

Seera Code Challenge

Version 1.0

Terraform 1.0.2

aws 3.51.0

Task & Requirements

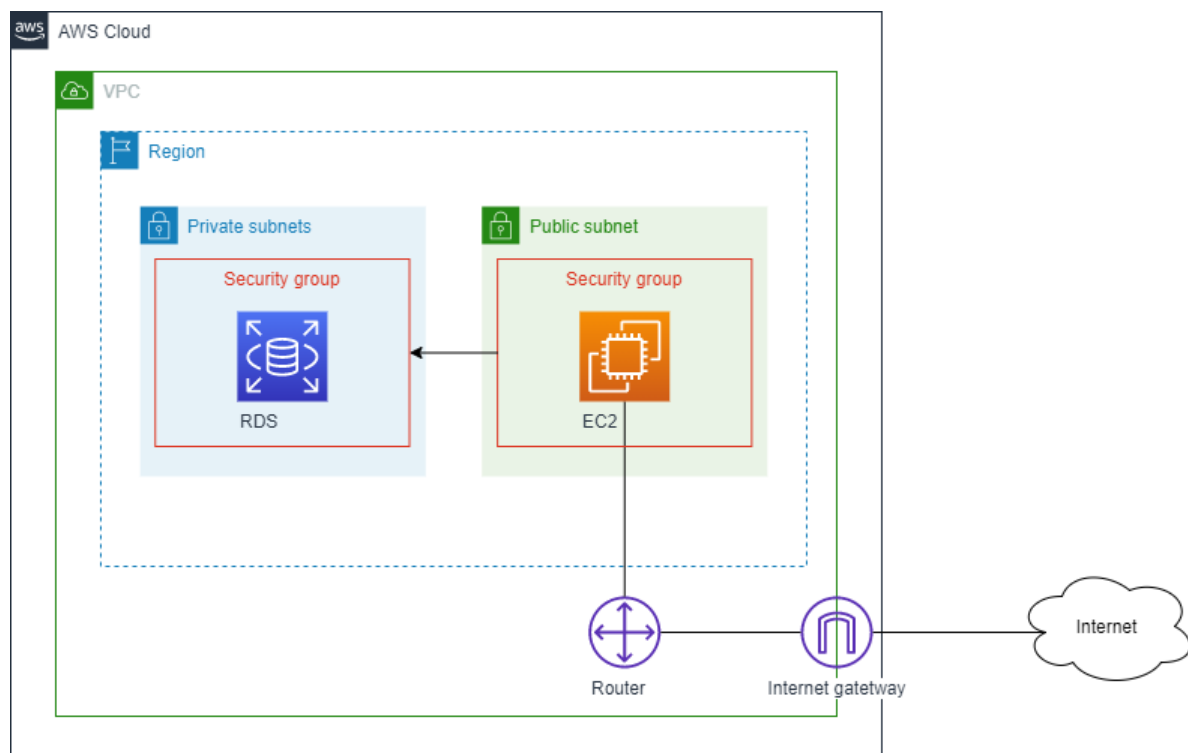
Bring up a WordPress stack using any of the infrastructures as code tools (Cloudformation / Terraform). This should create new VPC with subnets, route tables, etc. The database should use RDS.

The service should be fault tolerant (no need of HA). In case of a server failure, during termination of existing server, a new server should come up and configure everything automatically. The service should come back to existing state without any manual interventions.

For the WordPress app, you can use EC2 with standalone WordPress installation or Docker if you want to containerize it.

You can use any tools of your choice (CF, terraform, Ansible, Docker, Mesos, ECS, K8s, Shell scripts, boto, etc) to accomplish this task. Once the code is completed please push it to GitHub with instructions to bring up the stack. Please write those instructions as complete as possible, detailing any consideration you would like to explain regarding the solution, or any assumption we should take into consideration.

Network Architecture



Providers

Name	Version
terraform	>1.0.2
aws	>3.5.1
time	>0.7.2
null	>3.1.0

Usage

Variables

Even though there is no need you can change the variables in `dev.tfvars` to suite your needs. (the key names variables will affect the ssh key creation)

Steps

1. Create SSH Key

Go to the source directory:

```
1 | cd source
```

Run:

```
1 | ssh-keygen -t rsa -N "" -f id_seera
```

2. Create infrastructure and provision WordPress

Run the following commands one after another:

```
1 | terraform init
```

```
1 | terraform plan -var-file=dev.tfvars -out=tfplan
```

```
1 | terraform apply -auto-approve -input=false tfplan
```

