Cloud Computing project

Deploy a web server on a public cloud

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Present to

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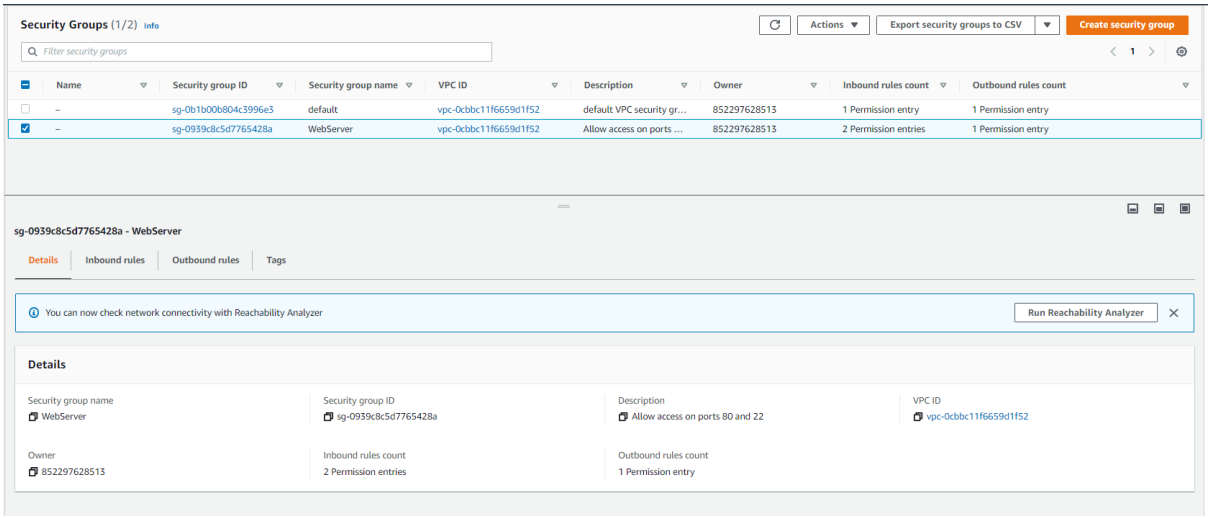
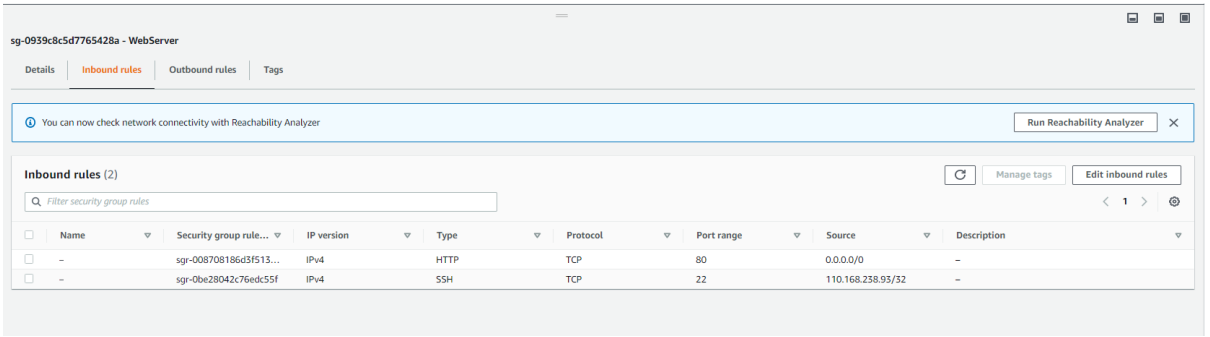
Contents

