CARRERA DE INGENIERIA DE SOFTWARE

MATERIA: Gráficos y visualización

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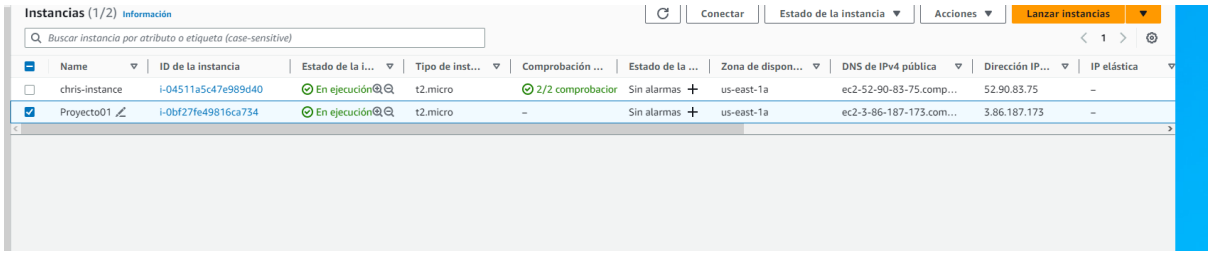
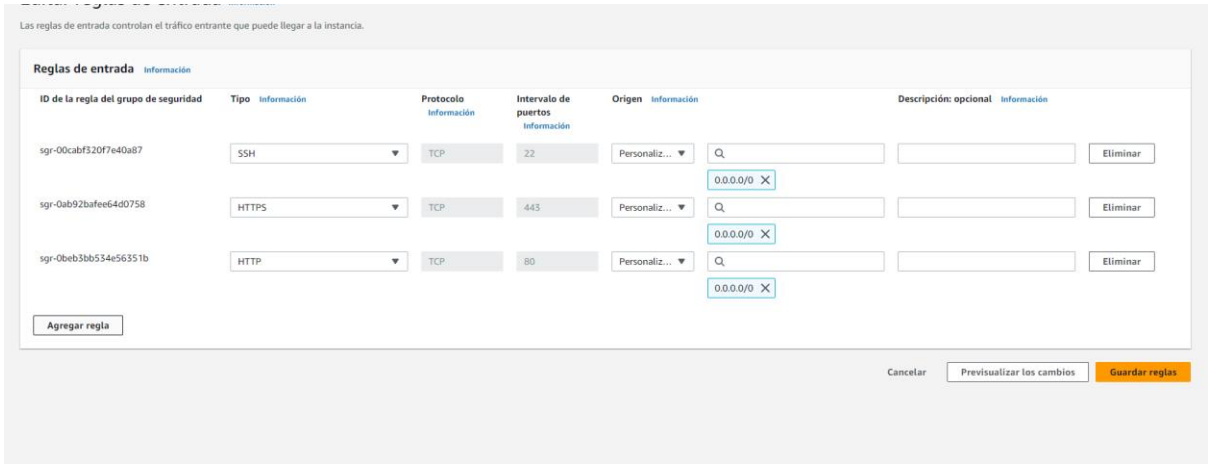
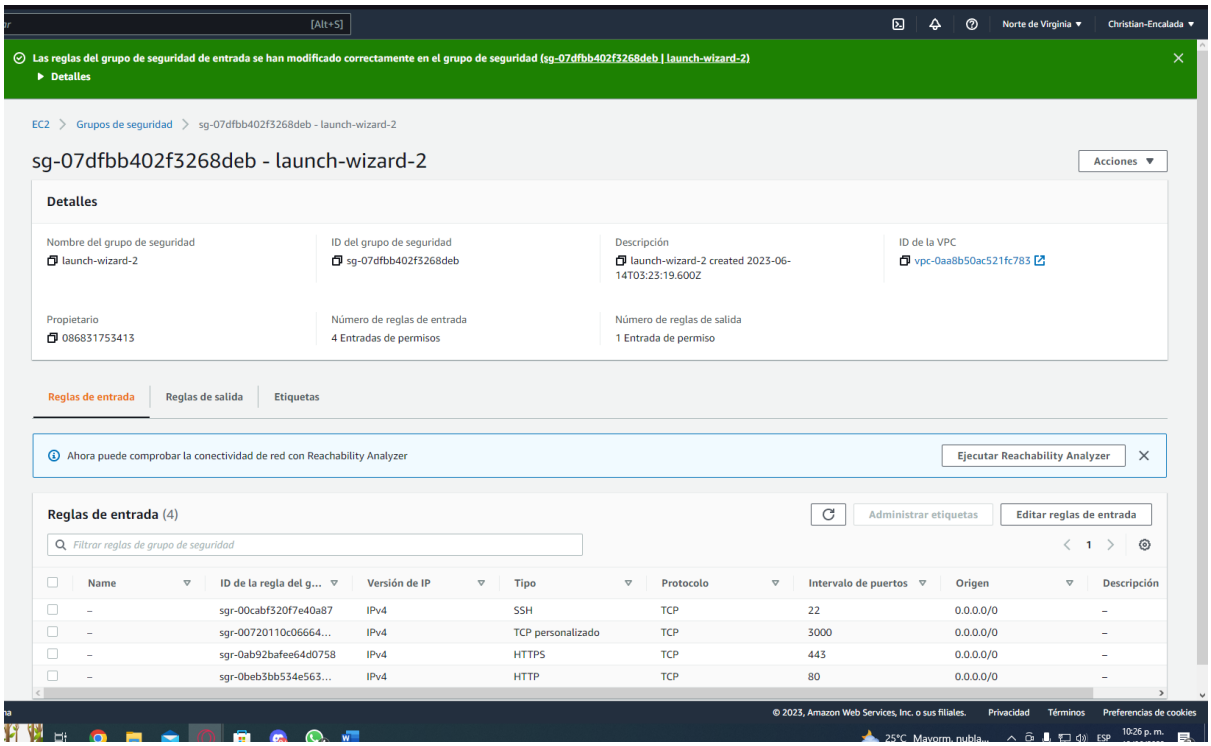
FECHA: 13/06/2023

