

GITLAB, BASIC AWS CLOUD USING PYTHON
FOUNDATIONAL – GETTING SET UP

Things to have done before

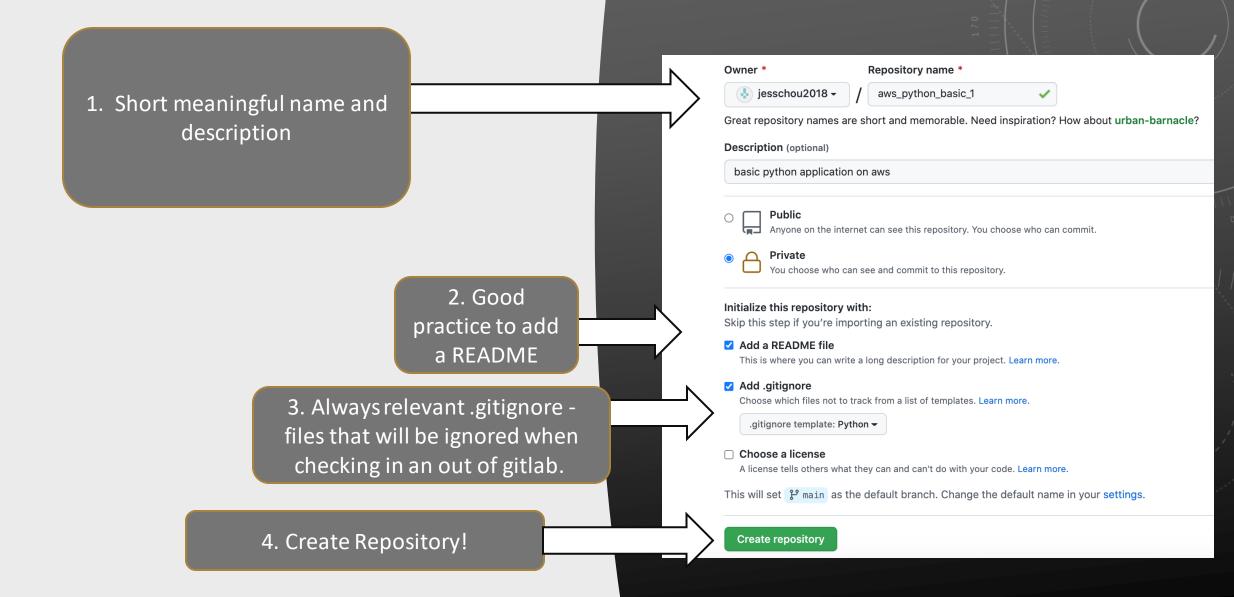
- 1) Gitlab account set up
- 2) Create AWS Free Tier account

#### Aims of this section

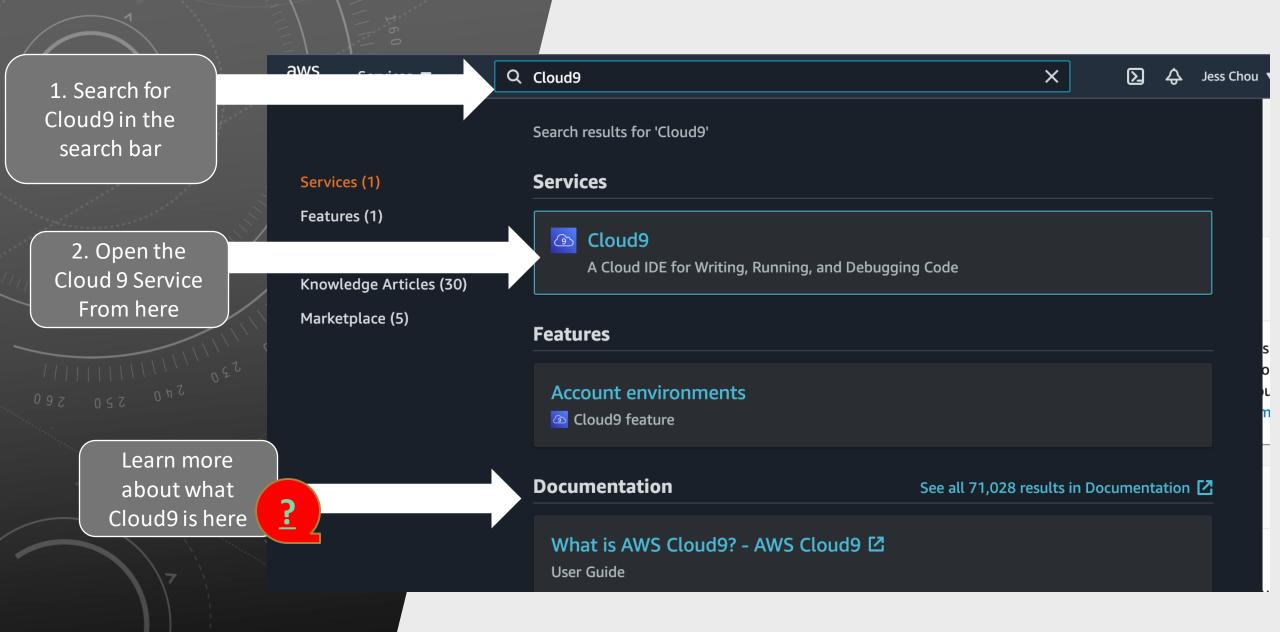
- Establish a new git repository
- Establish a new AWS EC2 instance
- Establish a new virtual environment within our EC2 instance
- Set up our SSH key so that our AWS EC2 environment can talk to git, Cloned a git repository into our EC2 instance



