

# Experiment 1

## AWS solutions

Ayush Raj

22BRS1117

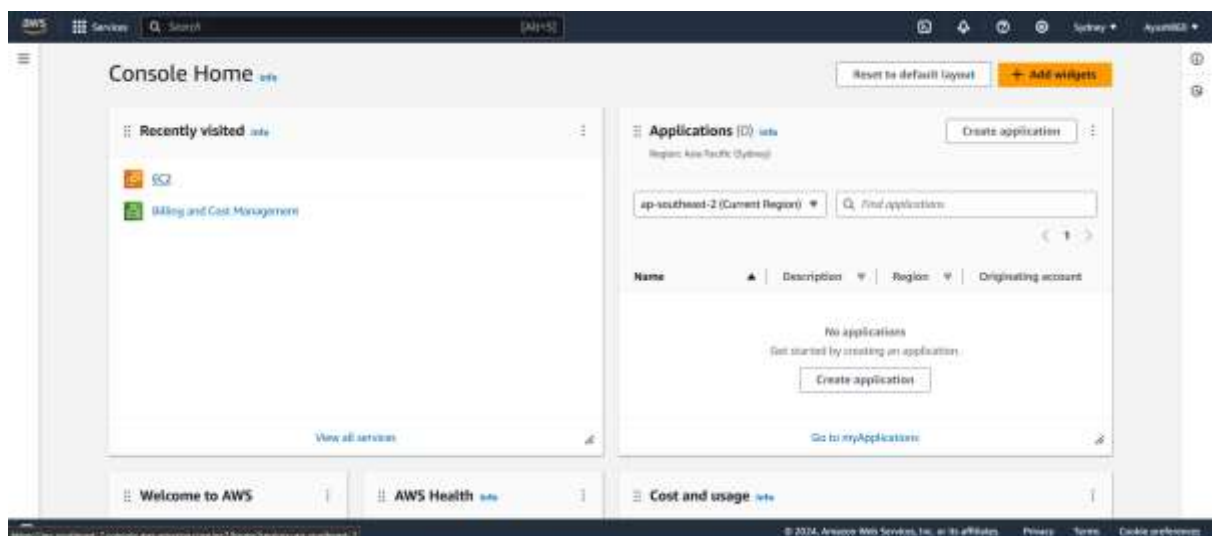
B2 tb2

**Aim** : create an ec2 instance and connect and launch an application

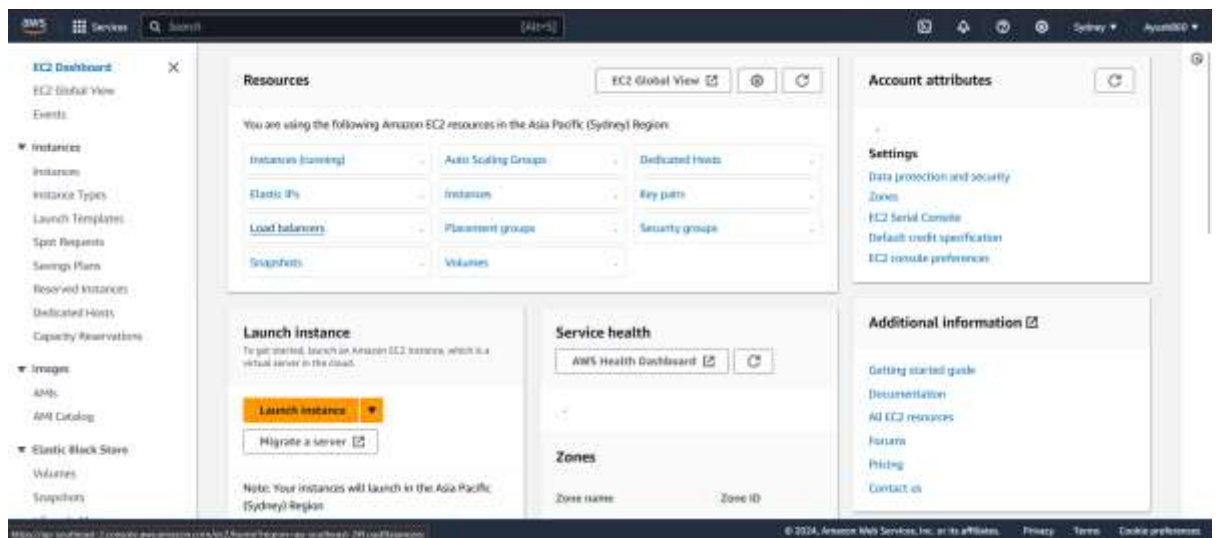
Procedure :