Bueno lo primero es EC2 con tic tac en React.
Para empezar cree mi instancia.

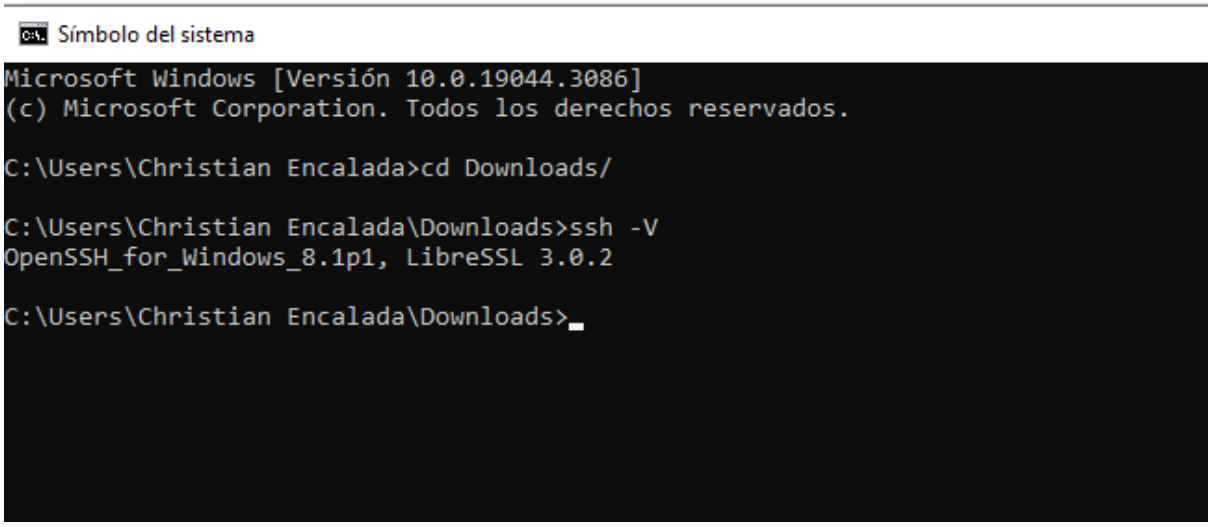


Aquí configure las reglas:

