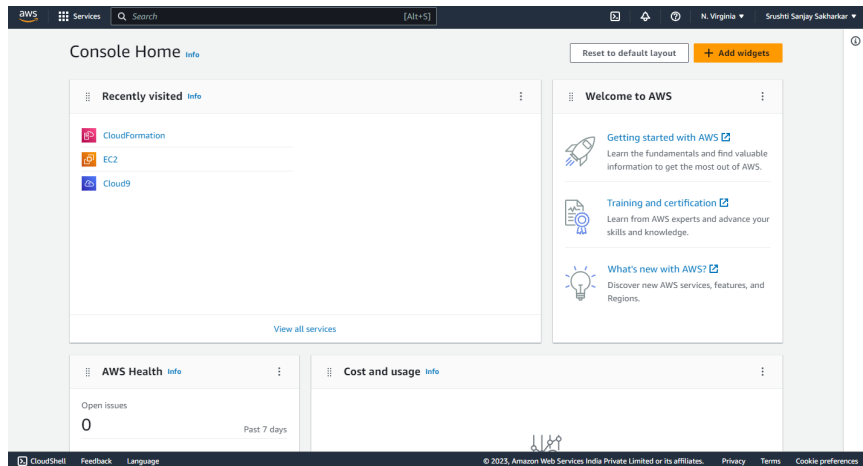
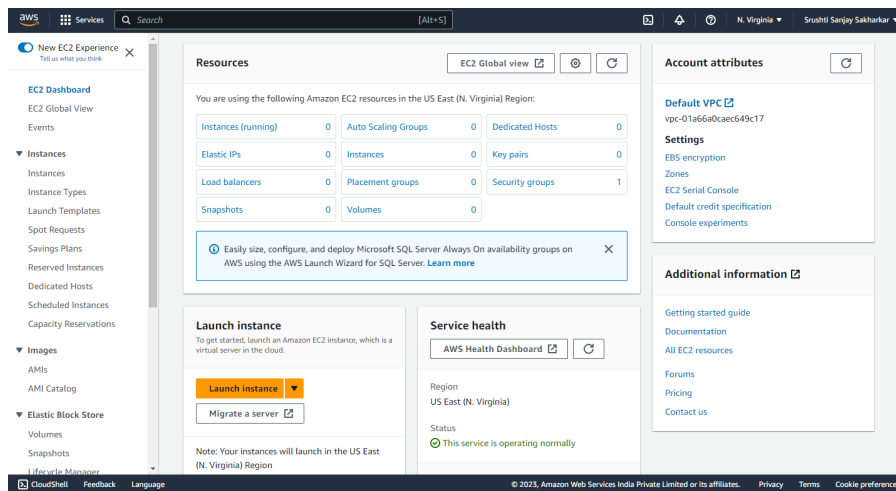


7. Laboratory Exercise:

1. Login to AWS account.

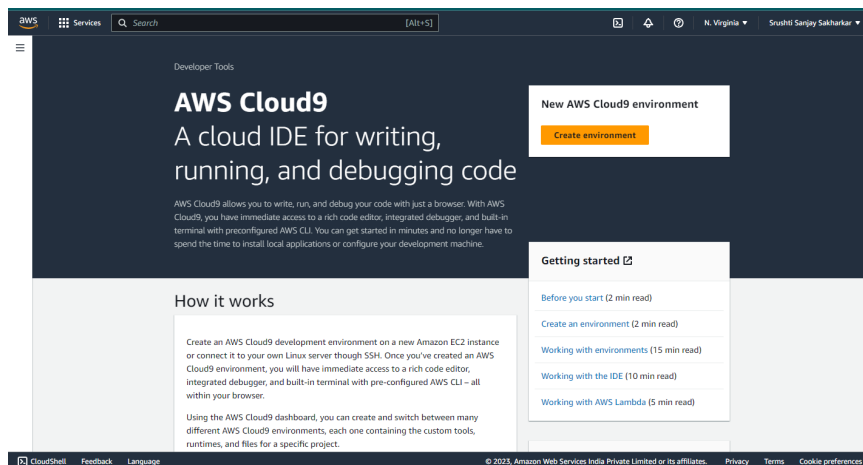


2. Check EC2 and cloudFormation dashboard. Make sure no instances and stack running for your account.



3. Navigate to Cloud 9 IDE service from Developer tools section

4. Click on Create Environment



5. Provide the name for the Environment (WebAppIDE) and click on next.

Create environment [Info](#)

Details

Name
expenv
Limit of 60 characters, alphanumeric, and unique per user.