1. First we created an AWS account
2. Next we followed the following steps

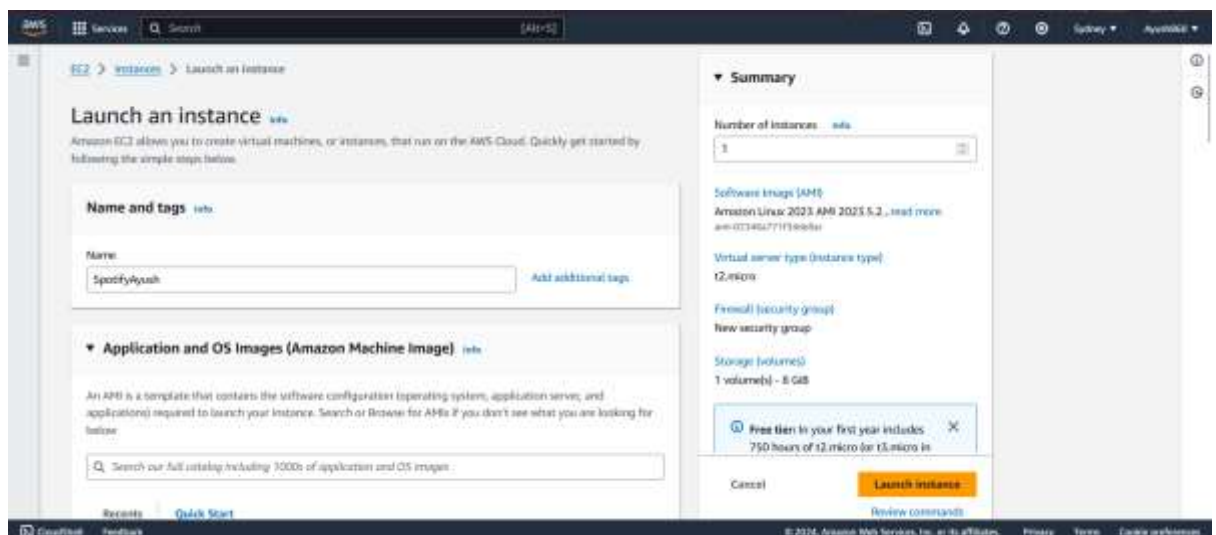
3. Click on Ec2



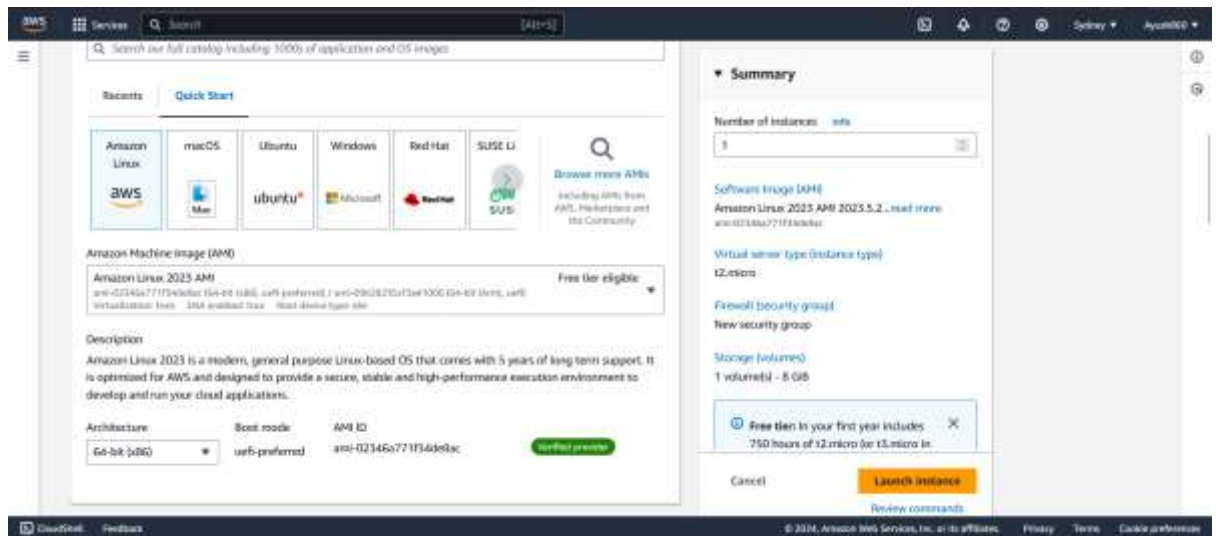
## 4. Click on launch Instance



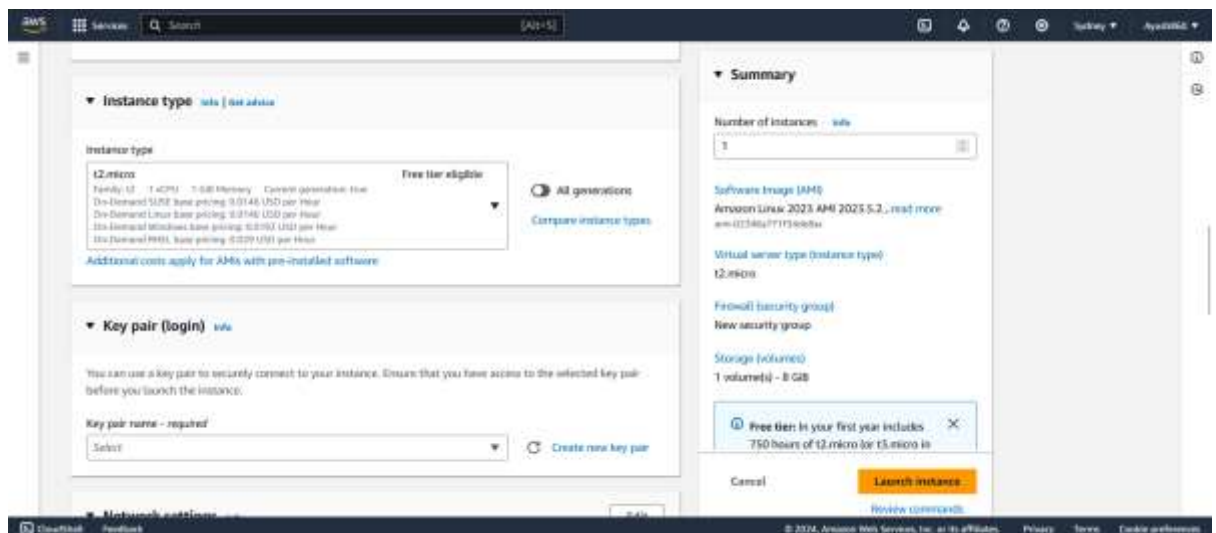