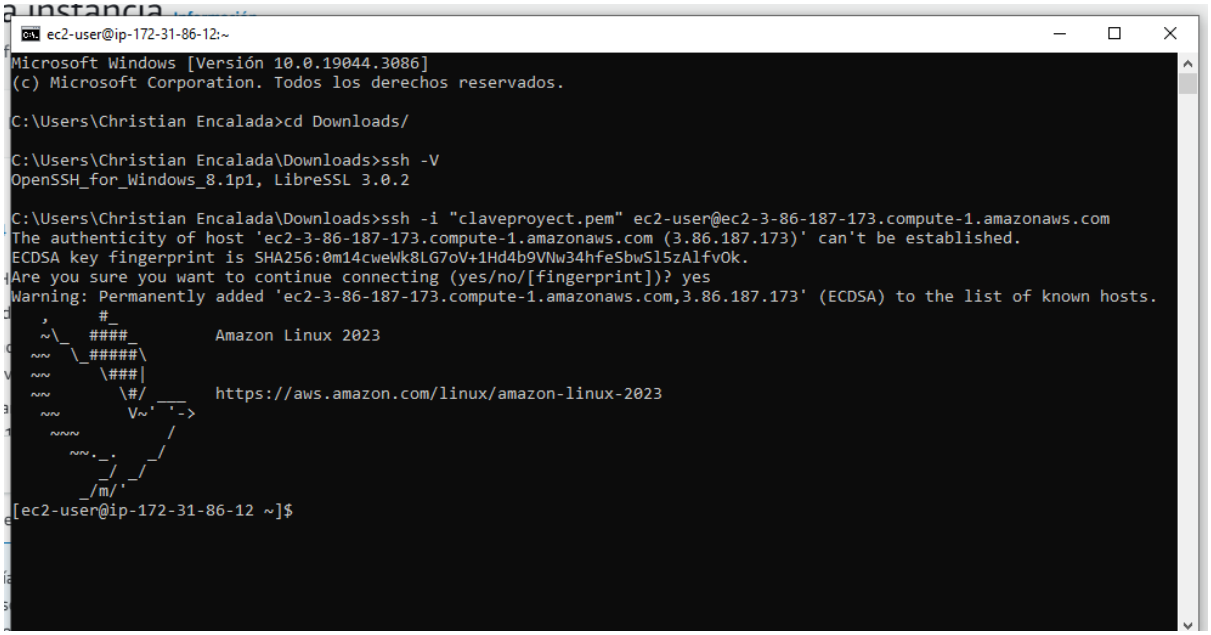




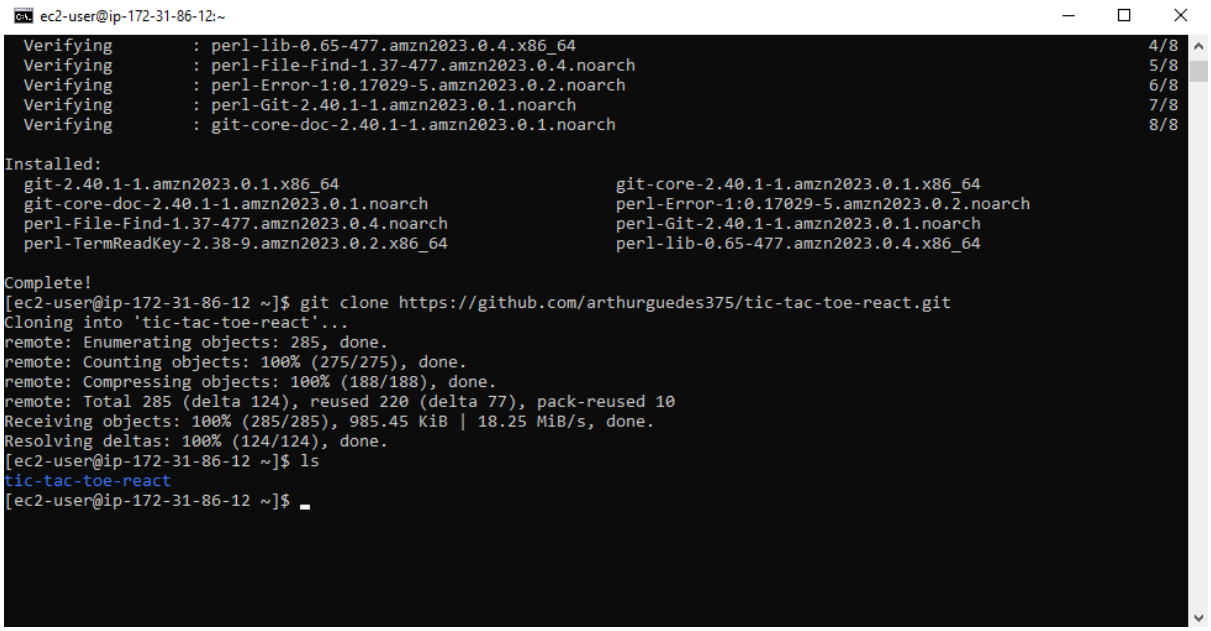
Antes de eso también descargue mi clave pem, que esta guardada en descargas, por lo que ingreso ahí desde el terminal:



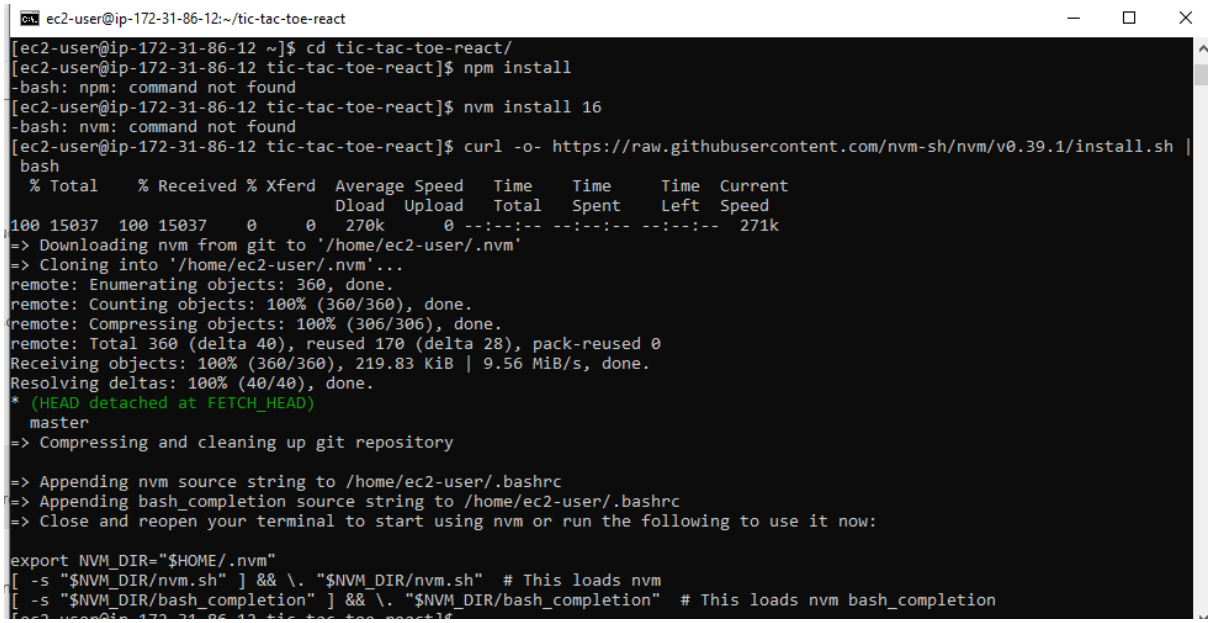
Mira la versión de mi ssh, para ver que esta todo bien