Description - optional
Limit 200 characters.

Environment type [Info](#)
Determines what the Cloud9 IDE will run on.

☒ **New EC2 instance**
Cloud9 creates an EC2 instance in your account. The configuration of your EC2 instance cannot be changed by Cloud9 after creation.

☐ **Existing compute**
You have an existing instance or server that you'd like to use.

New EC2 instance

Instance type [Info](#)
The memory and CPU of the EC2 instance that will be created for Cloud9 to run on.

☒ **t2.micro (1 GiB RAM + 1 vCPU)**
Free-tier eligible. Ideal for educational users and exploration.

☐ **t3.small (2 GiB RAM + 2 vCPU)**
Recommended for small web projects.

☐ **m5.large (8 GiB RAM + 2 vCPU)**
Recommended for production and most general-purpose development.

☐ **Additional instance types**
Explore additional instances to fit your need.

Platform [Info](#)
This will be installed on your EC2 instance. We recommend Amazon Linux 2.

Amazon Linux 2

Timeout
How long Cloud9 can be inactive (no user input) before auto-hibernating. This helps prevent unnecessary charges.

30 minutes

6. Keep all the Default settings as it is.

New EC2 instance

Instance type [Info](#)
The memory and CPU of the EC2 instance that will be created for Cloud9 to run on.

☒ **t2.micro (1 GiB RAM + 1 vCPU)**
Free-tier eligible. Ideal for educational users and exploration.

☐ **t3.small (2 GiB RAM + 2 vCPU)**
Recommended for small web projects.

☐ **m5.large (8 GiB RAM + 2 vCPU)**
Recommended for production and most general-purpose development.

☐ **Additional instance types**
Explore additional instances to fit your need.

Platform [Info](#)
This will be installed on your EC2 instance. We recommend Amazon Linux 2.

Amazon Linux 2

Timeout
How long Cloud9 can be inactive (no user input) before auto-hibernating. This helps prevent unnecessary charges.

30 minutes

7. Review the Environment name and Settings and click on Create Environment

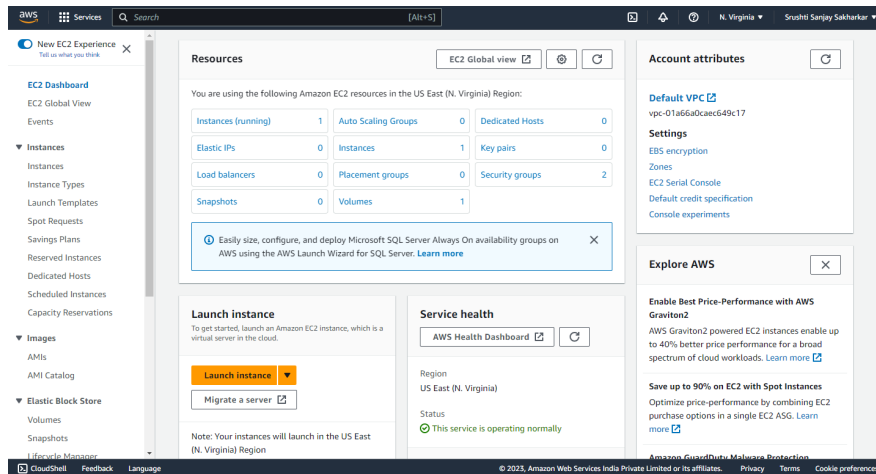
Creating expenv. This can take several minutes. While you wait, see [Best practices for using AWS Cloud9](#)