## 5. Name the instance



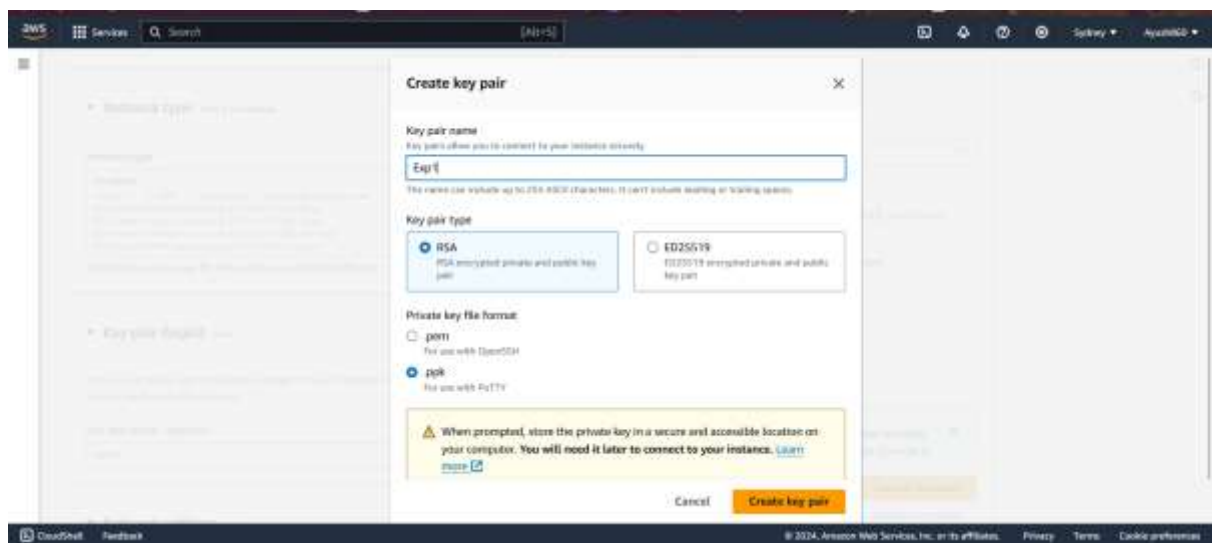
## 6. Specify the os and architecture of the vm



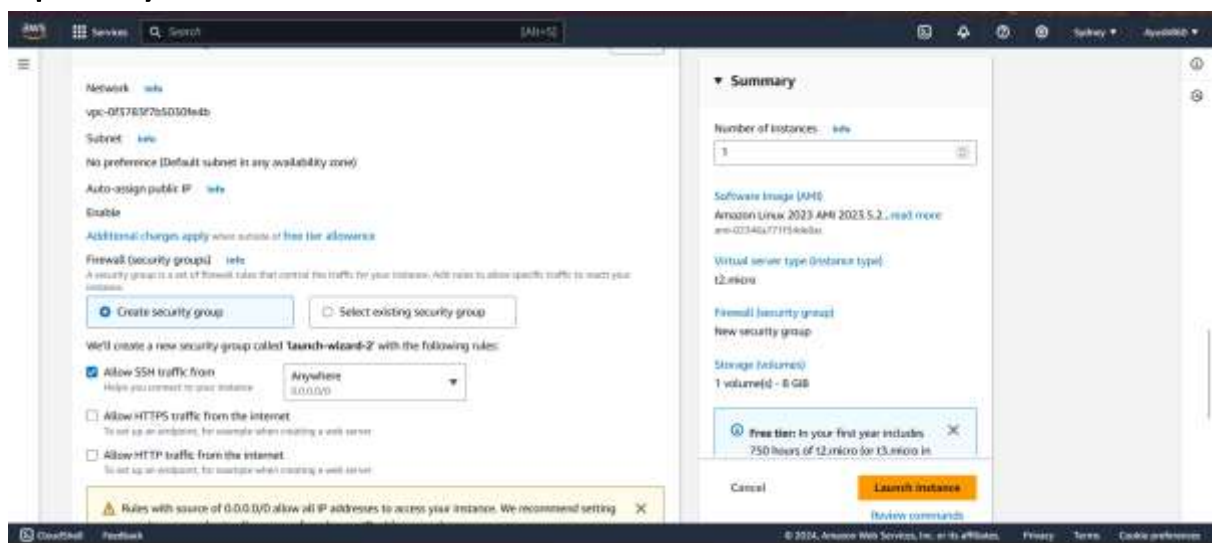
## 7. Instance type t2.micro (free trial)