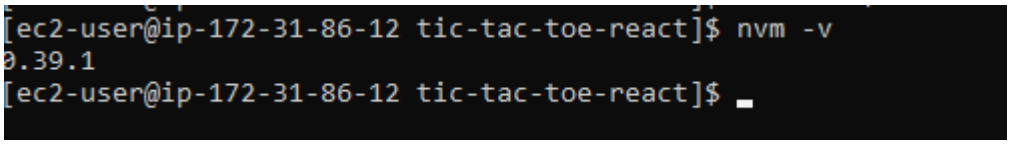


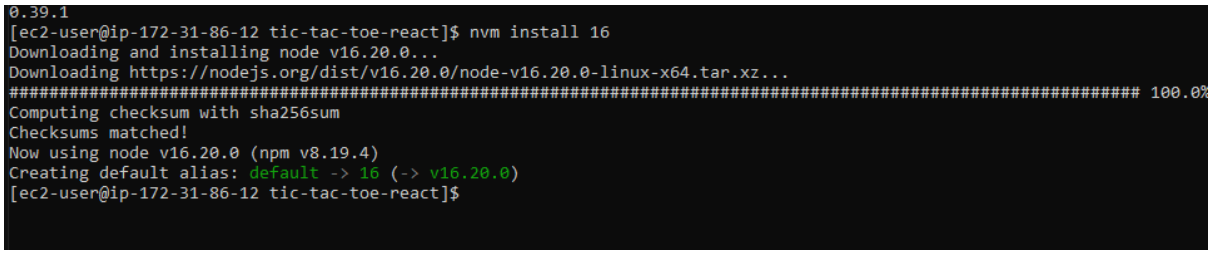
Ahora clone el proyecto de github



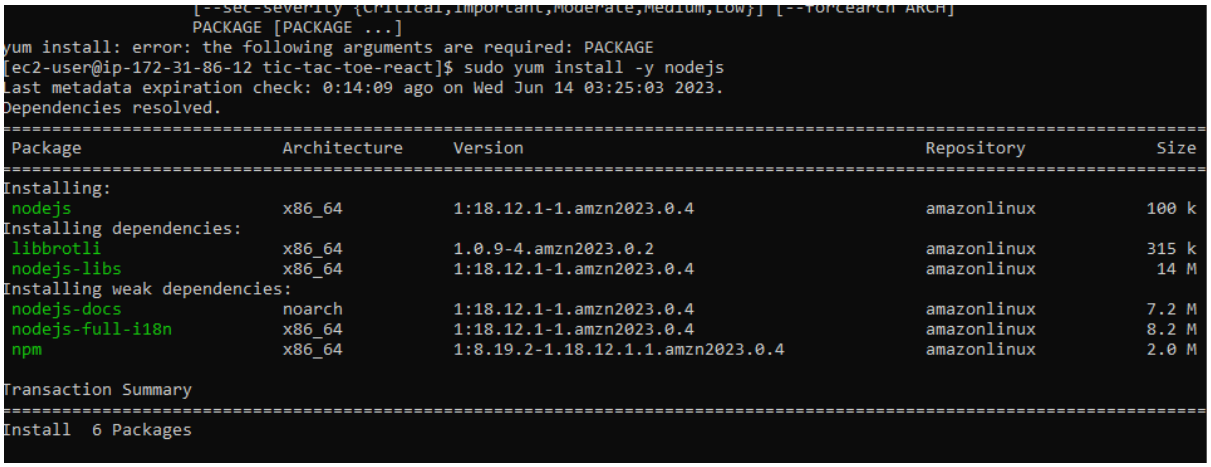
Ahora descargo el nvm y confirmo su version







Ahora instalo el nodejs



Y ahora confirmo la versión de node

```
[ec2-user@ip-172-31-86-12 tic-tac-toe-react]$ node -v
v16.20.0
[ec2-user@ip-172-31-86-12 tic-tac-toe-react]$
```