VPC: Security Groups

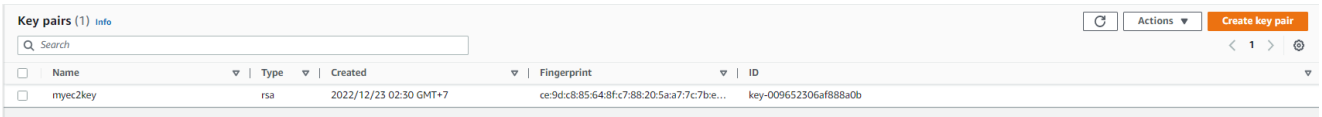
Name: WebServer





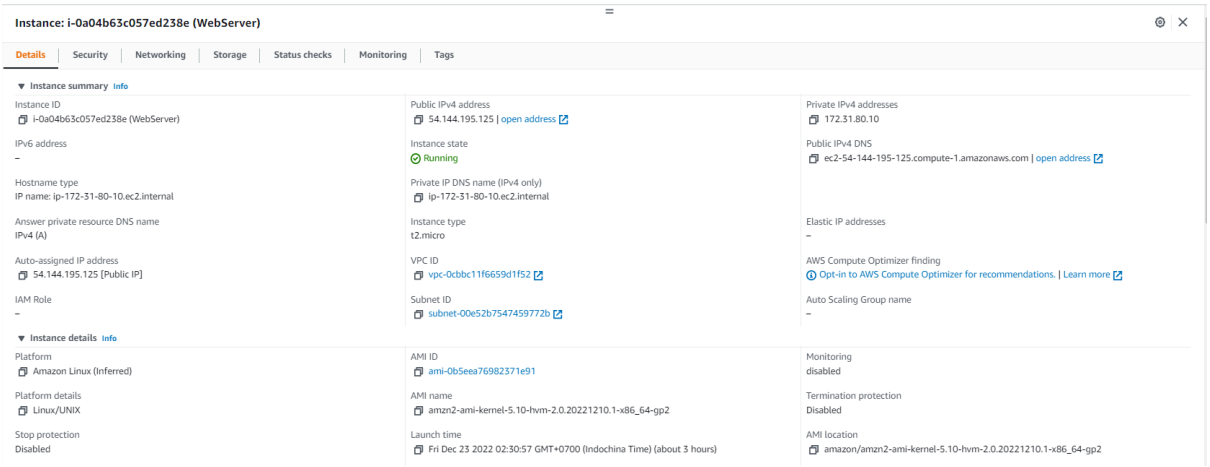
We created a new security group called "WebServer" and added two HTTP and SSH authorization entries to incoming rules. We configured SSH to accept just our IP address since we wanted to be the only ones who could connect to the EC2 instance and because we meant to install our web server on HTTP with any IPv4 address.

Key pair



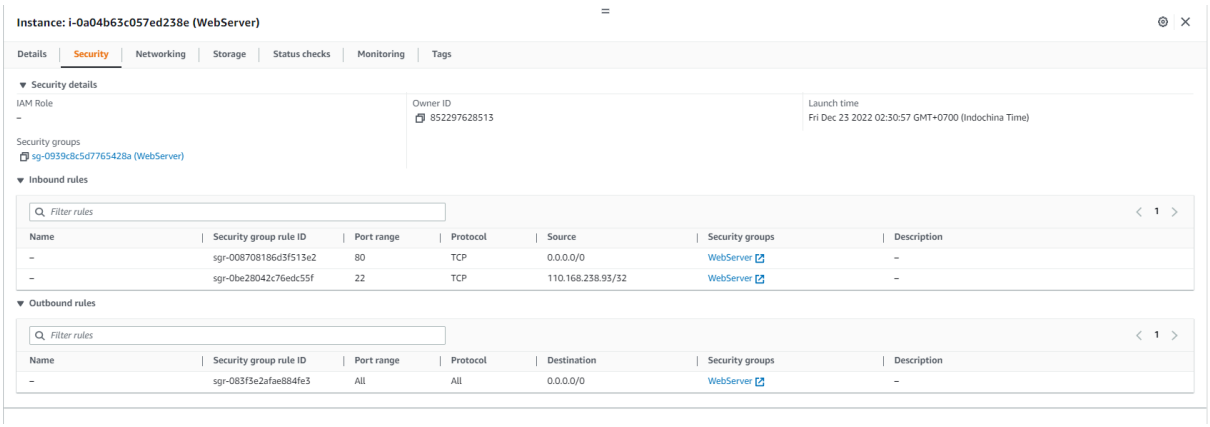
We create a key pair with the name "myec2key" with a.ppk file extension that enables us to securely across SSH security credentials using Amazon Linux and Putty.