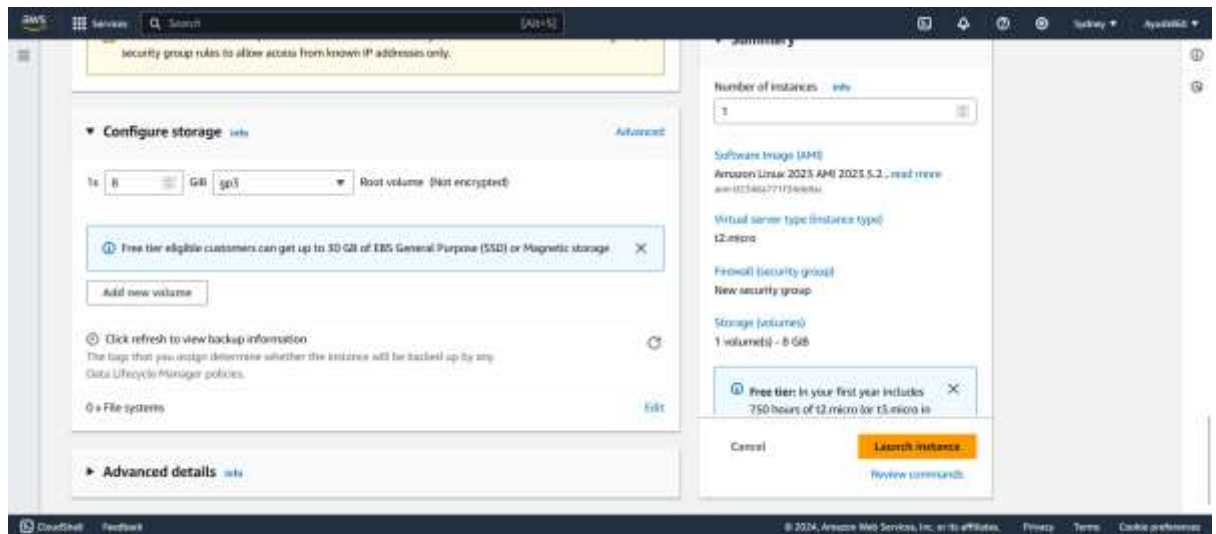
## 8. Create key pair ,change file format to .ppk, the file will be downloaded