Instalo npm

```
[ec2-user@ip-172-31-86-12 tic-tac-toe-react]$ npm install
( ) idealTree:@testing-library/react: sill fetch manifest scheduler@0.19.1
```

Ahora uso npm start para iniciarlo

```
npm notice Run npm install -g npm@9.7.1 to update!
npm notice
[ec2-user@ip-172-31-86-12 tic-tac-toe-react]$ npm start
```

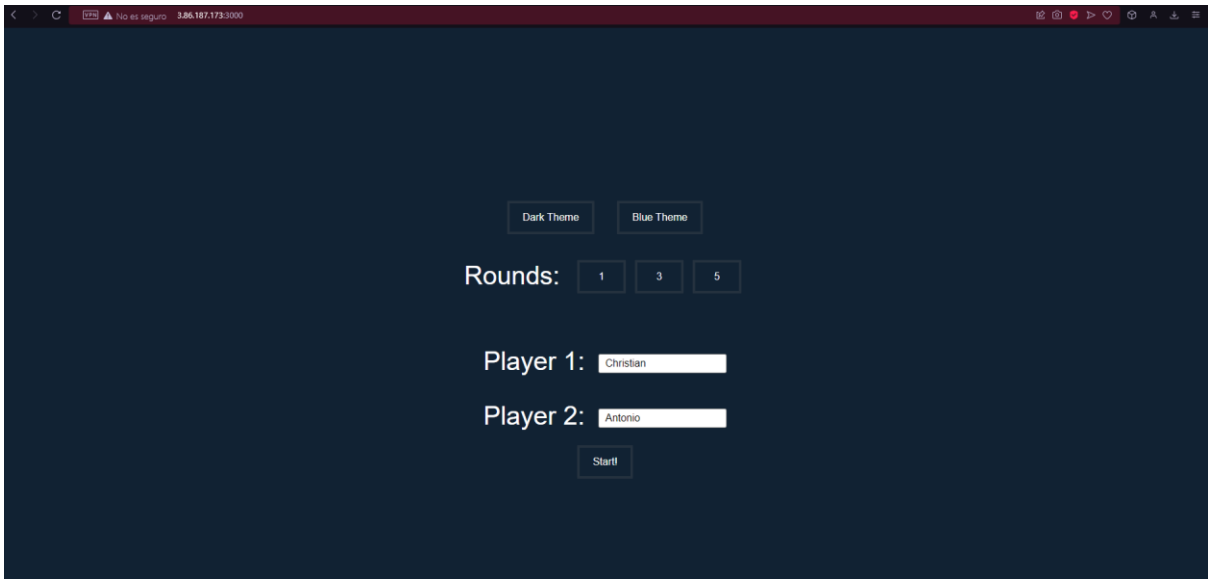
```
ec2-user@ip-172-31-86-12:~/tic-tac-toe-react
Compiled successfully!

You can now view tic-tac-toe-react in the browser.

  Local:            http://localhost:3000
  On Your Network:  http://172.31.86.12:3000

Note that the development build is not optimized.
To create a production build, use yarn build.
```

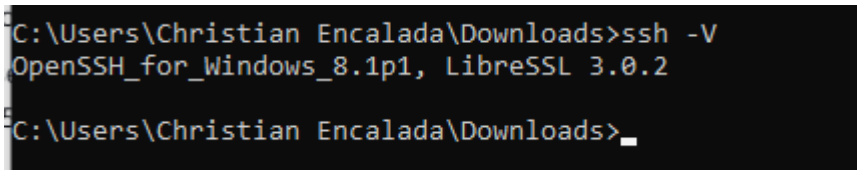
Y ahora ya puedo ingresar al proyecto desde mi ip con el puerto seleccionado que es: 3000