Instance



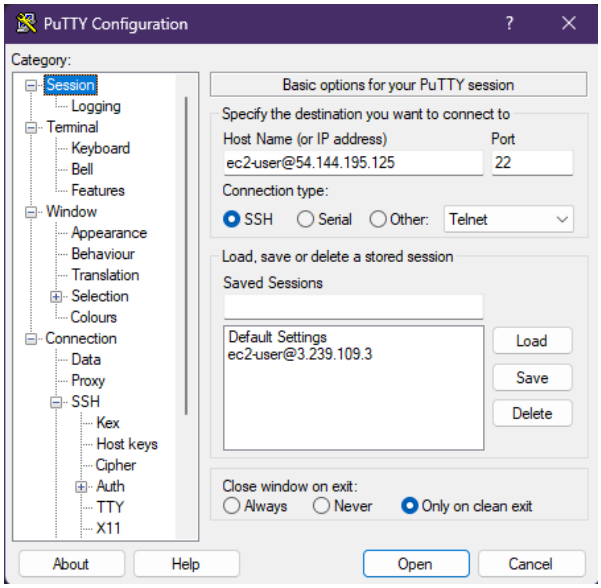
A new instance with the name "WebServer" was launched. We choose Amazon Linux 2 AMI (HVM) - Kernel 5.10, SSD Volume Type as our AMI because it is free. We used the t2. micro instance type, which is the default. Additionally, the "myec2key" that we generate to upload the webserver to Amazon Linux using Putty is used in the key pair. We chose "WebServer" as our security group in the network settings because we had already created it.

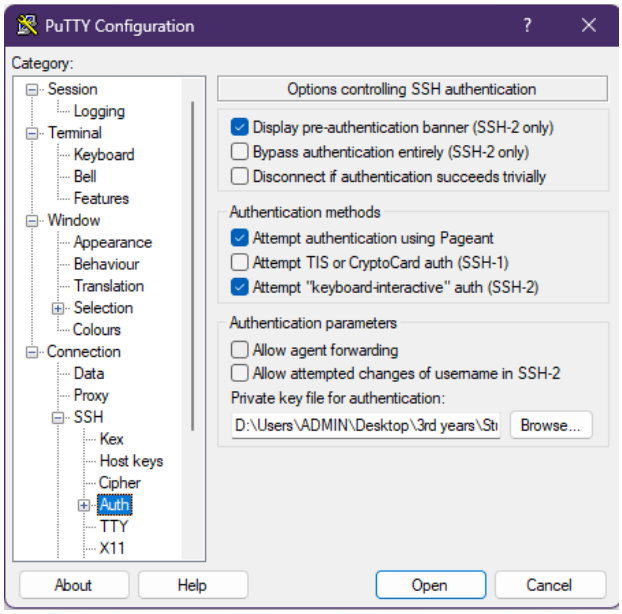
Networking



In terms of networking, we used the Public IPv4 address 54.144.195.125 and the availability zone "us-east-1c". In addition, the public IPv4 DNS is ec2-54-144-195-125.compute-1.amazonaws.com and the private IPv4 address is 172.31.80.10