Environments (1) [Delete](#) [View details](#) [Open in Cloud9](#) [Create environment](#)

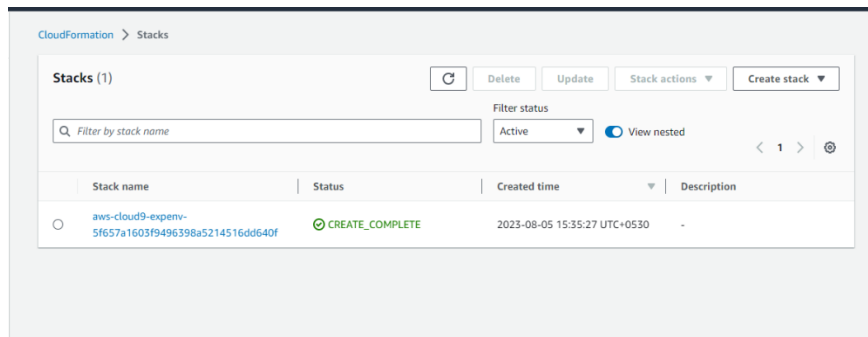
My environments

	Name ▲	Cloud9 IDE	Environment type	Connection	Permission	Owner ARN
<input type="radio"/>	expenv	Open	EC2 instance	AWS Systems Manager (SSM)	Owner	arn:aws:iam::928565427545:root

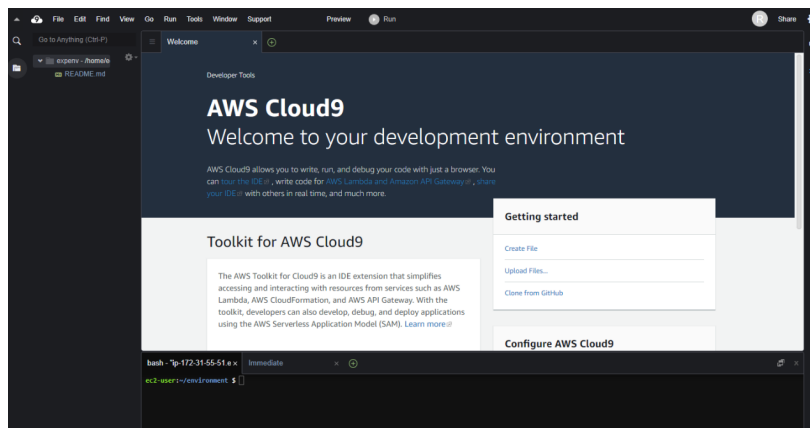
8. Go to the EC2 dashboard to ensure a new instance is running