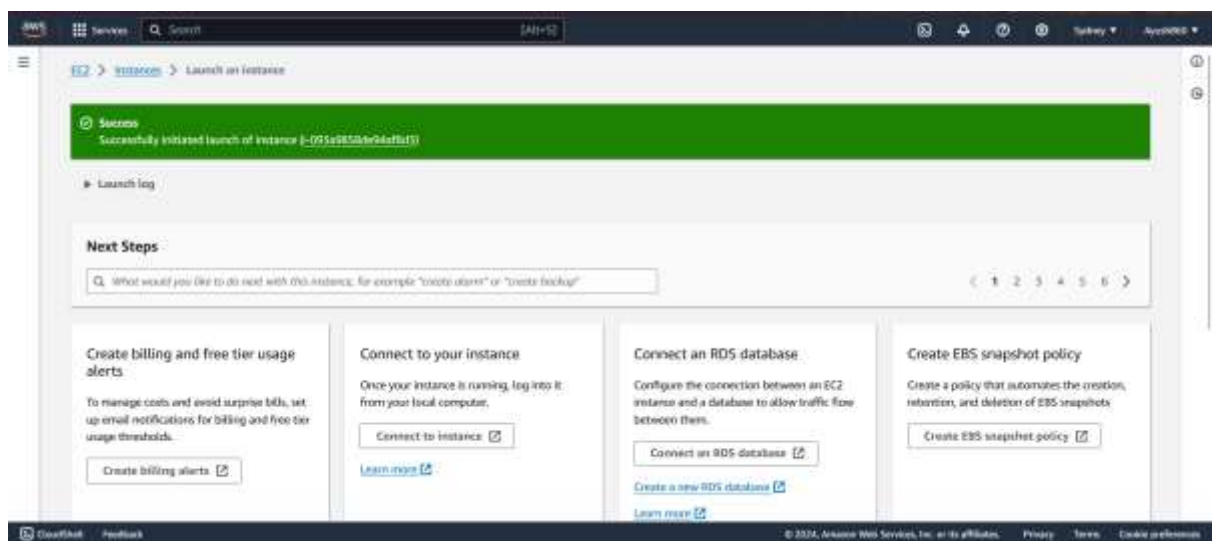
## 9. Specify network and subnet



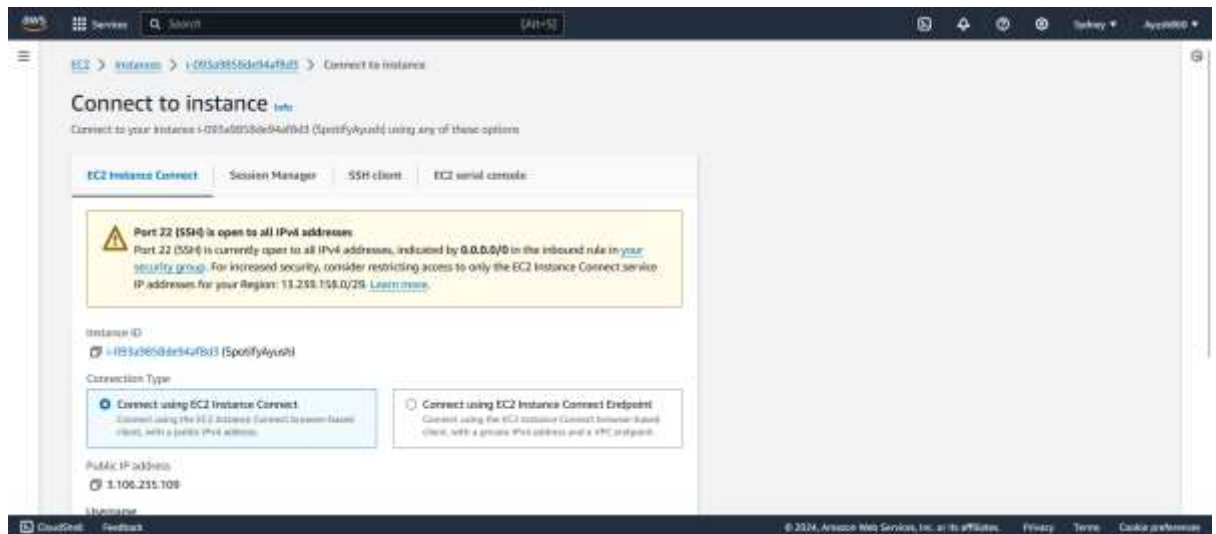
## 10. Configure storage



## 11. The instance will be launched now we have to connect it



## 12. Click on connect to instance



## 13. Now go back to EC2

## 14. Click on instances



Services



Search

EC2 Dashboard



EC2 Global View

Events

▼ **Instances**

[Instances](#)