Putty


PuTTY Configuration
Category:
Session
Logging
Terminal
Keyboard
Bell
Features
Window
Appearance
Behaviour
Translation
Selection
Colours
Connection
Data
Proxy
SSH
Kex
Host keys
Cipher
Auth
TTY
X11
Basic options for your PuTTY session
Specify the destination you want to connect to
Host Name (or IP address)
Port
ec2-user@54.144.195.125
22
Connection type:
SSH
Serial
Other:
Telnet
Load, save or delete a stored session
Saved Sessions
Default Settings
ec2-user@3.239.109.3
Load
Save
Delete
Close window on exit:
Always
Never
Only on clean exit
About
Help
Open
Cancel


PuTTY Configuration
Category:
Session
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Features
Window
Appearance
Behaviour
Translation
Selection
Colours
Connection
Data
Proxy
SSH
Kex
Host keys
Cipher
Auth
TTY
X11
Options controlling SSH authentication
Display pre-authentication banner (SSH-2 only)
Bypass authentication entirely (SSH-2 only)
Disconnect if authentication succeeds trivially
Authentication methods
Attempt authentication using Pageant
Attempt TIS or CryptoCard auth (SSH-1)
Attempt "keyboard-interactive" auth (SSH-2)
Authentication parameters
Allow agent forwarding
Allow attempted changes of username in SSH-2
Private key file for authentication:
D:\Users\ADMIN\Desktop\3rd years\St
Browse...
About
Help
Open
Cancel