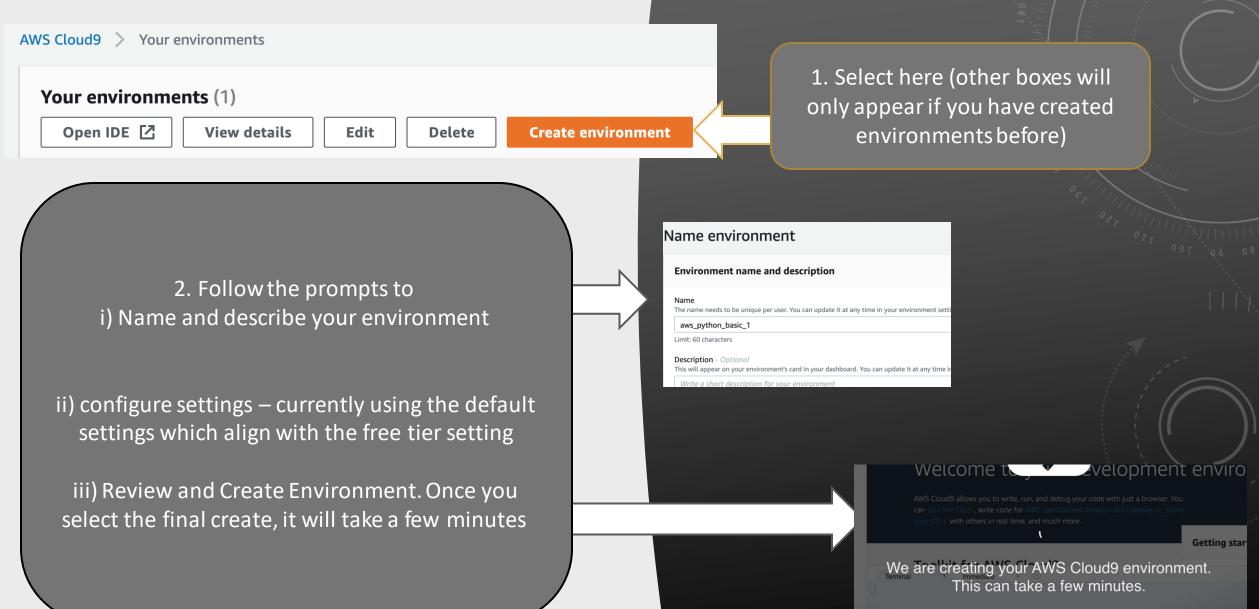
#### 1. CREATE GITLAB REPOSITORY



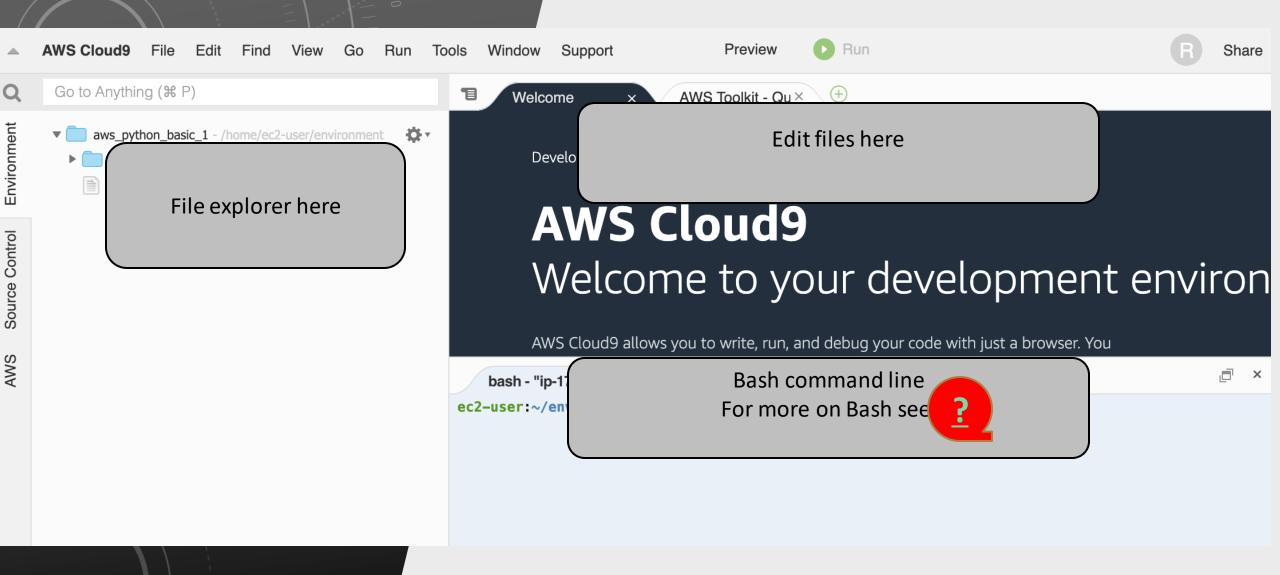
## 2. START AWS CLOUD 9



# 3. CREATE NEW CLOUD 9 ENVIRONMENT



## 4. CLOUD 9 BASICS



#### 5. GENERATE SSH KEYS

1. Need our Cloud9 Environment and GitLab to be able to send information back and forth to each other.

We need to set up an SSH connection between the two.

What is SSH?
Basic overview
from techterms.com
More detailed (from
Oreilly.com):

2. To generate an SSH Key , use the following command in bash (use defaults) ssh-keygen -t rsa

ec2-user:~/environment \$ ssh-keygen -t rsa
Generating public/private rsa key pair.

Then, print out SSH key — cat /home/ec2-user/.ssh/id\_rsa.pub

ec2-user:~/environment \$ cat /home/ec2-user/.ssh/id\_rsa.pub

Copy the text output (not shown here) to your clipboard

## 6. SET UP VIRTUAL ENVIRONMENT IN CLOUD 9

1. Continuing in your AWS Cloud 9 Environment, run the following commands in your bash screen i) change into the directory that is now there as a result of cloning the git repository cd aws\_python\_basic\_1 ii) create the virtual environment python3 -m venv ~/.aws\_python\_basic\_1 iii) activate the virtual environment (otherwise you will have created it but won't actually be using it) source ~/.aws\_python\_basic\_1/bin/activate

iv) Finally, add some git configs – this helps you avoid a warning later on git config --global user.name "Jess Chou" git config --global user.email <a href="mail@email.com">email@email.com</a>

```
ec2-user:~/environment $ cd aws_python_basic_1
ec2-user:~/environment/aws_python_basic_1 (main) $ python3 -m venv ~/.aws_python_basic_1

ec2-user:~/environment/aws_python_basic_1 (main) $ source ~/.aws_python_basic_1/bin/activate
(.aws_python_basic_1) ec2-user:~/environment/aws_python_basic_1 (main) $ git config --global user.email
(.aws_python_basic_1) ec2-user:~/environment/aws_python_basic_1 (main) $ git config --global user.name "Jess Chou"
(.aws_python_basic_1) ec2-user:~/environment/aws_python_basic_1 (main) $ [
```



#### 7. NOW WE HAVE

Established a new git repository

Established a new AWS EC2 instance

Established a new virtual environment within our EC2 instance

Set up our SSH key so that our AWS EC2 environment can talk to git, Cloned a git repository into our EC2 instance

Updated our EC2 environment with some key configs for when we push to git