Instance Types

Launch Templates

Spot Requests

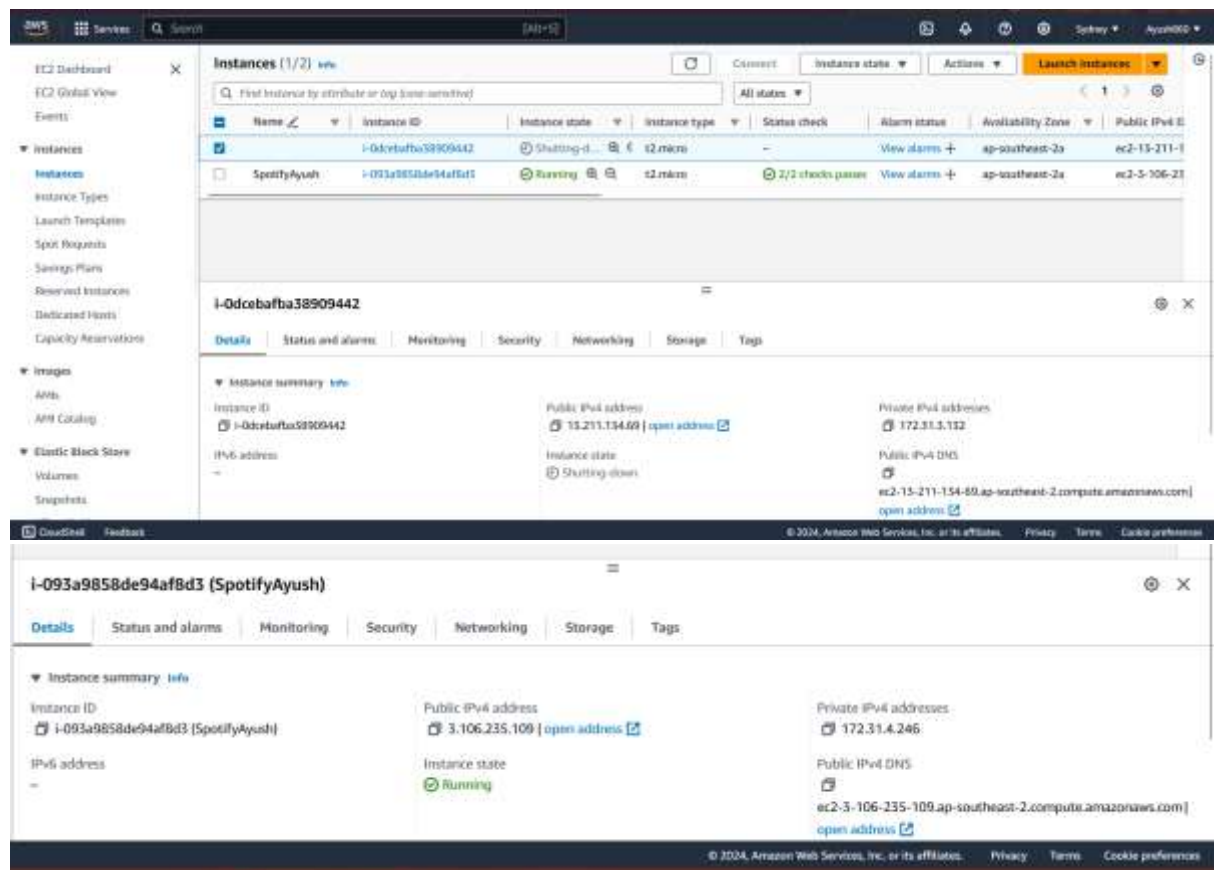
Savings Plans

Reserved Instances

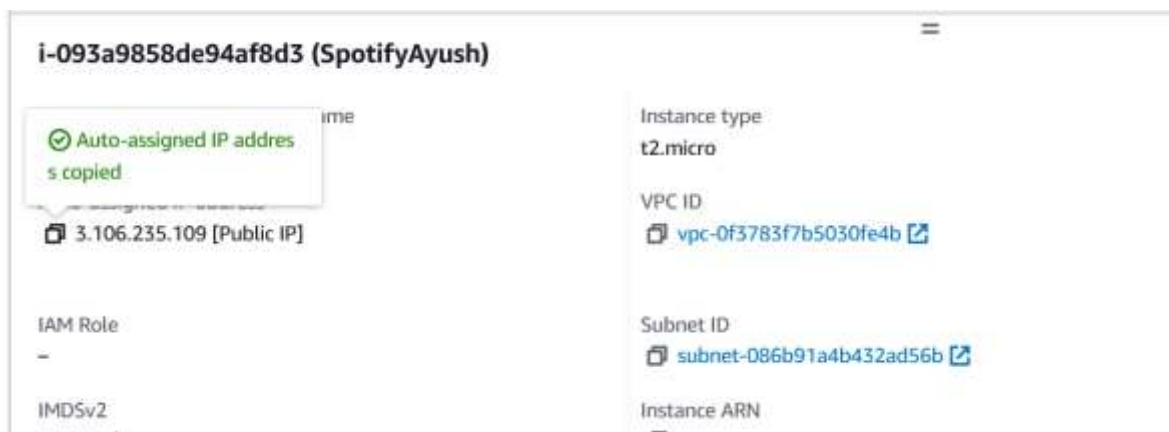
Dedicated Hosts

Capacity Reservations

## 15. Instance created



## 16. Copy the auto assigned ip

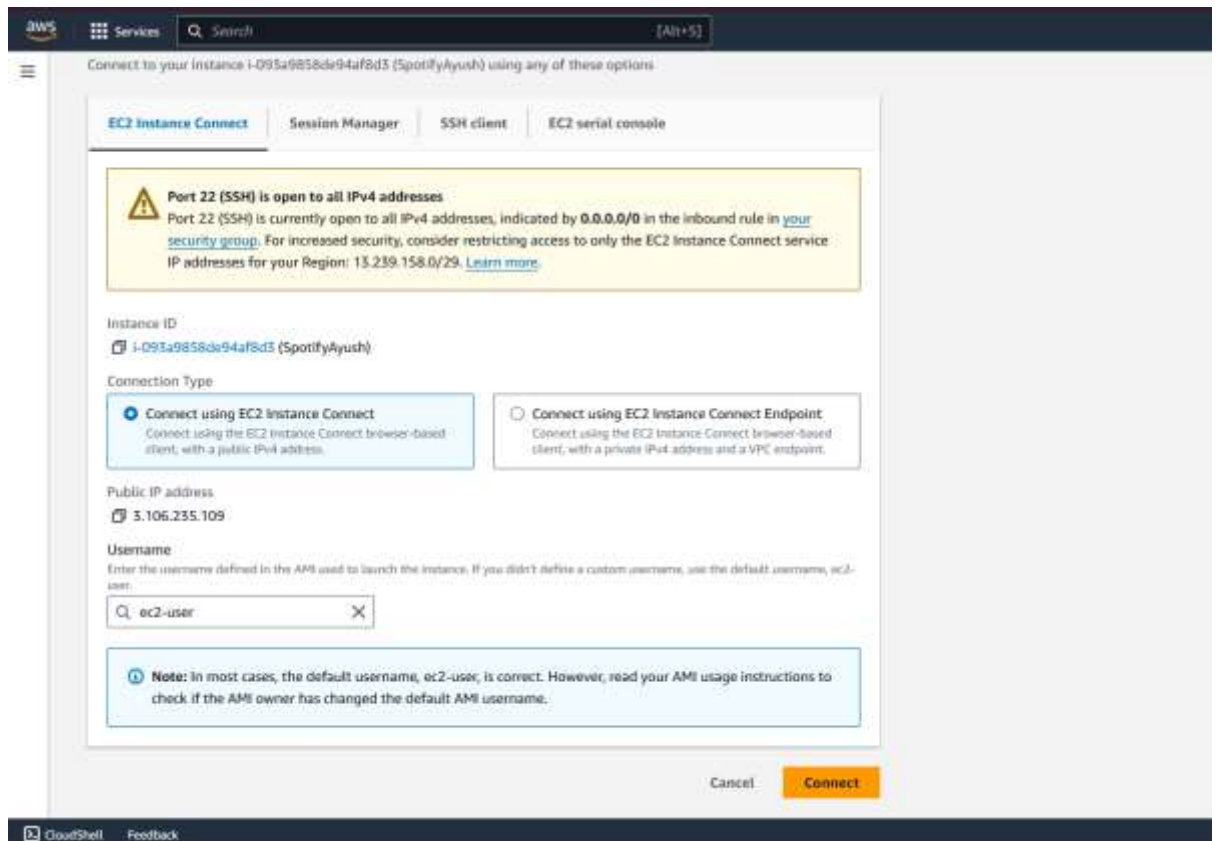


## 17. Open this ip in a new tab and click on connect

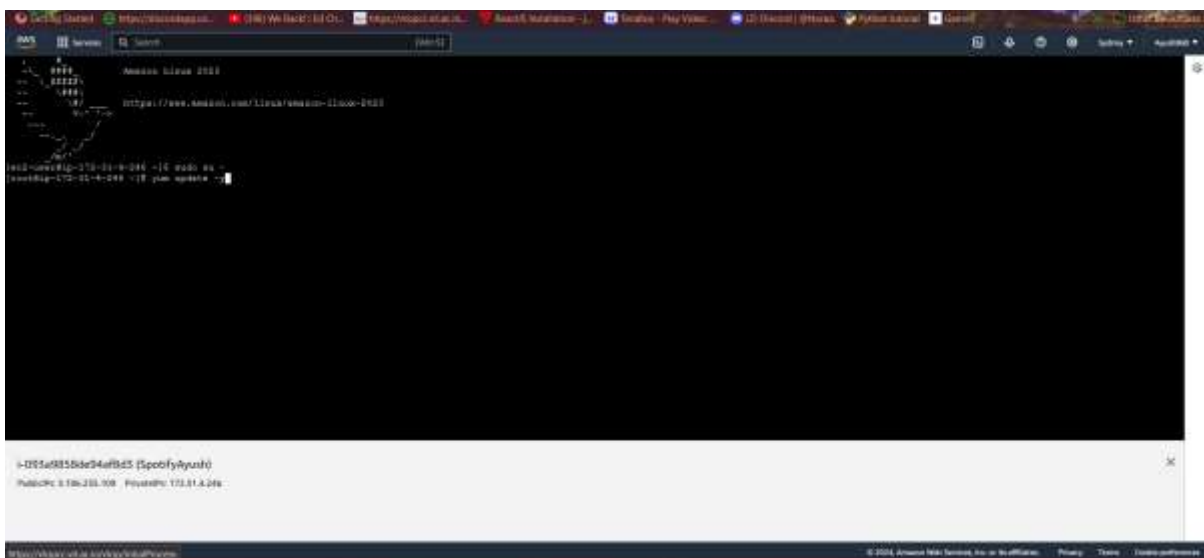




## 18. Now click on connect



## 19. Instance has been successfully connected and we can see the linux console



## 20. Further codes Sudo su-

21. Install necessary packages
22. We are running a flask application on this instance so to do so we are installing the necessary packages

Firstly we install pip3

Then we install flask

```

$ sudo yum install python3-pip
Last metadata expiration check: 515d13 ago on Tue Aug 13 09:25:54 2024.
Dependencies resolved.
=====================================================================================================================================
Package                Architecture           Version                Repository              Size