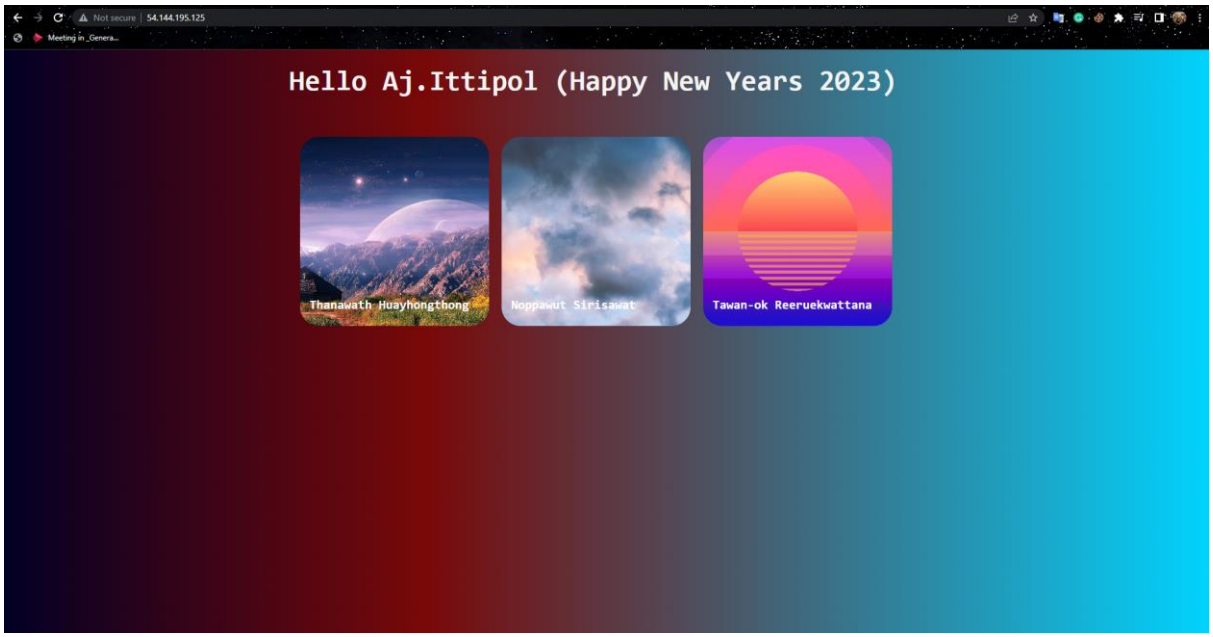
Putty Console

```
Authenticating with public key "myec2key"
Last login: Thu Dec 22 21:25:43 2022 from ppp-110-168-238-93.revip5.asianet.co.t
h

       __|  __|_  )
       _|  (     /   Amazon Linux 2 AMI
      ___|\___|___|

https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-172-31-80-10 ~]$ sudo su
[root@ip-172-31-80-10 ec2-user]# cd /var/www/html
[root@ip-172-31-80-10 html]# wget https://github.com/Ohmmyome/ohmmekday/archive/
refs/heads/main.zip
--2022-12-22 21:30:28--  https://github.com/Ohmmyome/ohmmekday/archive/refs/head
s/main.zip
Resolving github.com (github.com)... 140.82.113.3
Connecting to github.com (github.com)|140.82.113.3|:443... connected.
HTTP request sent, awaiting response... 404 Not Found
2022-12-22 21:30:28 ERROR 404: Not Found.

[root@ip-172-31-80-10 html]# rm -rf *
[root@ip-172-31-80-10 html]# wget https://github.com/Ohmmyomemy/ohmmekday/archiv
e/refs/heads/main.zip
--2022-12-22 21:31:09--  https://github.com/Ohmmyomemy/ohmmekday/archive/refs/he
ads/main.zip
Resolving github.com (github.com)... 140.82.113.4
Connecting to github.com (github.com)|140.82.113.4|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://codeload.github.com/Ohmmyomemy/ohmmekday/zip/refs/heads/main [
following]
--2022-12-22 21:31:09--  https://codeload.github.com/Ohmmyomemy/ohmmekday/zip/re
fs/heads/main
Resolving codeload.github.com (codeload.github.com)... 140.82.112.9
Connecting to codeload.github.com (codeload.github.com)|140.82.112.9|:443... con
nected.
HTTP request sent, awaiting response... 200 OK
Length: unspecified [application/zip]
Saving to: 'main.zip'

    [ <=>                                   ] 326,874     --.-K/s   in 0.02s

2022-12-22 21:31:09 (15.2 MB/s) - 'main.zip' saved [326874]

[root@ip-172-31-80-10 html]# unzip main.zip
Archive:  main.zip
40db5a5ead46b9890f97e010d55ee9c251688532
   creating: ohmmekday-main/
 extracting: ohmmekday-main/README.md
   creating: ohmmekday-main/assets/
   creating: ohmmekday-main/assets/css/
  inflating: ohmmekday-main/assets/css/home.css
   creating: ohmmekday-main/assets/image/
  inflating: ohmmekday-main/assets/image/cloud.jpg
  inflating: ohmmekday-main/assets/image/mountain.jpg
  inflating: ohmmekday-main/assets/image/sun.jpg
  inflating: ohmmekday-main/index.html
[root@ip-172-31-80-10 html]# cp -r Senyai-main/* /var/www/html/
cp: cannot stat 'Senyai-main/*': No such file or directory
[root@ip-172-31-80-10 html]# cp -r ohmmekday-main/* /var/www/html/
[root@ip-172-31-80-10 html]# rm -rf ohmmekday-main main.zip
[root@ip-172-31-80-10 html]# systemctl enable httpd
[root@ip-172-31-80-10 html]# systemctl start httpd
[root@ip-172-31-80-10 html]#
```

Command that we use to upload our web server

```
sudo su
yum update -y
yum install -y httpd
cd /var/www/html
wget https://github.com/Ohmmyome/ohmmekday/archive/refs/heads/main.zip
unzip main.zip
cp -r ohmmekday-main/* /var/www/html/
rm -rf ohmmekday-main main.zip
systemctl enable httpd
systemctl start httpd
```

Screenshot of our Webserver



Link to our Webserver

Link: http://54.144.195.125/

Video link

Link: https://www.youtube.com/watch?v=Pb8rXVY0XDo