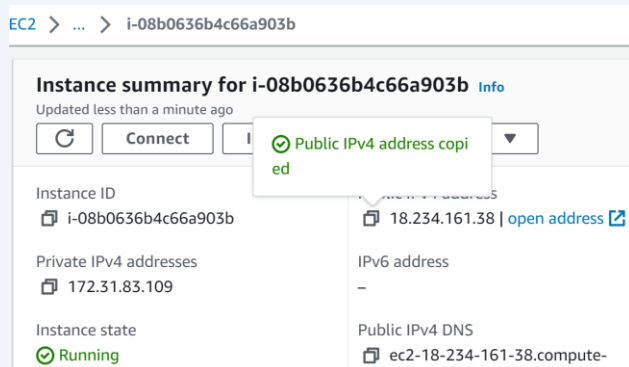


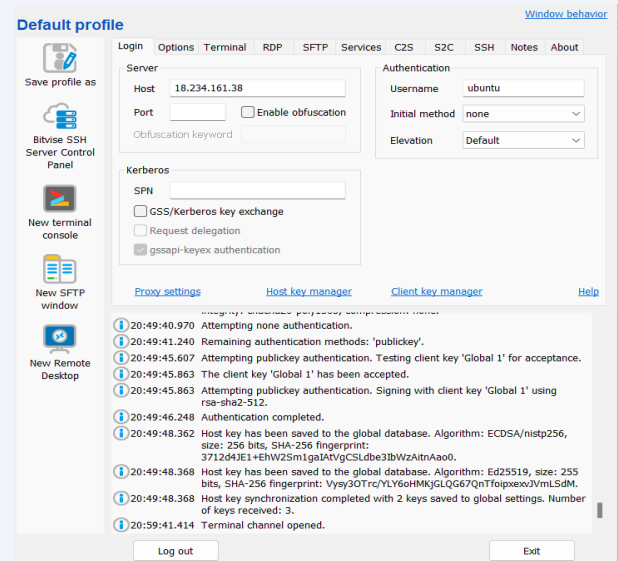
Assignment No. 9

DEPLOY A PROJECT FROM GITHUB TO EC2

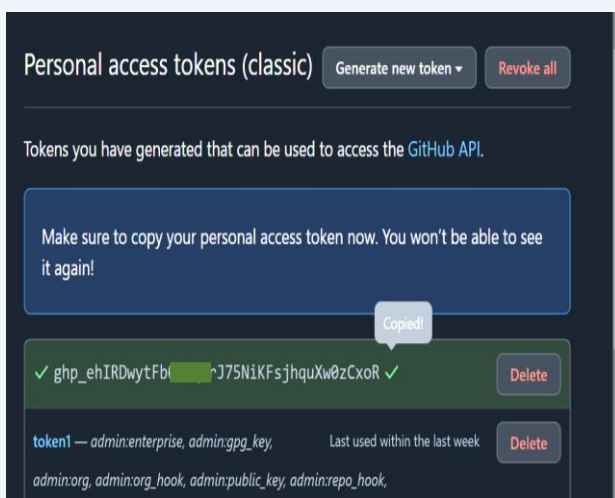
1. Visit aws.amazon.com and Sign in. Create an EC2 server and copy its IPv4 address.



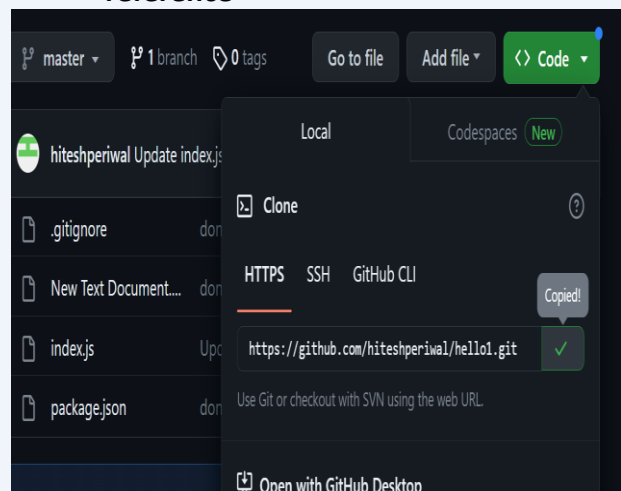
2. Login to Bitwise SSH client using the copied IPv4 address as host address.



3. Create a personal access token in the Github and save it for future reference



4. Create a repository containing the project files in the Github and copy and save its HTTPS address for future reference



5. Open a “New terminal console” in the Bitwise SSH client and type the following commands in it to install nodejs:-

pwd (to check if it is in server)

sudo apt-get update

sudo apt-get upgrade

sudo apt install nginx

nginx -v (to check nginx version)

curl -s1 https://deb.nodesource.com/setup_18.x | sudo -E bash -

sudo apt install nodejs

node -v (to check nodejs version)

```
ubuntu@ip-172-31-83-109:~$ pwd
```

```
/home/ubuntu
```

```
ubuntu@ip-172-31-83-109:~$ sudo apt-get update
```

```
ubuntu@ip-172-31-83-109:~$ sudo apt-get upgrade
```

```
ubuntu@ip-172-31-83-109:~$ sudo apt install nginx
```

```
ubuntu@ip-172-31-83-109:~$ nginx -v
```

```
nginx version: nginx/1.18.0 (Ubuntu)
```

```
ubuntu@ip-172-31-83-109:~$ curl -s1 https://deb.nodesource.com/setup_18.x | sudo -E bash -
```

```
ubuntu@ip-172-31-83-109:~$ sudo apt install nodejs
```

```
ubuntu@ip-172-31-83-109:~$ node -v
```

```
v18.15.0
```