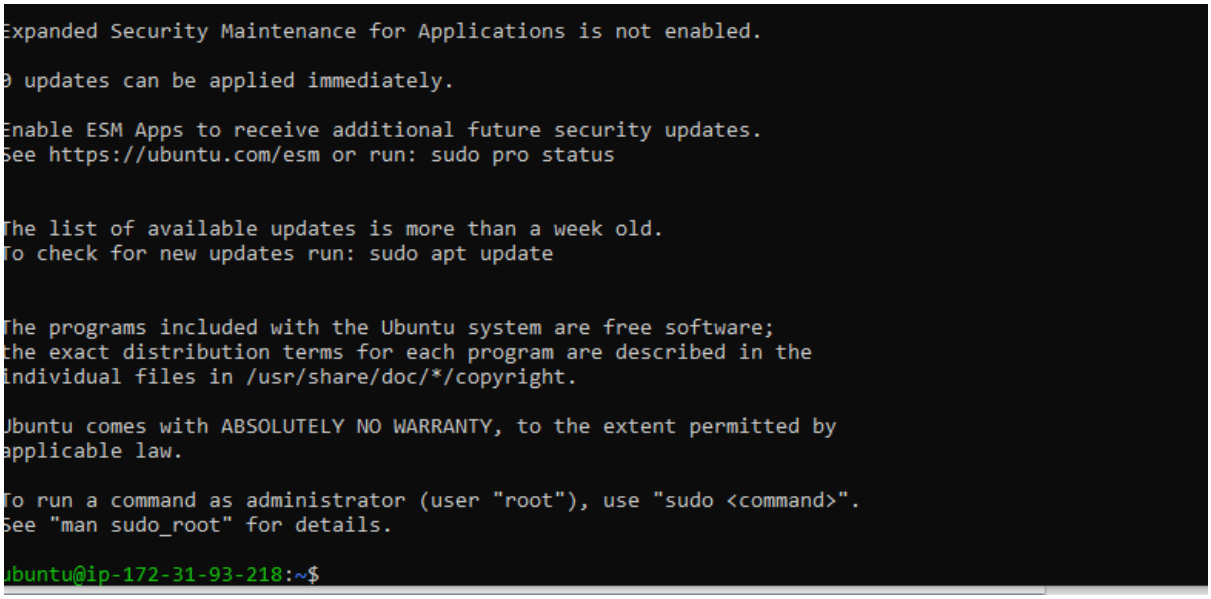
Ahora la segunda tarea es:

Levantar un servicio de fastapi en ec2.

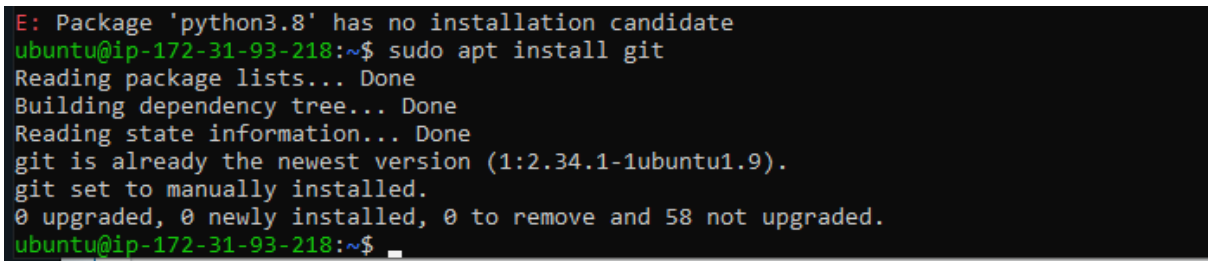
Hago los mismo pasos que el anterior creando la clave y configurando algunas reglas que detallo mas abajo sobre las reglas, pero en vez de AWS, uso Ubuntu y ingreso por termianal donde guarde mi clave, pem.



Uso el comando que se ve a continuación:



Ahora instalo git en la maquina virtual que ya accedi



Ahora clono el repositorio de la tarea, con git clone.

```
ubuntu@ip-172-31-93-218:~$ git clone https://github.com/mdhishaamakhtar/fastapi-sqlalchemy-postgres-template.git
Cloning into 'fastapi-sqlalchemy-postgres-template'...
remote: Enumerating objects: 73, done.
remote: Counting objects: 100% (73/73), done.
remote: Compressing objects: 100% (52/52), done.
remote: Total 73 (delta 29), reused 52 (delta 17), pack-reused 0
Receiving objects: 100% (73/73), 31.27 KiB | 3.47 MiB/s, done.
Resolving deltas: 100% (29/29), done.
ubuntu@ip-172-31-93-218:~$
```

Ahora entro a la carpeta desde la maquina virtual y instalo python

```
No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-93-218:~$ cd fastapi-sqlalchemy-postgres-template/
ubuntu@ip-172-31-93-218:~/fastapi-sqlalchemy-postgres-template$ sudo apt install python3-pip
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
python3-pip is already the newest version (22.0.2+dfsg-1ubuntu0.3).
0 upgraded, 0 newly installed, 0 to remove and 53 not upgraded.
ubuntu@ip-172-31-93-218:~/fastapi-sqlalchemy-postgres-template$
```

