Deploy a website part 2

Now that your domain name is associated with the correct name servers, it's time to create some additional DNS records within the Hosted Zone.
The records that we'll create will be used by the name servers to help locate your site when a computer wants to load it. Specifically, the name servers will be responsible for providing that computer with important information stored in the records.
There are several different types of DNS records.
We're going to start by creating an A record, which stands for Address record. An A record directs a domain name to an IP address. This record will associate our new custom domain name with Github's servers.
Instructions

1. Inside of your Hosted Zone, click on the button at the top labeled "Create Record Set." A form will appear to the right. Leave the "Name:" field blank. Set the "Type:" field to A - IPv4 address.

2. Leave the "TTL (Seconds)" value at the default of 300.

3. In the "Value" text box, enter the following IP addresses (keep them on separate lines):

192.30.252.153
192.30.252.154
These IP addresses belong to GitHub. We are specifying that when your custom domain name is requested, the DNS should direct the request to GitHub. Read more information about this here.
4. Click the "Save Record Set" button at the bottom of the form.

When setting up a website, it's also conventional to also set up a www subdomain. www stands for world wide web.
Subdomains are part of a main (or root) domain. For example, www.yourcustomdomain.com is a subdomain of the yourcustomdomain.com root domain.
We can set up a subdomain using a CNAME record, which stands for Canonical Name.
A **CNAME record specifies that a domain name will be used as an alias,** or substitute, for the true (canonical) domain name.

1. Inside of your Hosted Zone, click on the button at the top labeled "Create Record Set".
A form will appear to the right. In the "Name:" field, enter *only* www. Set the "Type: " field to **CNAME - Canonical name**. This step sets up the subdomain.
2. In the Value text box, enter the domain name that GitHub assigned to you

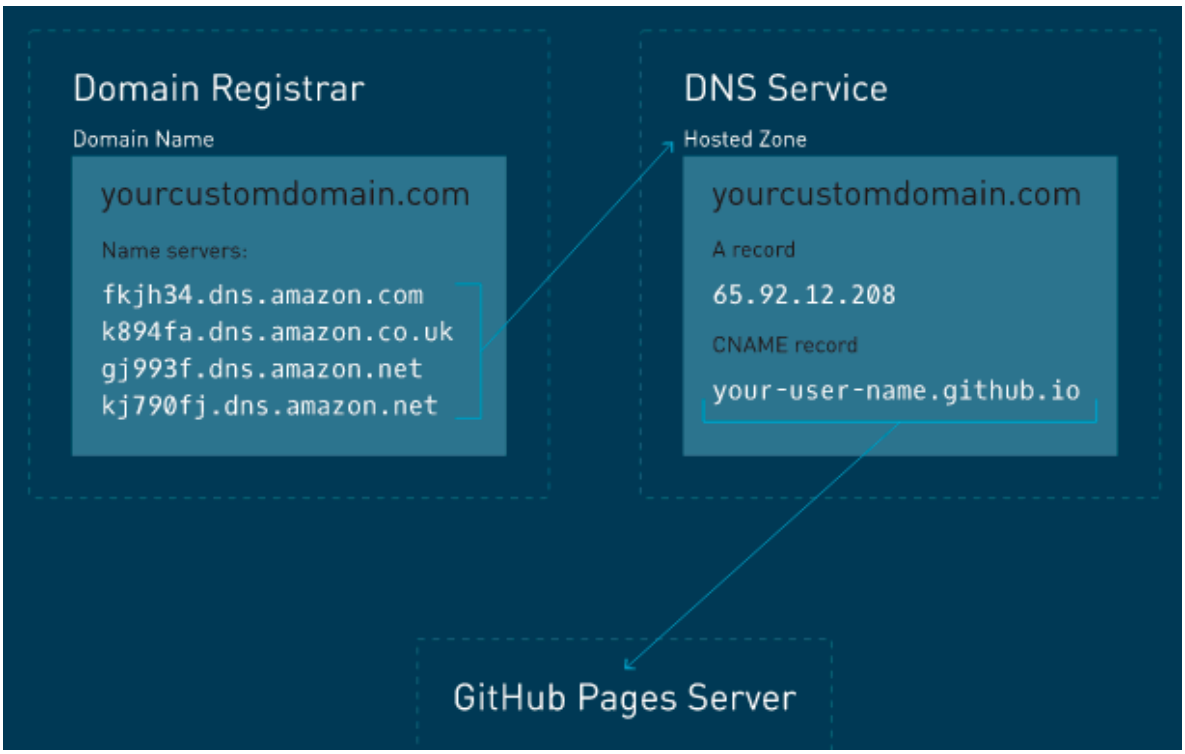
earlier (the canonical domain name:
your-user-name.github.io
3. Click the "Save Record Set" button at the bottom of the form.

In Route 53, your domain name's Hosted Zone contains the following:

1. The NS (Name Server) record for your domain name. When a domain name is typed into a browser, the DNS looks to these name servers to help direct the request.

2. The A (or Alias) record. This record is used to direct requests of your domain name to GitHub's servers using their IP addresses.

3. The CNAME (



4. or Canonical name) record. This record specifies what custom domain will point to your true (canonical) domain.

Observe the diagram to the right. It outlines the overall setup of your DNS records within Route 53.

1. You purchased a custom domain name through a Domain Registrar, which in this case, is Route 53.

2. Four unique name servers were assigned to your custom domain name after your purchase.

3. To assign your custom domain name to your web site, you had to set up a Hosted Zone with multiple DNS records for your custom domain name. The Hosted Zone was set up within Route 53.

4. Inside of the Hosted Zone, the NS record was created automatically for you by Route 53. However, you created the A record and the CNAME record.

5. This setup allows you to visit your personal website with your new custom domain name, even though it's hosted on GitHub!

Success! Your website should now display in the browser when you navigate to your custom domain name.
The DNS may take some time to update records. If your site still doesn't load in the browser using your custom domain name, simply wait a few minutes.
We can also use the dig command in the terminal to look up your domain name and make sure that the CNAME and A records were properly set.
The dig (domain information groper) command is a DNS lookup utility. It can be used for a variety of things. In this case, we will use it to verify your domain name's DNS records.

1. Let's confirm that your DNS records are correct. Type the following into the terminal:

dig www.yourcustomdomain.com

If all is correct, you should see an A (for A record) in the output along with the two IP addresses we added for the A record.
You should also see CNAME in the output along with your custom domain name and the GitHub default domain name.

Let's review the process we followed in this lesson:

1. Created an AWS account and accessed Route 53
2. Purchased a domain name
3. Accessed the Hosted Zone for that domain name
4. Confirmed the NS (name server) records
5. Created A and CNAME records
6. Used dig to display information about your domain name