6. To upload the project on EC2 server type the following commands:-

git clone *https address of the github hub repository where project is uploaded*

(For username type your github username and for password enter the personal access token)

dir (to check the directory of the project)

cd hello1/ (to enter into repository)

npm install (node package manager installation to run node commands)

node index.js (as project is uploaded start server)

```
ubuntu@ip-172-31-82-194:~$ git clone https://github.com/hiteshperiwal/hello1.git
```

```
Cloning into 'hello1'...
```

```
Username for 'https://github.com': hiteshperiwal
```

```
Password for 'https://hiteshperiwal@github.com':
```

```
ubuntu@ip-172-31-83-109:~$ dir
```

```
hello1
```

```
ubuntu@ip-172-31-83-109:~$ cd hello1/
```

```
ubuntu@ip-172-31-83-109:~/hello1$ npm install
```


```
ubuntu@ip-172-31-83-109:~/hello1$ node index.js
```

```
Started server
```

7. On pasting the public IPv4 address of EC2 server, the project won't load because only through specific ports it is accessible. Go to GitHub and check for the ports permitted for the project by opening the index.js file.

Now to address this issue go to instance (in AWS) -> security -> security groups -> edit inbound rules -> Add rules -> set type as custom TCP, port range as specified in index.js file, source as anywhere-IPv4 and 0.0.0.0/0 -> save rules. Now type the port number after colon in IPv4 address and the website will be accessible.

Hence the project is successfully deployed from GitHub to EC2.

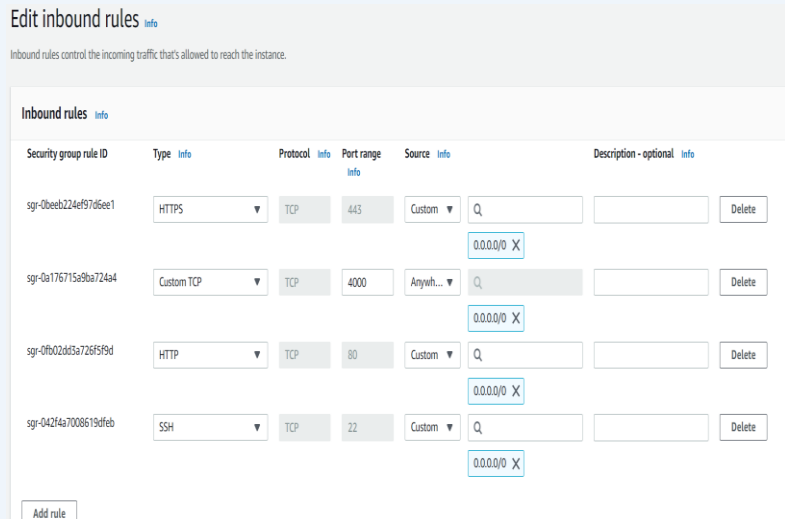


hitesheriwal Update index.js

2 contributors

11 lines (9 sloc) 203 Bytes

```
1 const express = require('express')
2 const app = express()
3
4 app.get('/', function (req, res) {
5   res.send('Hello MCKVIANS....how are you')
6 })
7
8 app.listen(4000, ()=>{
9   console.log("Started server");
10 })
11 )
```

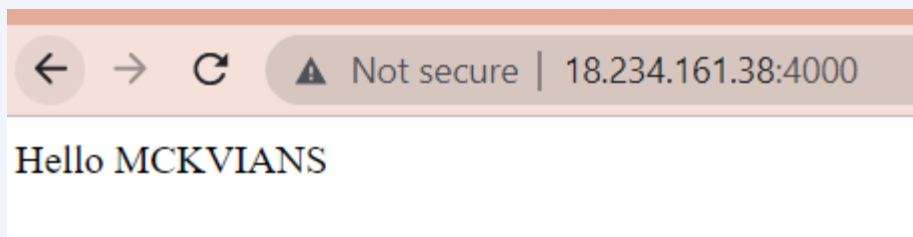


Edit inbound rules

Inbound rules control the incoming traffic that's allowed to reach the instance.

Security group rule ID	Type	Protocol	Port range	Source	Description - optional	
sg-0beeb224ef97d6ee1	HTTPS	TCP	443	Custom 0.0.0.0/0		Delete
sg-0a176715d9ba724a4	Custom TCP	TCP	4000	Anywhere 0.0.0.0/0		Delete
sg-0f02d05a726f5f9d	HTTP	TCP	80	Custom 0.0.0.0/0		Delete
sg-042f4a7008619dfb	SSH	TCP	22	Custom 0.0.0.0/0		Delete

Add rule



8. If there is some editing done in the project it will not be reflected in the website. For that we need to terminate the server using ctrl+c and then type the following command:-

git pull

(enter the github username and its token as password)

node index.js

Now, refresh the browser to see the changes reflected on it.

```
ubuntu@ip-172-31-83-109:~/hello1$ git pull
Username for 'https://github.com': hitesheriwal
Password for 'https://hitesheriwal@github.com':
ubuntu@ip-172-31-83-109:~/hello1$ node index.js
Started server
```