9. Go to CloudFormation to ensure a new stack is created. check resources and templates tabs.

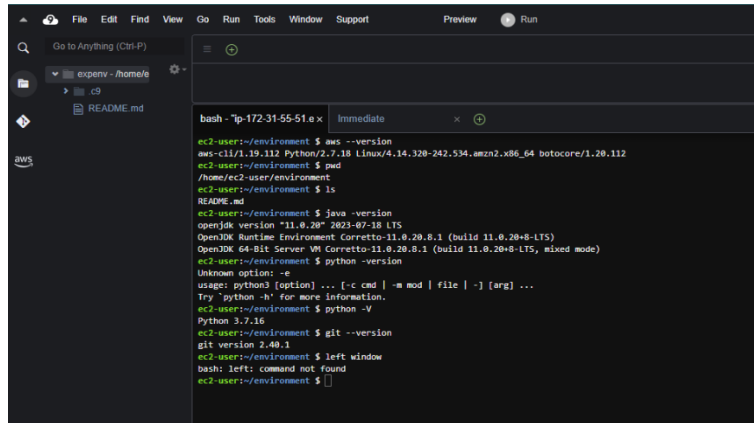


10. Launch IDE



11. Run some commands on the terminal.

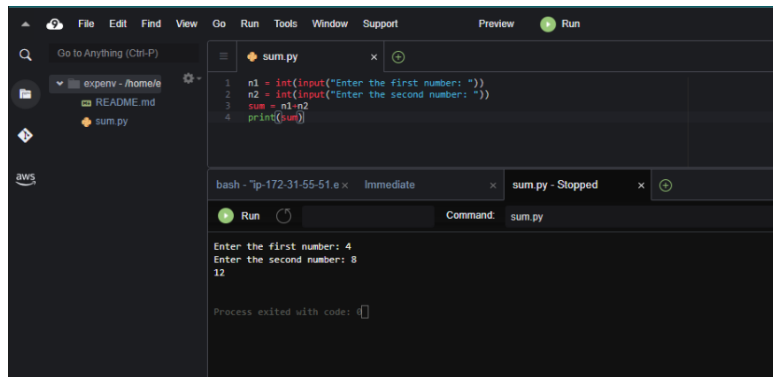
a. Check the current git version supported by IDE. (Post Experiment Exercise)



```
bash - "ip-172-31-55-51.ec2" x Immediate x
ec2-user:~/environment $ aws --version
aws-cli/1.19.112 Python/2.7.18 Linux/4.14.320-242.534.amzn2.x86_64 botocore/1.20.112
ec2-user:~/environment $ pwd
/home/ec2-user/environment
ec2-user:~/environment $ ls
README.md
ec2-user:~/environment $ java -version
openjdk version "11.0.20" 2023-07-18 LTS
OpenJDK Runtime Environment Corretto-11.0.20.8.1 (build 11.0.20+8-LTS)
OpenJDK 64-Bit Server VM Corretto-11.0.20.8.1 (build 11.0.20+8-LTS, mixed mode)
ec2-user:~/environment $ python --version
Unknown option: -e
usage: python3 [option] ... [-c cmd | -m mod | file | -] [arg] ...
Try 'python -h' for more information.
ec2-user:~/environment $ python -V
Python 3.7.16
ec2-user:~/environment $ git --version
git version 2.40.1
ec2-user:~/environment $ left window
bash: left: command not found
ec2-user:~/environment $
```

12. Write simple python program in an IDE

13. Save changes to the py file , run the code and check the result in the terminal.

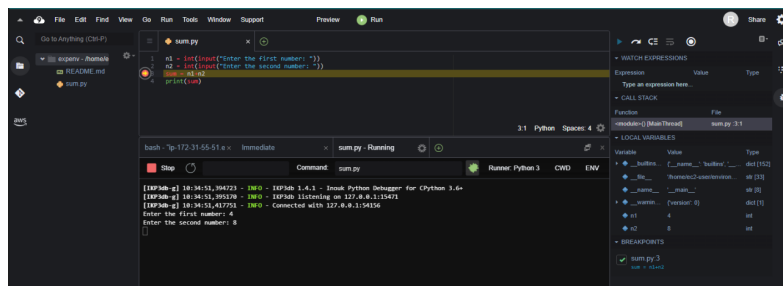


```
1 n1 = int(input("Enter the first number: "))
2 n2 = int(input("Enter the second number: "))
3 sum = n1+n2
4 print(sum)

bash - "ip-172-31-55-51.ec2" x Immediate x sum.py - Stopped x
Run Command: sum.py

Enter the first number: 4
Enter the second number: 8
12

Process exited with code: 0
```



```
1 n1 = int(input("Enter the first number: "))
2 n2 = int(input("Enter the second number: "))
3 sum = n1+n2
4 print(sum)

bash - "ip-172-31-55-51.ec2" x Immediate x sum.py - Running x
Command: sum.py
Run Python 3.11 CWD: ENV

[EXPLAN-0] 18:34:51.94723 - INFO - IPython 3.4.1 - Inout Python Debugger for CPython 3.6
[EXPLAN-0] 18:34:51.94876 - INFO - IPython listening on 127.0.0.1:5471
[EXPLAN-0] 18:34:51.417793 - INFO - Connected with 127.0.0.1:5476

Enter the first number: 4
Enter the second number: 8
```

14. Click on settings option. Change some of the settings.

