



# Deploying Streamlit App on EC2

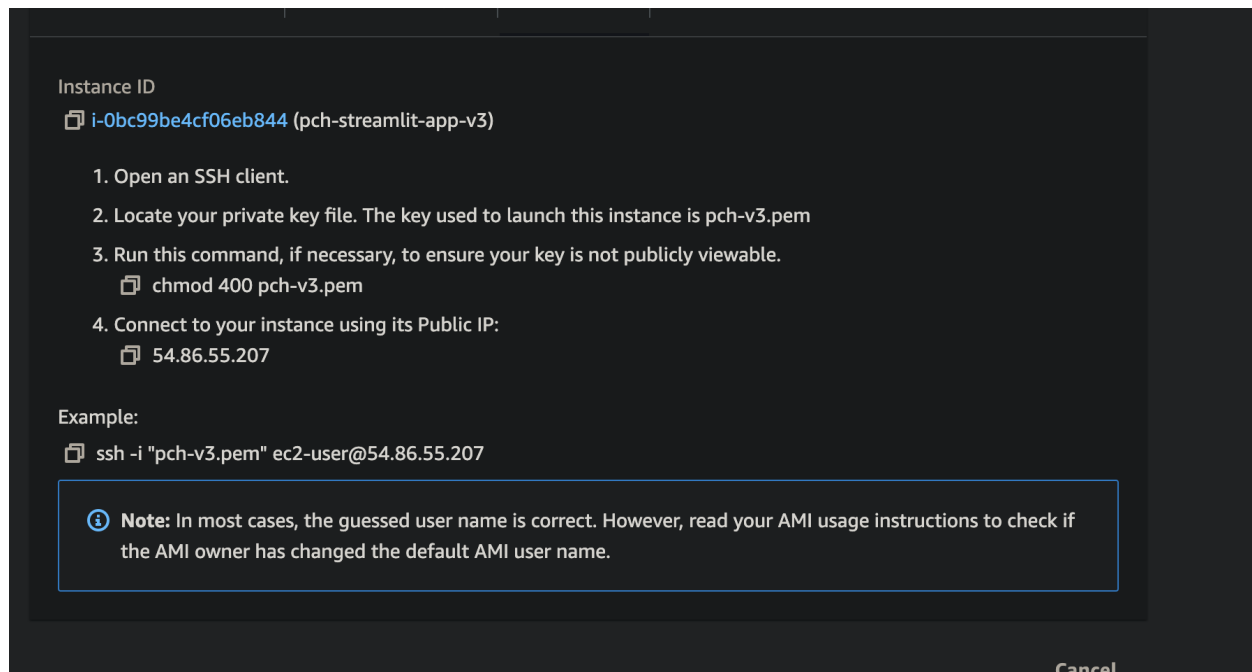
## Creating EC2 instance:

To create an EC2 instance, follow these steps:

1. Log in to the AWS Management Console.
2. Open the Amazon EC2 console.
3. Choose "Launch Instance" to start the instance creation wizard.
4. Select an Amazon Machine Image (AMI) based on your requirements.
5. Choose an instance type that suits your needs.
6. Configure the instance details, such as the number of instances, network settings, and storage options.
7. Add any additional storage volumes if needed.
8. Configure security groups to control inbound and outbound traffic. ( *You also have to add the inbound change by clicking in the EC2's security inbound rule and add an inbound rule for port 8501 and give it public access* )
9. Review your instance configuration and make any necessary changes.
10. Choose option to create a new one to securely connect to your instance.
11. Launch the instance.

After creating the EC2 instance, you can connect to it using SSH and perform the necessary configurations and installations as mentioned in the earlier instructions.

## Connecting to EC2



To connect to your EC2 instance, you can use SSH with the pem file provided by AWS. Open a BASH terminal in your VS code and name it AWS for connecting to EC2. Then, use the following command to open the pem file for security:

```
ssh -i "cic-genai-2-demo.pem" ec2-user@54.86.55.207
```

Once connected, start a virtual environment and activate it using the following commands:

```
python3 -m venv myenv  
source myenv/bin/activate
```

After activating the environment, install the requirements from the "requirements.txt" file:

```
pip install -r requirements.txt
```

To run the Streamlit app, use the command:

```
streamlit run Ask_a_question.py
```

To copy files from your local BASH terminal to the EC2 instance, you can use the `scp` command. For example:

```
scp -i "cic-genAI-2-demo-v2.pem" requirements.txt ec2-user@ec2-54-234-205-206.compute-1.amazonaws.com:/home/ec2-user/  
scp -i "pch-v3.pem" app.py ec2-user@54.86.55.207:/home/ec2-user/  
scp -i "pch-v3.pem" Y_C_logo.png ec2-user@54.86.55.207:/home/ec2-user/
```

To make the app always running and accessible, you can use TMUX. Install TMUX on your EC2 instance using the command:

```
sudo yum install tmux
```

Create a TMUX session by typing the following command:

```
tmux new -s StreamSession
```

Run the Streamlit app in the TMUX session:

```
streamlit run app.py
```

Detach the TMUX session by pressing `ctrl + B` followed by `D` (clicking on D after releasing the ctrl + B keys ). You can now use the external URL displayed to access your app. Don't forget to add an inbound rule for port 8501 in the EC2's security inbound rule for public access.

For more details and references, you can check the provided sources.

You can use the external URL it displays to run the app

- Note: You also have to add the inbound change by clicking in the EC2's security inbound rule and add an inbound rule for port 8501 and give it public access

You can use the external URL it displays to run the app

- To list all the tmux sessions:

```
tmux list-sessions
```

- To delete all Tmux sessions:

```
pkill -f tmux
```

## Sources

### Deploy GPT-3 Streamlit App on AWS EC2 | OpenAI | AWS Tutorials

In this tutorial, we will show you how to deploy a GPT-3 app built with Streamlit on an AWS EC2 instance.

We will cover all the necessary steps to set up the EC2 instance, install the


 <https://www.youtube.com/watch?v=904cW9IJ7LQ>

**Deploy**  
**GPT-3 Streamlit App**  
**on**  
**AWS EC2**



### How to Deploy a Streamlit App using an Amazon Free ec2 instance?

Data Apps on the web in 10 minutes


 <https://towardsdatascience.com/how-to-deploy-a-streamlit-app-using-an-amazon-free-ec2-instance-416a41f69dc3>



### How to kill all tmux sessions (or at least multiple sessions) from the CLI?


How to kill all tmux sessions (or at least multiple sessions) from the (Ubuntu) CLI?

When I do `ps aux | grep tmux` I see 3 processes:

 <https://askubuntu.com/questions/868186/how-to-kill-all-tmux-sessions-or-at-least-multiple-sessions-from-the-cli>



how to exit tmux session - Google Search

 <https://www.google.com/search?q=how+to+exit+tmux+session&oq=how+to+exit+tmux+session&aqs=chrome..69i57j0i22i30l8j0i390i650.6539j0j7&sourceid=chrome&ie=UTF-8>