that the Domain Name System routes queries for your domain to the Route 53 name servers, update your registrar's or your DNS service's NS records for the domain to replace the current name servers with the names of the four Route 53 name servers for your hosted zone. The method that you use to update the NS records depends on which registrar or DNS service you're using.

Note

Some registrars only allow you to specify name servers using IP addresses; they don't allow you to specify fully qualified domain names. If your registrar requires using IP addresses, you can get the IP addresses for your name servers using the dig utility (for Mac, Unix, or Linux) or the nslookup utility (for Windows). We rarely change the IP addresses of name servers; if we need to change IP addresses, we'll notify you in advance.

To get the name servers for a hosted zone using the Route 53 console

1. Sign in to the AWS Management Console and open the Route 53 console at https://console.aws.amazon.com/route53/.
2. In the navigation pane, click **Hosted Zones**.
3. On the **Hosted Zones** page, choose the radio button (not the name) for the hosted zone.
4. In the right pane, make note of the four servers listed for **Name Servers**.

To delete a public hosted zone using the Route 53 console

1. Sign in to the AWS Management Console and open the Route 53 console at
   https://console.aws.amazon.com/route53/.
2. Confirm that the hosted zone that you want to delete contains only an NS and an SOA
   record. If it contains additional records, delete them:
   1. Choose the name of the hosted zone that you want to delete.
   2. On the Record Sets page, if the list of records includes any records for which the
      value of the **Type** column is something other than NS or SOA, choose the row,
      and choose **Delete Record Set**.
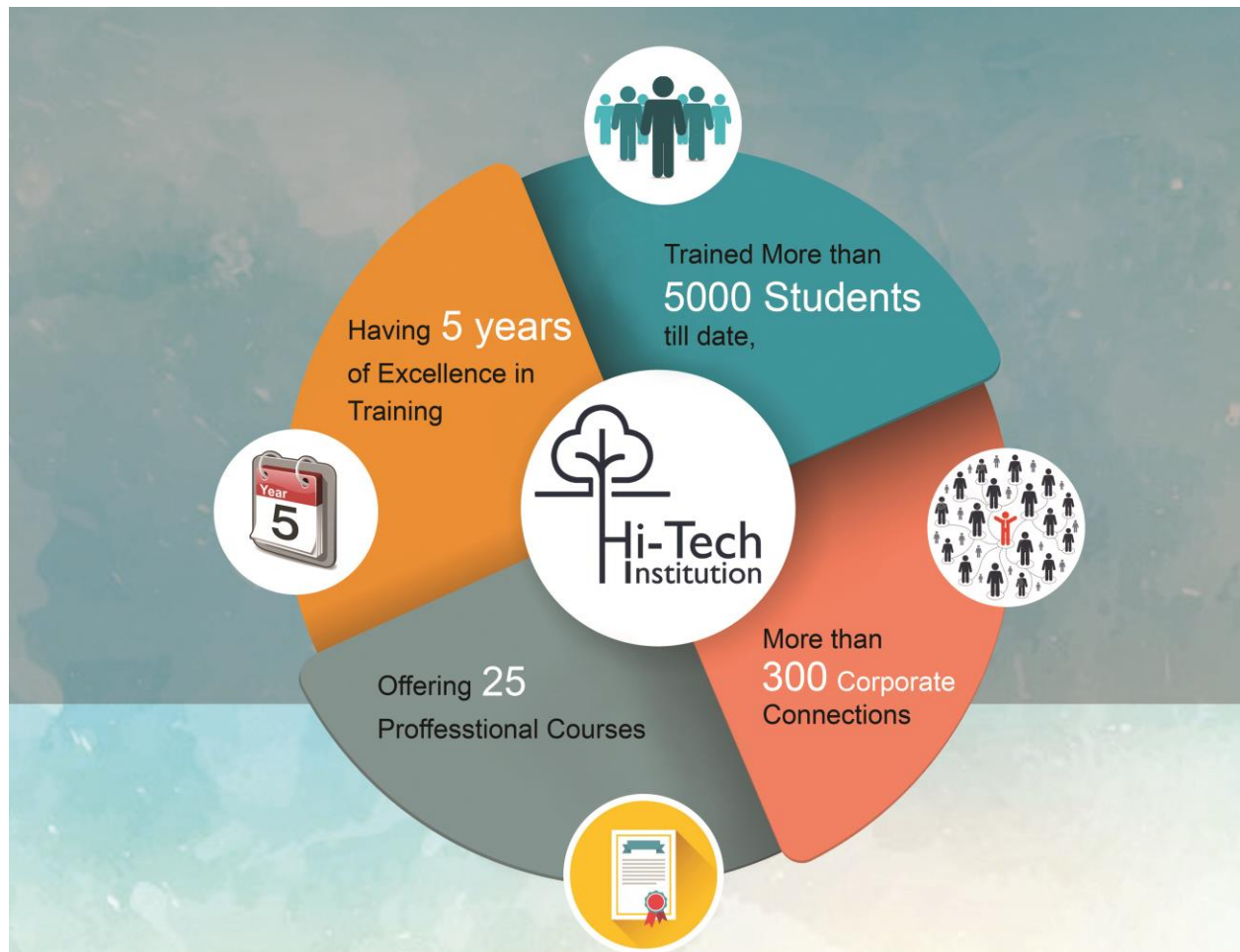
      To select multiple, consecutive records, choose the first row, press and hold the
      Shift key, and choose the last row. To select multiple, non-consecutive records,
      choose the first row, press and hold the **Ctrl** key, and choose the remaining rows.

      Note

      If you created any NS records for subdomains in the hosted zone, delete those
      records, too.

   3. Choose **Back to Hosted Zones**.
3. On the **Hosted Zones** page, choose the row for the hosted zone that you want to delete.
4. Choose **Delete Hosted Zone**.
5. Choose **OK** to confirm.

Having **5 years** of Excellence in Training

Trained More than **5000 Students** till date,

Offering **25** Proffesstional Courses

More than **300** Corporate Connections

Hi-Tech Institution

TOP RECRUITERS

Capgemini — CONSULTING.TECHNOLOGY.OUTSOURCING.
Mindtree — Welcome to possible
Tech Mahindra
MISYS — FINANCIAL SOFTWARE
EMC² sube FiS

L&T Technology Services
virtusa — Accelerating Business Outcomes
TRIGENT
HUAWEI
KENNAMETAL
HCL

Atbr
ALLEGIS GROUP
izmo
AWPL
Softtek
Infosys
BOSCH — Technik fürs Leben

hp
infinite
CGI
OpenText
IGATE — Speed. Agility. Imagination

Mellow infosystems
GLOBAL EDGE — Intelligence Of Things
ARTECH — GLOBAL WORKFORCE SOLUTIONS. MAXIMIZED.
Fonezela — virtual business assistant
CORPORATE LADDER

Simbus — Simplifying your Business
BENISON TECHNOLOGIES
BRISTLECONE — Your Supply Chain. Optimized.
THOUGHTFOCUS
and more...

15