=====================================================================================================================================
Installing:
python3-pip             x86_64                 21.3.1-0.el8ana2022.5.7 epaonline               1.0 M
Installing weak dependencies:
libcrypt-compat         x86_64                4.4.33-7.el8ana2022 epaonline               72 k
Transaction Summary
=====================================================================================================================================
Install 2 Packages

Total download size: 1.1 M
Installed size: 11 M
Is this ok [y/N]: y
Downloading Packages:
(1/2): libcrypt-compat-4.4.33-7.el8ana2022.x86_64.rpm 1.3 MB/s | 70 kB 00:00
(2/2): python3-pip-21.3.1-0.el8ana2022.5.7.x86_64.rpm 12 MB/s | 1.0 MB 00:00
Total: 12 MB/s | 1.1 MB 00:00
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction:
Preparing: 1/1
Installing: 1/1: python3-pip-21.3.1-0.el8ana2022.x86_64 1/1
Installing: 1/1: python3-pip-21.3.1-0.el8ana2022.5.7.x86_64 2/1
Running scriptlet: 1/1: python3-pip-21.3.1-0.el8ana2022.5.7.x86_64 2/1
Installing: 1/1: python3-pip-21.3.1-0.el8ana2022.x86_64 2/1
Verifying: 1/1: python3-pip-21.3.1-0.el8ana2022.x86_64 2/1
Transaction successful.