Y ahora instalo la virtualenv, que es el entorno virtual de desarrollo.

```
ubuntu@ip-172-31-93-218:~/fastapi-sqlalchemy-postgres-template$ sudo pip3 install virtualenv
Collecting virtualenv
  Downloading virtualenv-20.23.0-py3-none-any.whl (3.3 MB)
     ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━ 3.3/3.3 MB 33.5 MB/s eta 0:00:00
Collecting platformdirs<4,>=3.2
  Downloading platformdirs-3.5.3-py3-none-any.whl (15 kB)
Collecting distlib<1,>=0.3.6
  Downloading distlib-0.3.6-py2.py3-none-any.whl (468 kB)
     ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━ 468.5/468.5 KB 51.1 MB/s eta 0:00:00
Collecting filelock<4,>=3.11
  Downloading filelock-3.12.2-py3-none-any.whl (10 kB)
Installing collected packages: distlib, platformdirs, filelock, virtualenv
Successfully installed distlib-0.3.6 filelock-3.12.2 platformdirs-3.5.3 virtualenv-20.23.0
WARNING: Running pip as the 'root' user can result in broken permissions and conflicting behaviour with the system packa
ge manager. It is recommended to use a virtual environment instead: https://pip.pypa.io/warnings/venv
ubuntu@ip-172-31-93-218:~/fastapi-sqlalchemy-postgres-template$
```

```
ubuntu@ip-172-31-93-218:~/fastapi-sqlalchemy-postgres-template$ sudo apt install python3-venv
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  python3-pip-whl python3-setuptools-whl python3.10-venv
The following NEW packages will be installed:
  python3-pip-whl python3-setuptools-whl python3-venv python3.10-venv
0 upgraded, 4 newly installed, 0 to remove and 53 not upgraded.
Need to get 2474 kB of archives.
After this operation, 2888 kB of additional disk space will be used.
Do you want to continue? [Y/n] D
```

Instalamos la versión 3.8 de python

```
ubuntu@ip-172-31-93-218:~/fastapi-sqlalchemy-postgres-template$ sudo apt install python3.8
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libpython3.8-minimal libpython3.8-stdlib mailcap mime-support python3.8-minimal
Suggested packages:
  python3.8-venv binfmt-support
The following NEW packages will be installed:
  libpython3.8-minimal libpython3.8-stdlib mailcap mime-support python3.8 python3.8-minimal
0 upgraded, 6 newly installed, 0 to remove and 53 not upgraded.
Need to get 5099 kB of archives.
After this operation, 18.9 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 mailcap all 3.70+nmu1ubuntu1 [23.8 kB]
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 mime-support all 3.66 [3696 B]
Get:3 https://ppa.launchpadcontent.net/deadsnakes/ppa/ubuntu jammy/main amd64 libpython3.8-minimal amd64 3.8.17-1+jammy1
 [793 kB]
Get:4 https://ppa.launchpadcontent.net/deadsnakes/ppa/ubuntu jammy/main amd64 python3.8-minimal amd64 3.8.17-1+jammy1 [2
```

Entramos al entorno virutal de desarrollo en python3.8 y instalamos “requirements.txt”

```
o VM guests are running outdated hypervisor (qemu) binaries on this host.
buntu@ip-172-31-93-218:~/fastapi-sqlalchemy-postgres-template$ python3.8 -m venv .venv
buntu@ip-172-31-93-218:~/fastapi-sqlalchemy-postgres-template$ source .venv/bin/activate
.venv) ubuntu@ip-172-31-93-218:~/fastapi-sqlalchemy-postgres-template$ pip install -r requirements.txt
ollecting aiofiles==0.5.0
 Downloading aiofiles-0.5.0-py3-none-any.whl (11 kB)
ollecting aniso8601==7.0.0
 Downloading aniso8601-7.0.0-py2.py3-none-any.whl (42 kB)
    ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━ 42.0/42.0 kB 1.3 MB/s eta 0:00:00
ollecting appdirs==1.4.4
 Downloading appdirs-1.4.4-py2.py3-none-any.whl (9.6 kB)
ollecting async-exit-stack==1.0.1
 Downloading async_exit_stack-1.0.1-py3-none-any.whl (4.7 kB)
ollecting async-generator==1.10
 Downloading async_generator-1.10-py3-none-any.whl (18 kB)
ollecting atomicwrites==1.4.0
 Downloading atomicwrites-1.4.0-py2.py3-none-any.whl (6.8 kB)
ollecting attrs==20.3.0
 Downloading attrs-20.3.0-py2.py3-none-any.whl (49 kB)
    ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━ 49.3/49.3 kB 7.9 MB/s eta 0:00:00
ollecting black==20.8b1
 Downloading black-20.8b1.tar.gz (1.1 MB)
    ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━ 1.1/1.1 MB 39.5 MB/s eta 0:00:00
 Installing build dependencies ... |
```

Hacemos otra instalación de Python-decouple

```
[notice] A new release of pip is available: 23.0.1 -> 23.1.2
[notice] To update, run: pip install --upgrade pip
(.venv) ubuntu@ip-172-31-93-218:~/fastapi-sqlalchemy-postgres-template$ pip install python-dotenv python-decouple
Collecting python-dotenv
  Downloading python_dotenv-1.0.0-py3-none-any.whl (19 kB)
Collecting python-decouple
  Downloading python_decouple-3.8-py3-none-any.whl (9.9 kB)
Installing collected packages: python-decouple, python-dotenv
Successfully installed python-decouple-3.8 python-dotenv-1.0.0

[notice] A new release of pip is available: 23.0.1 -> 23.1.2
[notice] To update, run: pip install --upgrade pip
(.venv) ubuntu@ip-172-31-93-218:~/fastapi-sqlalchemy-postgres-template$
```