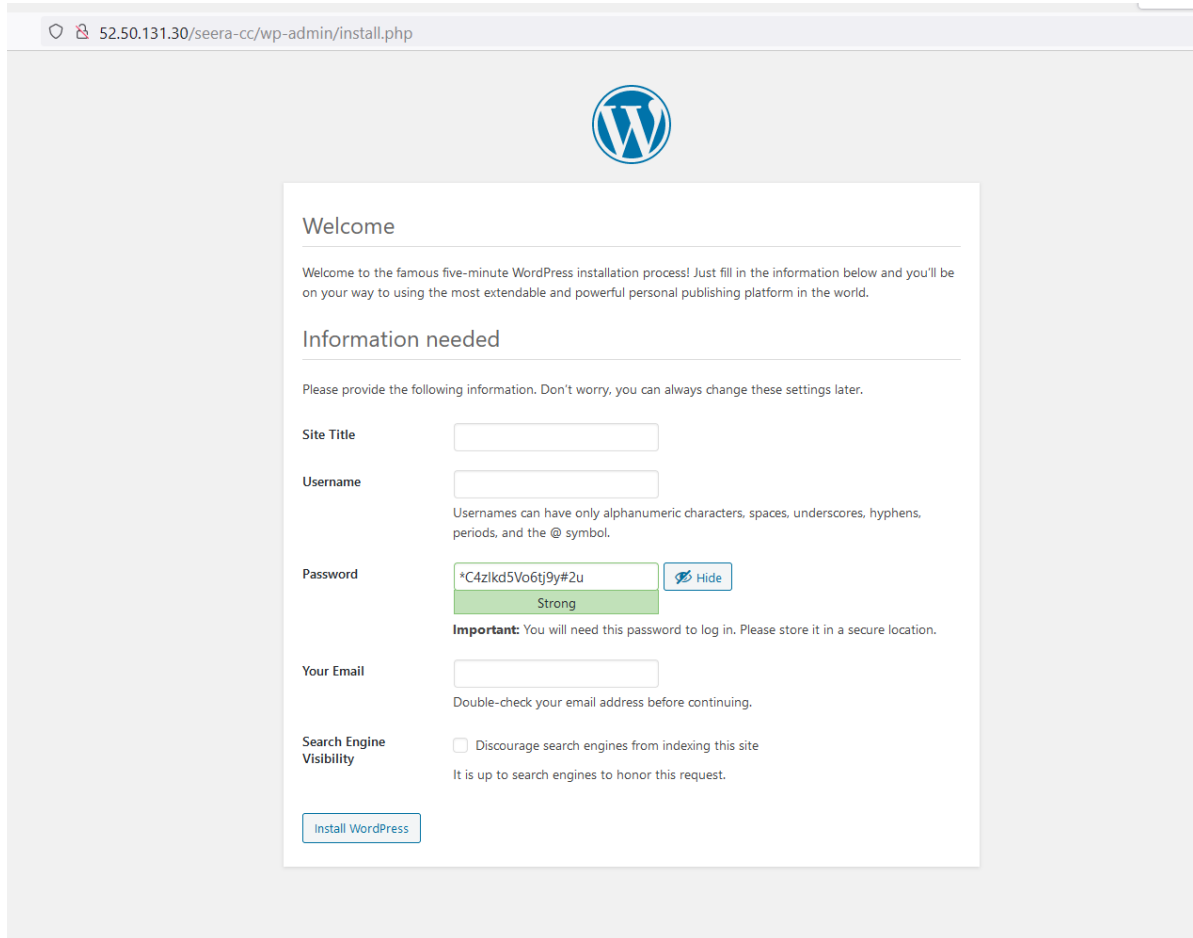
3. Look at the output from Terraform

Should look something like this:

```
Apply complete! Resources: 16 added, 0 changed, 0 destroyed.
Outputs:
db_access = "mysql -h seera-cc-db-instance.cqzglldhu4jyi.eu-west-1.rds.amazonaws.com -P 3306 -u user -p seeradb"
ssh_access = "ssh -i ./id_seera ubuntu@52.50.131.30"
web_access = "http://52.50.131.30/seera-cc"
jonas@PC-HOME-JONAS ~/Development/repos/seera-cc/source (main)
λ
```

4. Setup WordPress

Go to the link in the `web_access` output variable from the previous step and create your blog.



The screenshot shows a web browser window with the address bar displaying `52.50.131.30/seera-cc/wp-admin/install.php`. The page features the WordPress logo at the top center. Below the logo is a 'Welcome' section with a message: 'Welcome to the famous five-minute WordPress installation process! Just fill in the information below and you'll be on your way to using the most extendable and powerful personal publishing platform in the world.' This is followed by an 'Information needed' section. A note states: 'Please provide the following information. Don't worry, you can always change these settings later.' The form includes fields for 'Site Title', 'Username', 'Password', and 'Your Email'. The 'Password' field is filled with `*C4zld5Vo6tj9y#2u` and has a 'Hide' button. A green bar below the password indicates it is 'Strong'. An 'Important' note says: 'You will need this password to log in. Please store it in a secure location.' The 'Your Email' field is empty. Below the email field is a checkbox for 'Search Engine Visibility' with the label 'Discourage search engines from indexing this site'. A note below the checkbox says: 'It is up to search engines to honor this request.' At the bottom of the form is a button labeled 'Install WordPress'.

How to delete the resources

Run the following command to delete all resources created.

```
1 | terraform destroy -auto-approve -var-file=dev.tfvars
```

SSH Agent Problem

In the remote connection to the ec2 instance I used `agent = false` at line 294 in `main.tf`. I did it because I run git-bash on Windows 10 with no agent running.

I'm unaware if this might become a problem when running the script on Linux or OSX and having an agent running. If there is a problem with the last step of `main.tf` then change the variable to `agent = true`.