```

```

$ sudo yum install flask
Last metadata expiration check: 515d13 ago on Tue Aug 13 09:25:54 2024.
Dependencies resolved.
=====================================================================================================================================
Package                Architecture           Version                Repository              Size
=====================================================================================================================================
Installing:
flask                   x86_64                 2.0.3-0.el8ana2022.5.7 epaonline               1.0 M
Installing weak dependencies:
werkzeug                x86_64                 2.2.3-0.el8ana2022.5.7 epaonline               1.0 M
jinja2                   x86_64                 3.1.2-0.el8ana2022.5.7 epaonline               1.0 M
markupsafe               x86_64                 2.1.3-0.el8ana2022.5.7 epaonline               1.0 M
importlib-metadata       x86_64                 4.12.0-0.el8ana2022.5.7 epaonline               1.0 M
zipp                     x86_64                 3.15.0-0.el8ana2022.5.7 epaonline               1.0 M
typing-extensions         x86_64                 4.5.0-0.el8ana2022.5.7 epaonline               1.0 M
Transaction Summary
=====================================================================================================================================
Install 6 Packages

Total download size: 6.0 M
Installed size: 11 M
Is this ok [y/N]: y
Downloading Packages:
(1/6): flask-2.0.3-0.el8ana2022.5.7.x86_64.rpm 1.3 MB/s | 70 kB 00:00
(2/6): werkzeug-2.2.3-0.el8ana2022.5.7.x86_64.rpm 12 MB/s | 1.0 MB 00:00
(3/6): jinja2-3.1.2-0.el8ana2022.5.7.x86_64.rpm 12 MB/s | 1.0 MB 00:00
(4/6): markupsafe-2.1.3-0.el8ana2022.5.7.x86_64.rpm 12 MB/s | 1.0 MB 00:00
(5/6): importlib-metadata-4.12.0-0.el8ana2022.5.7.x86_64.rpm 12 MB/s | 1.0 MB 00:00
(6/6): zipp-3.15.0-0.el8ana2022.5.7.x86_64.rpm 12 MB/s | 1.0 MB 00:00
Total: 12 MB/s | 6.0 MB 00:00
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction:
Preparing: 1/1
Installing: 1/1: flask-2.0.3-0.el8ana2022.5.7.x86_64 1/1
Installing: 1/1: werkzeug-2.2.3-0.el8ana2022.5.7.x86_64 2/1
Installing: 1/1: jinja2-3.1.2-0.el8ana2022.5.7.x86_64 3/1
Installing: 1/1: markupsafe-2.1.3-0.el8ana2022.5.7.x86_64 4/1
Installing: 1/1: importlib-metadata-4.12.0-0.el8ana2022.5.7.x86_64 5/1
Installing: 1/1: zipp-3.15.0-0.el8ana2022.5.7.x86_64 6/1
Verifying: 1/1: flask-2.0.3-0.el8ana2022.5.7.x86_64 6/1
Transaction successful.

```

23. \$ sudo yum install python3-pip
24. Complete!

25. `mkdir ~/scripts`
26. `nano ~/scripts/my_script.py`
27. `cd ~`
28. `cd`
29. `python3 /home/ec2-user/scripts/my_script.py`
30. The code in python file is

```
from flask import Flask
```

```
app = Flask(__name__)
```

```
@app.route('/')  
def hello_world():  
    return 'Hello, World!'
```

```
if __name__ == '__main__':  
    app.run(host='0.0.0.0', port=5000)
```

```
Complete!  
[ec2-user@ip-172-31-4-246 ~]$ mkdir ~/scripts  
[ec2-user@ip-172-31-4-246 ~]$ nano ~/scripts/my_script.py  
[ec2-user@ip-172-31-4-246 ~]$ cd ~  
[ec2-user@ip-172-31-4-246 ~]$ cd  
[ec2-user@ip-172-31-4-246 ~]$ python3 /home/ec2-user/scripts/my_script.py
```

Flask application has been successfully launched

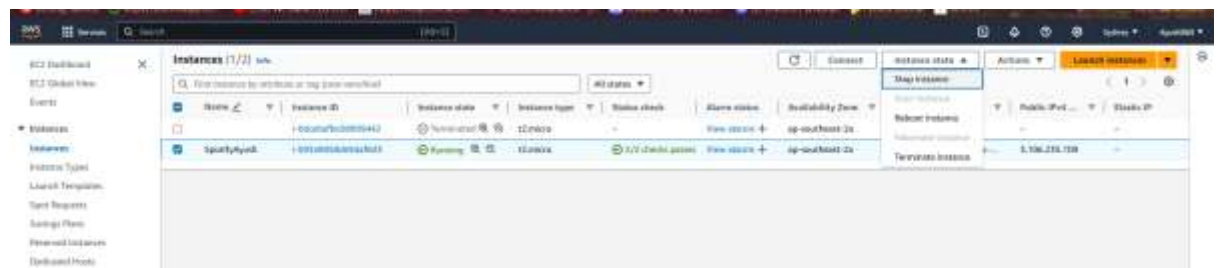


We can see the output showing

**Serving Flask app 'my\_script':** This confirms Flask is running application named my\_script.py.

```
python3 /home/ec2-user/scripts/my_script.py
* Serving Flask app 'my_script'
* Debug mode: off
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on all addresses (0.0.0.0)
* Running on http://127.0.0.1:5000
* Running on http://172.31.4.246:5000
Press CTRL+C to quit
```

31. After this we stop the instance



We can see the instance has stopped

<input type="checkbox"/>		i-0dceba3fba38909442	Terminated
<input checked="" type="checkbox"/>	SpotifyAyush	i-093a9858de94af8d3	Stopped