Instalamos postgresql

```
[notice] A new release of pip is available: 23.0.1 -> 23.1.2
[notice] To update, run: pip install --upgrade pip
(.venv) ubuntu@ip-172-31-93-218:~/fastapi-sqlalchemy-postgres-template$ sudo apt install postgresql
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libcommon-sense-perl libjson-perl libjson-xs-perl libllvm14 libsensors-config libsensors5 libtypes-serialiser-pe
  postgresql-14 postgresql-client-14 postgresql-client-common postgresql-common ssl-cert sysstat
Suggested packages:
```

Ahora use el comando que se ve a continuación parra ver el estado del servicio

```
sudo: postgresql: command not found
(.venv) ubuntu@ip-172-31-93-218:~/fastapi-sqlalchemy-postgres-template$ sudo service postgresql status
● postgresql.service - PostgreSQL RDBMS
     Loaded: loaded (/lib/systemd/system/postgresql.service; enabled; vendor preset: enabled)
     Active: active (exited) since Wed 2023-06-14 04:17:36 UTC; 44s ago
    Process: 6649 ExecStart=/bin/true (code=exited, status=0/SUCCESS)
   Main PID: 6649 (code=exited, status=0/SUCCESS)
        CPU: 1ms

Jun 14 04:17:36 ip-172-31-93-218 systemd[1]: Starting PostgreSQL RDBMS...
Jun 14 04:17:36 ip-172-31-93-218 systemd[1]: Finished PostgreSQL RDBMS.
(.venv) ubuntu@ip-172-31-93-218:~/fastapi-sqlalchemy-postgres-template$
```

Ahora entro a postgres en la maquina y de ahí pongo psql, para entrar normal

```
Jun 14 04:17:36 ip-172-31-93-218 systemd[1]: Starting PostgreSQL RDBMS...
Jun 14 04:17:36 ip-172-31-93-218 systemd[1]: Finished PostgreSQL RDBMS.
(.venv) ubuntu@ip-172-31-93-218:~/fastapi-sqlalchemy-postgres-template$ sudo -i -u postgres
postgres@ip-172-31-93-218:~$ psql
psql (14.8 (Ubuntu 14.8-0ubuntu0.22.04.1))
Type "help" for help.

postgres=#
```

Y uso este commando para crear mi usuario y contraseña

```
postgres=# ALTER USER postgres WITH PASSWORD '12345';
ALTER ROLE
postgres=#
```

actualizo

```
[notice] A new release of pip is available: 23.0.1 -> 23.1.2
[notice] To update, run: pip install --upgrade pip
(.venv) ubuntu@ip-172-31-93-218:~/fastapi-sqlalchemy-postgres-template$ uvicorn main:app
INFO:     Started server process [6807]
INFO:     Waiting for application startup.
INFO:     Application startup complete.
INFO:     Uvicorn running on http://127.0.0.1:8000 (Press CTRL+C to quit)
```

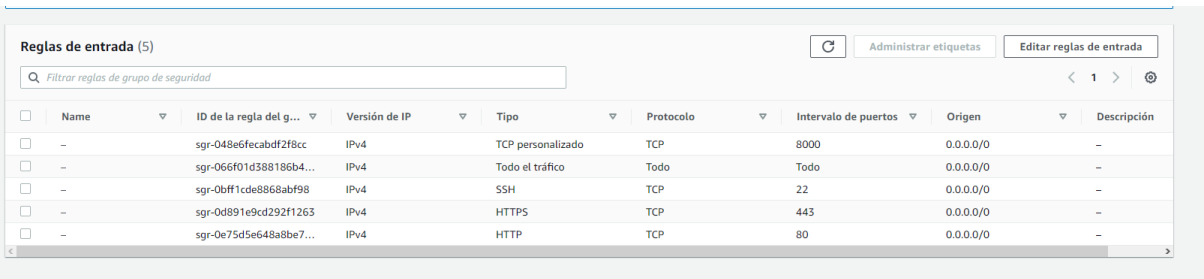
Instalo el nginx

```
INFO:     Finished server process [6807]
(.venv) ubuntu@ip-172-31-93-218:~/fastapi-sqlalchemy-postgres-template$ cd
(.venv) ubuntu@ip-172-31-93-218:~$ sudo apt install nginx
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
```

Ahora entrando de nuevo a fastapi con la maquina virutal, uso el comando uvicorn main:app y corro los servicios que ahora me dejaran entrar con mi dirección de ip publica.

```
(.venv) ubuntu@ip-172-31-93-218:~$ cd fastapi-sqlalchemy-postgres-template/
(.venv) ubuntu@ip-172-31-93-218:~/fastapi-sqlalchemy-postgres-template$ uvicorn main:app
INFO:     Started server process [7375]
INFO:     Waiting for application startup.
INFO:     Application startup complete.
INFO:     Uvicorn running on http://127.0.0.1:8000 (Press CTRL+C to quit)
INFO:     127.0.0.1:59644 - "GET / HTTP/1.0" 200 OK
```

Estas fueron las 2 reglas que agregue, y junto a ellas se pueden ver las demás que vienen por defecto.



Y aquí se ve como ya puede ingresar: