

# Steps to Deploy a Website/Web Application on AWS Cloud

**Step 1: Create an AWS account or login to AWS Management Console.**

**Steps to create AWS account:**

Step 1: Provide a user email address

Step 2: Provide an account name with should not contain any special characters or space and click continue.

The screenshot shows the AWS 'Sign up for AWS' page. On the left, there is a graphic with the text 'Explore Free Tier products with a new AWS account.' and 'To learn more, visit aws.amazon.com/free.' Below this is an illustration of a hand placing a cube on top of other cubes. The main form area is titled 'Sign up for AWS'. It has two sections: 'Root user email address' with a text input field containing 'dikshitrjij@gmail.com', and 'AWS account name' with a text input field containing '21BCE2817'. Below these is an orange 'Verify email address' button. Underneath the button is an 'OR' separator and a 'Sign in to an existing AWS account' button. On the right side of the page, there is a vertical scrollbar and a 'Language' dropdown menu set to 'English'.


Step 3: Select How do you plan to use.

Step 4: Enter your full name and phone number which will be used for contacting.

The screenshot shows the AWS 'Sign up for AWS' page, specifically the 'Contact Information' section. On the left, there is a 'Free Tier offers' section with three options: 'Always free' (Never expires), '12 months free' (Start from initial sign-up date), and 'Trials' (Start from service activation date). The main form area is titled 'Sign up for AWS' and 'Contact Information'. It asks 'How do you plan to use AWS?' with two radio button options: 'Business - for your work, school, or organization' and 'Personal - for your own projects'. Below this is the question 'Who should we contact about this account?'. The form includes a 'Full Name' text input field, a 'Country code' dropdown menu set to '+1', a 'Phone Number' text input field containing '222-333-4444', a 'Country or Region' dropdown menu set to 'United States', and an 'Address line 1' text input field. On the right side of the page, there is a vertical scrollbar and a 'Language' dropdown menu set to 'English'.

Step 5: Enter County, Address with city, state and postal code and tick the check box to agree with the terms and conditions.

Step 6: Click Continue

**Trials**  
Start from service activation date

Country code

+91

Phone Number

9470007234

Country or Region

India

Address line 1

Bhelwa Tola

Address line 2

Apartment, suite, unit, building, floor, etc.

City

Jainagar

State, Province, or Region

Bihar

Postal Code

847226

Customers with an Indian contact address are served by Amazon Web Services India Private Limited, the local seller for AWS services in India.

☒ I have read and agree to the terms of the [AWS Customer Agreement](#).

Continue (step 2 of 5)

Step 7: Provide Debit/Credit Card details, billing address and PAN Number.

Step 8: Click Verify and Continue.

Step 9: OTP will be generated to verify the provided card details and as a formality 2 rupees will be deducted from your card attached bank account.

...

Cardholder's name

Dixit Raj

☒ Save card information for faster future payments

Securely save card information payments as per RBI guidelines. [Learn more.](#)

Billing address

☒ Use my contact address

Bhelwa Tola  
Jainagar Bihar 847226  
IN

☐ Use a new address

Do you have a PAN?

Permanent Account Number (PAN) is a ten-digit alphanumeric number issued by the Indian Income Tax Department. This 10-digit number is printed on the front of your PAN card.

☒ Yes

☐ No

You can go on the Tax Settings Page on Billing and Cost Management Console to update your PAN information.

DUOPR4425K

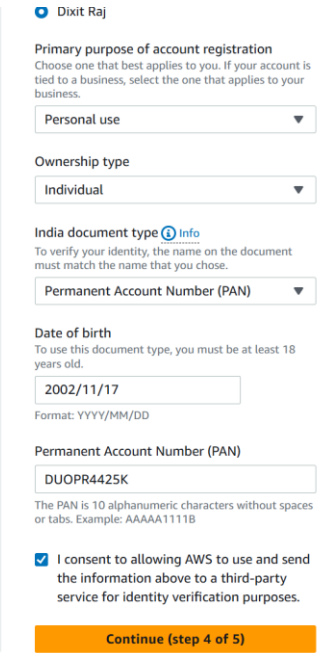

Verify and Continue (step 3 of 5)

You might be redirected to your bank's website to authorize the verification charge.

Step 10: Select the purpose of account and ownership type from a drag down window.

Step 11: Select a document type to verify your identity as I've chosen PAN so I'll write PAN Number and DOB.

Step 12: Click the check box and continue.



**Sign up for AWS**

**Confirm your identity**

Before you can use your AWS account, you must verify your phone number. When you continue, the AWS automated system will contact you with a verification code.

How should we send you the verification code?

☒ Text message (SMS)

☐ Voice call

Country or region code

India (+91)

Mobile phone number

9470007234

Security check

Type the characters as shown above

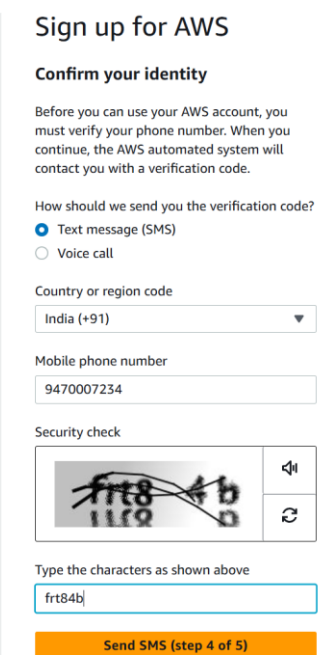

frt84b

**Continue (step 4 of 5)**

Step 13: You are asked to choose an option that how you would like to verify your phone Number.

Step 14: Enter Mobile Number which you want to verify and write captcha.

Step 15: Click on Send SMS.



**Sign up for AWS**

**Confirm your identity**

Before you can use your AWS account, you must verify your phone number. When you continue, the AWS automated system will contact you with a verification code.

How should we send you the verification code?

☒ Text message (SMS)

☐ Voice call

Country or region code

India (+91)

Mobile phone number

9470007234

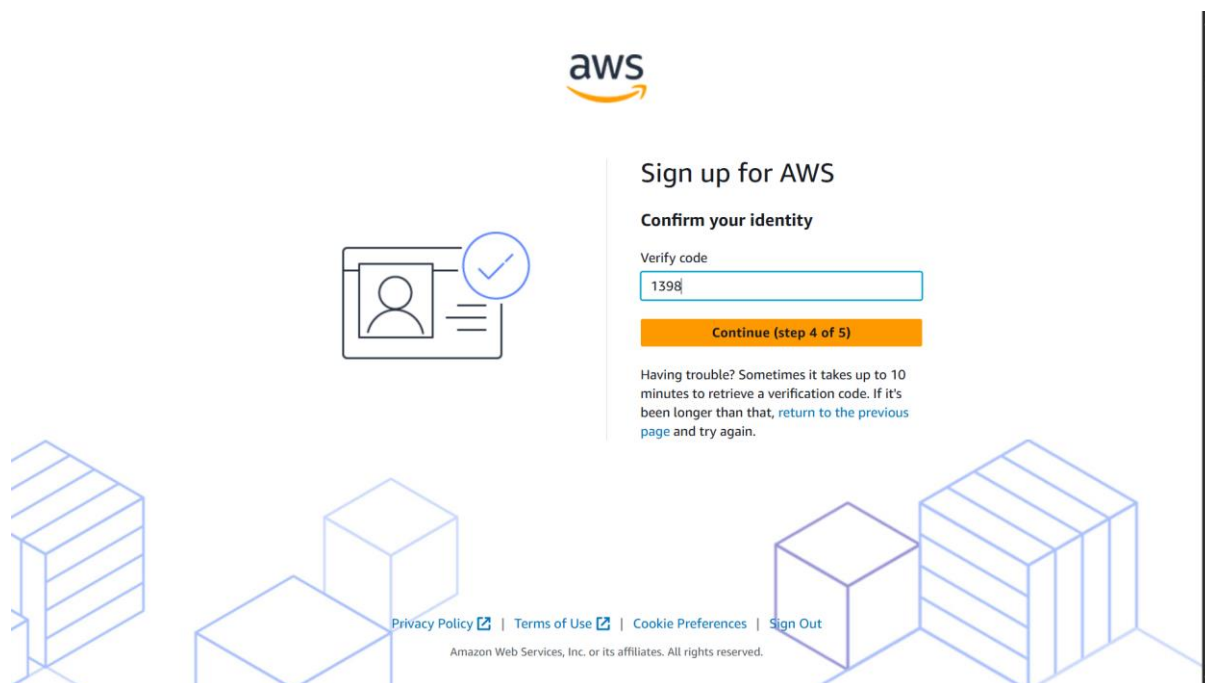
Security check

Type the characters as shown above

frt84b

**Send SMS (step 4 of 5)**

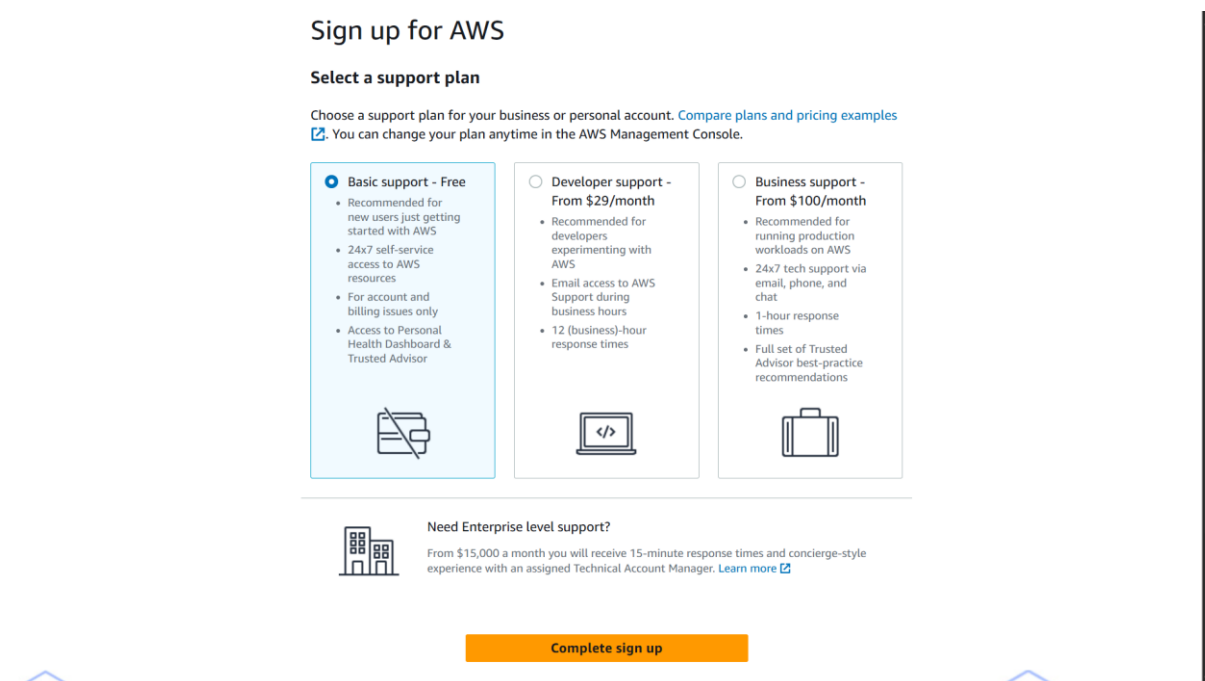
Step 16: Enter the verification code received on the phone number to verify the account and click continue.



The screenshot shows the AWS sign-up page for confirming identity. At the top is the AWS logo. Below it, the heading "Sign up for AWS" is followed by "Confirm your identity". On the left, there is an icon of a person's head and shoulders inside a box with a checkmark. To the right, there is a "Verify code" input field containing the number "1398". Below the input field is an orange button labeled "Continue (step 4 of 5)". Underneath the button, there is a paragraph of text: "Having trouble? Sometimes it takes up to 10 minutes to retrieve a verification code. If it's been longer than that, [return to the previous page](#) and try again." At the bottom of the page, there are links for "Privacy Policy", "Terms of Use", "Cookie Preferences", and "Sign Out". Below these links is a small line of text: "Amazon Web Services, Inc. or its affiliates. All rights reserved." The background features a faint illustration of server racks.

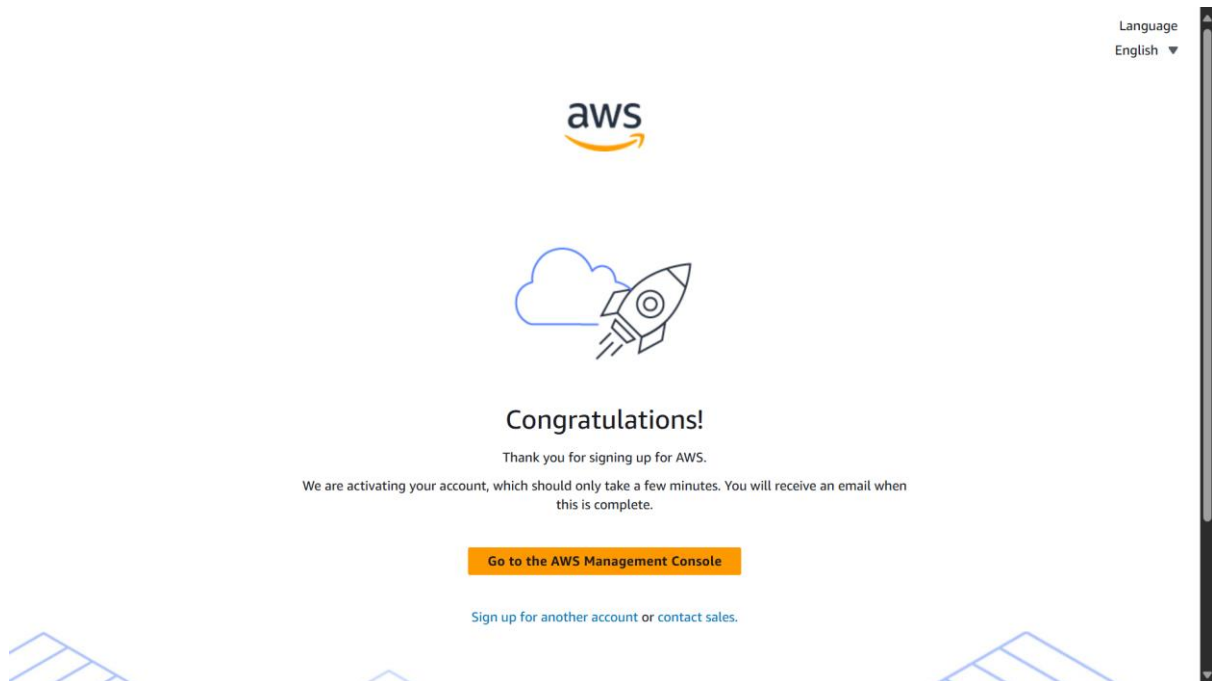
Step 17: Select the support plan you want. Here, I've selected Basic Support-Free as it is the free to use and enough to explore AWS services.

Step 18: Click Complete signup to complete sign up and now your account is created.

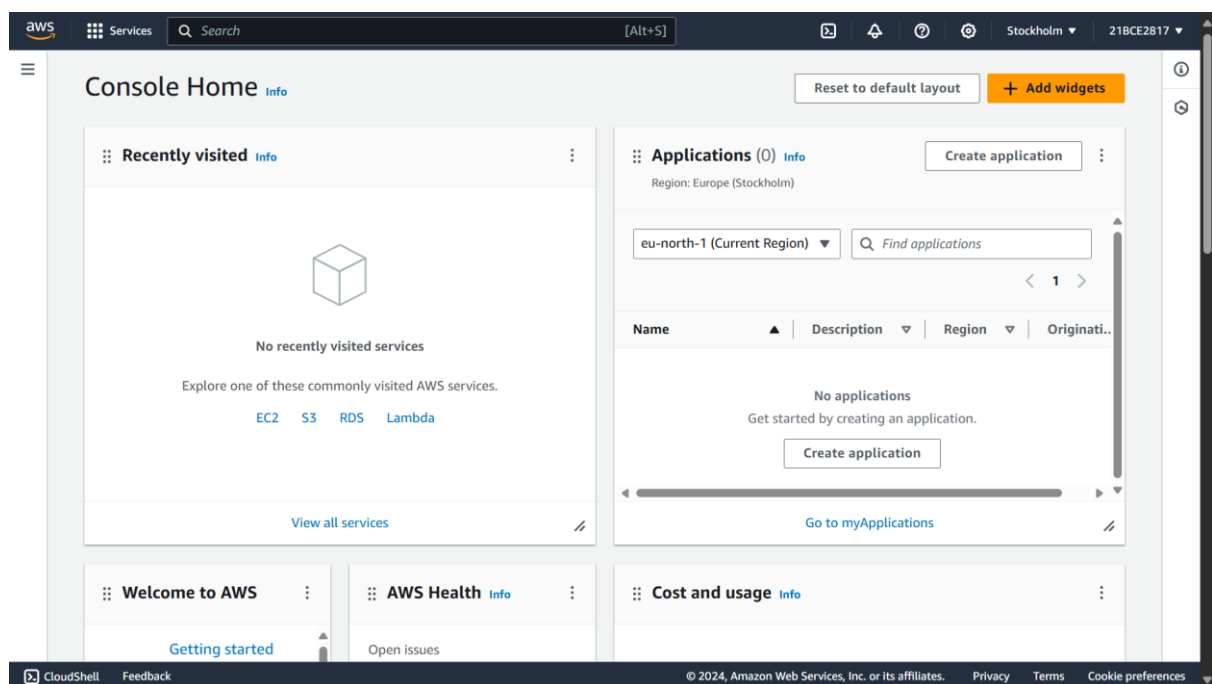


The screenshot shows the AWS sign-up page for selecting a support plan. At the top is the heading "Sign up for AWS". Below it is "Select a support plan". A paragraph of text says: "Choose a support plan for your business or personal account. [Compare plans and pricing examples](#). You can change your plan anytime in the AWS Management Console." Below this text are three selectable options, each with a radio button and a list of features. The first option, "Basic support - Free", is selected and has a blue border. It includes features like "Recommended for new users just getting started with AWS", "24x7 self-service access to AWS resources", "For account and billing issues only", and "Access to Personal Health Dashboard & Trusted Advisor". The second option, "Developer support - From \$29/month", includes features like "Recommended for developers experimenting with AWS", "Email access to AWS Support during business hours", and "12 (business)-hour response times". The third option, "Business support - From \$100/month", includes features like "Recommended for running production workloads on AWS", "24x7 tech support via email, phone, and chat", "1-hour response times", and "Full set of Trusted Advisor best-practice recommendations". Below these options is a section titled "Need Enterprise level support?" which includes a paragraph of text: "From \$15,000 a month you will receive 15-minute response times and concierge-style experience with an assigned Technical Account Manager. [Learn more](#)". At the bottom of the page is an orange button labeled "Complete sign up". The background features a faint illustration of server racks.

Step 19: Finally, AWS account is created and now click on Go to the AWS Management Console to open AWS Management Console Dashboard.



**Step II: Click on EC2 to start creating EC2 instance.**



### Step III: Provide a name to your EC2 instance.

aws Services [Alt+S] Mumbai 21BCE2817

EC2 > Instances > Launch an instance To exit full screen, move mouse to top of screen or press F11

## Launch an instance [Info](#)

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

### Name and tags [Info](#)

Name

 [Add additional tags](#)

### ▼ Application and OS Images (Amazon Machine Image) [Info](#)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

### Quick Start

[Amazon](#) [macOS](#) [Ubuntu](#) [Windows](#) [Red Hat](#) [SUSE Linux](#)

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### Step IV: Create a key pair.

Step 1: Enter a Pair name.

Step 2: Select key pair type as RSA and format as .ppk because we are using it with PuTTY.

Step 4: Click Create key Pair and the newly created key pair will automatically be selected.

aws Services [Alt+S] Mumbai 21BCE2817

## Create key pair

Key pair name

Key pairs allow you to connect to your instance securely.

The name can include up to 255 ASCII characters. It can't include leading or trailing spaces.

Key pair type

☒ RSA  
RSA encrypted private and public key pair

☐ ED25519  
ED25519 encrypted private and public key pair

Private key file format

☒ .pem  
For use with OpenSSH

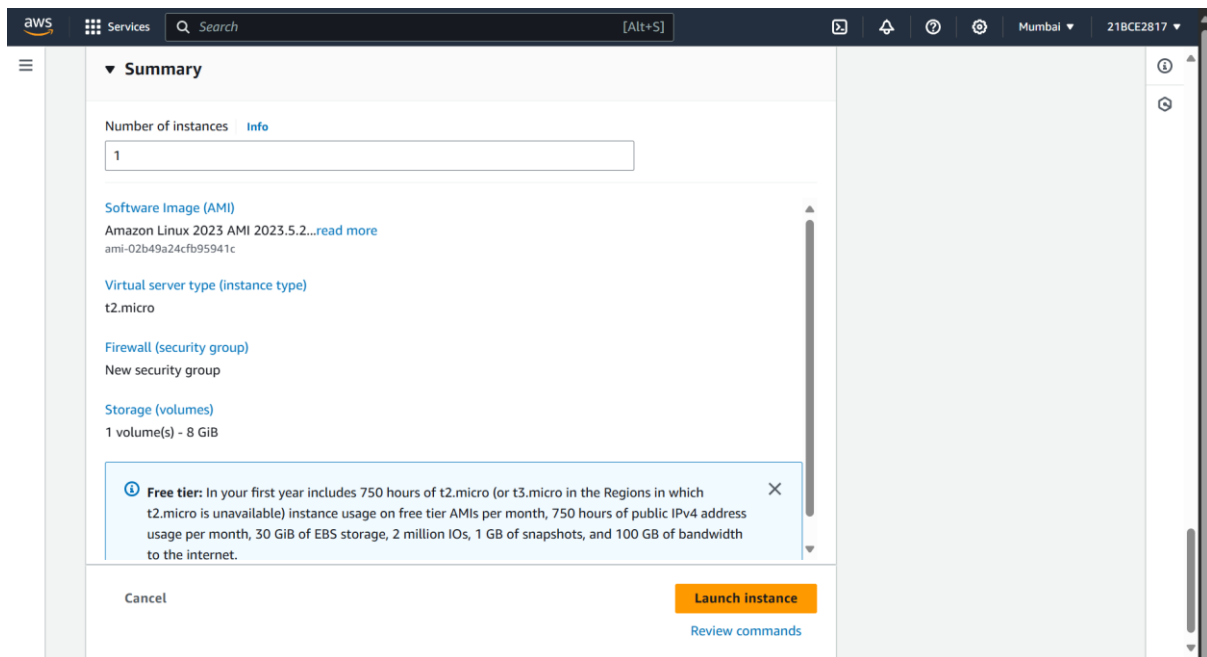
☐ .ppk  
For use with PuTTY

⚠ When prompted, store the private key in a secure and accessible location on your computer. You will need it later to connect to your instance. [Learn more](#)

Cancel [Create key pair](#)

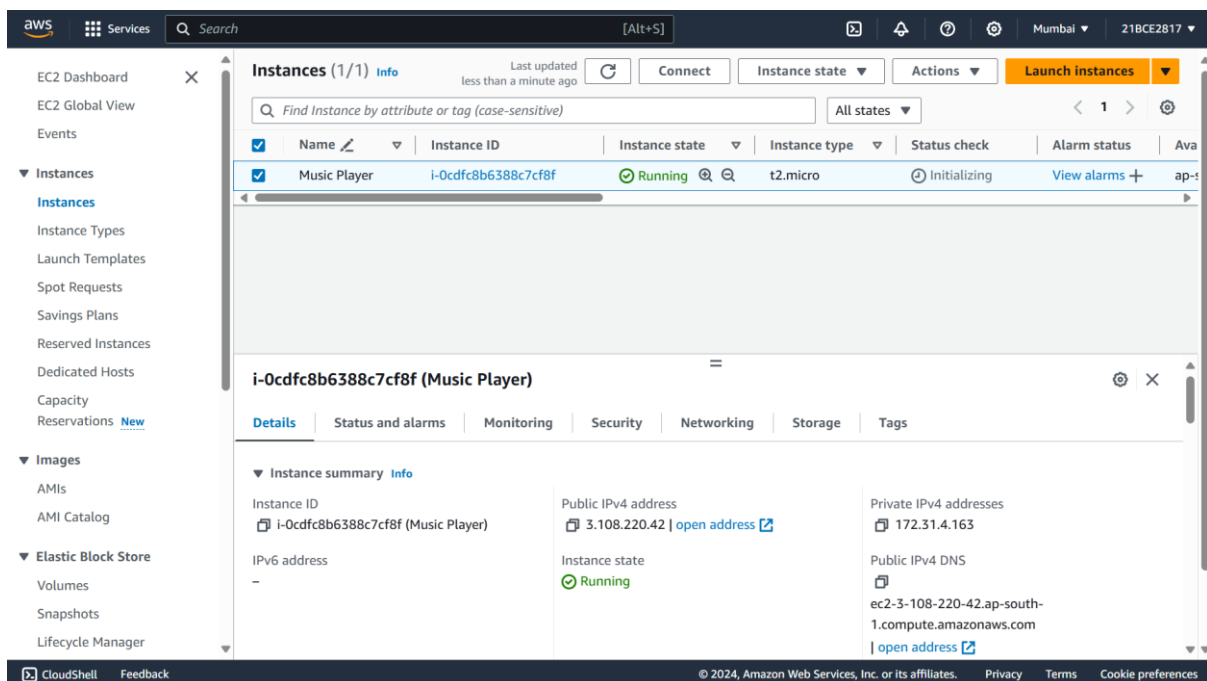
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**Step V: Leave rest of the things as it is as we don't need to configure the advance options like IAM, Route and all. Click Launch Instance to launch the created EC2 Instance.**



**Now our E2 Instance is created.**

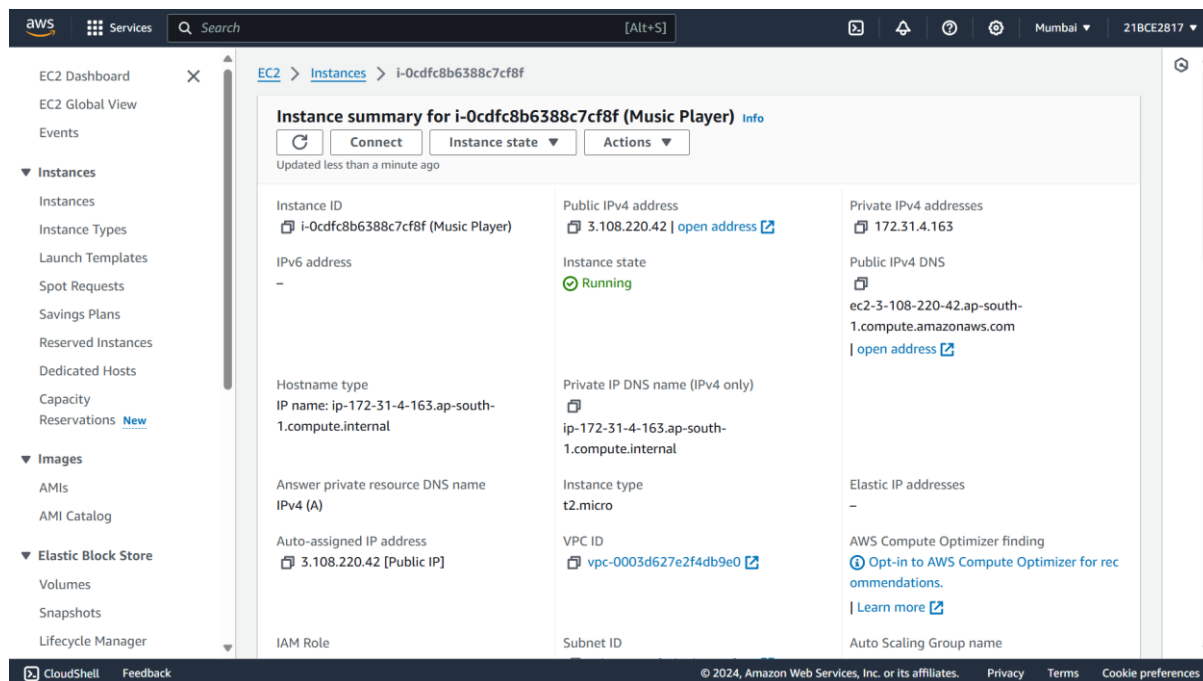
**Step VI: Click on the EC2 Instance which we created and click on Details.**



**Step VII: Copy Auto-assigned IP address and paste it on your browser and click enter.**

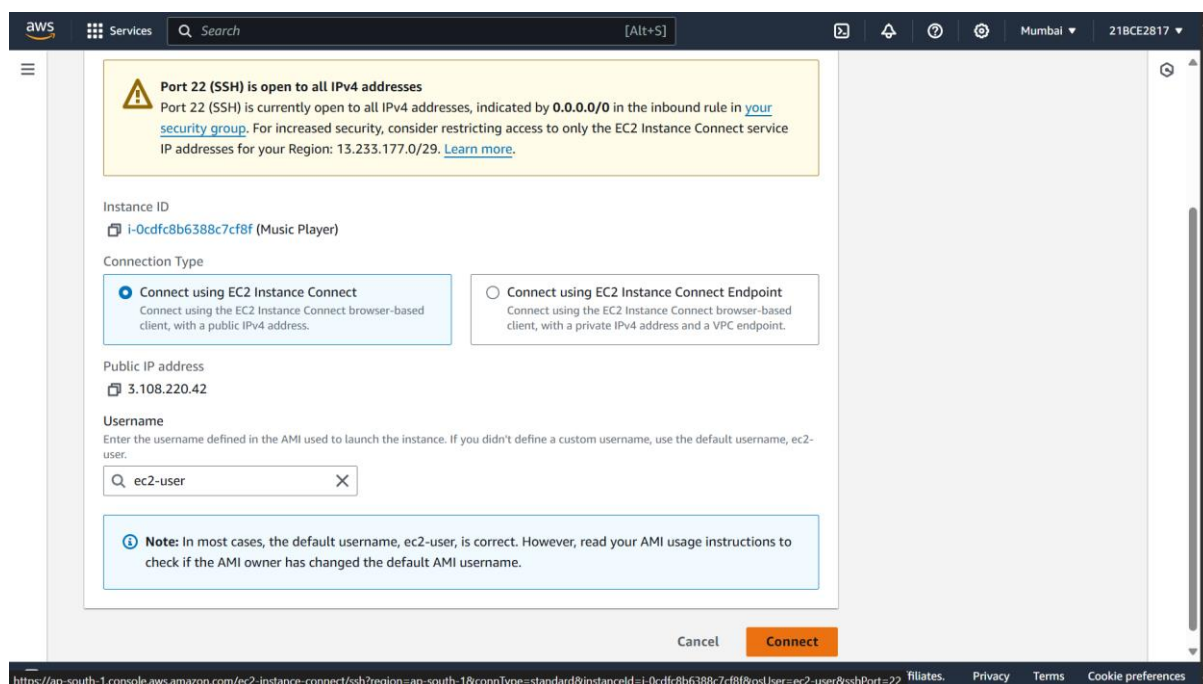
**Note – As of now, the browser will be unable to reach the server as we have not added anything to our instance.**

**Step VIII: Click on Connect.**



**Step IX: Click on Connect.**

**Now, a command window will open through which we'll add files from the GitHub.**





## Step X: Enter Commands to add file to the instance.

### Steps to add files:

Step 1: Enter Command 'sudo su -'.

Step 2: Enter Command 'yum update -y'.

```

aws Services Search [Alt+S] Mumbai 21BCE2817
Amazon Linux 2023
https://aws.amazon.com/linux/amazon-linux-2023

[ec2-user@ip-172-31-4-163 ~]$ sudo su -
sudo: su: command not found
[ec2-user@ip-172-31-4-163 ~]$ sudo su -
[root@ip-172-31-4-163 ~]# yum update -y
Last metadata expiration check: 0:04:22 ago on Wed Aug 21 16:37:00 2024.
Dependencies resolved.
Nothing to do.
Complete!
[root@ip-172-31-4-163 ~]#

```

i-0cdfc8b6388c7cf8f (Music Player)  
PublicIPs: 3.108.220.42 PrivateIPs: 172.31.4.163

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Step 3: Enter Command 'yum install -y'.

Step 4: Enter Command 'yum install -y httpd'.

```

aws Services Search [Alt+S] Mumbai 21BCE2817
Complete!
[root@ip-172-31-4-163 ~]# yum install -y
usage: yum install [-c [config file]] [-q] [-v] [--version] [--installroot [path]] [--nodocs] [--noplugins]
                  [--enableplugin [plugin]] [--disableplugin [plugin]] [--releasever RELEASEVER] [--setopt SETOPTS]
                  [--skip-broken] [-h] [--allowdowngrading] [-b | --nobest] [-C] [-R [minutes]] [-d [debug level]] [--debugsolver]
                  [--showduplicates] [-e ERRORLEVEL] [--obsoletes] [--rpmverbosity [debug level name]] [-y] [--assumeno]
                  [--enablerepo [repo]] [--disablerepo [repo]] [--repo [repo]] [--enable | --disable] [-x [package]]
                  [--disableexcludes [repo]] [--repofrompath [repo,path]] [--noautoremove] [--nogpgcheck] [--color COLOR]
                  [--refresh] [-4] [-6] [--destdir DESTDIR] [--downloadonly] [--comment COMMENT] [--bugfix] [--enhancement]
                  [--newpackage] [--security] [--advisory ADVISORY] [--bz BUGZILLA] [--cve CVES]
                  [--sec-severity [Critical,Important,Moderate,Medium,Low]] [--forcearch ARCH]
                  PACKAGE [PACKAGE ...]

yum install: error: the following arguments are required: PACKAGE
[root@ip-172-31-4-163 ~]# yum install -y httpd
Last metadata expiration check: 0:06:19 ago on Wed Aug 21 16:37:00 2024.
Dependencies resolved.

```

Package	Architecture	Version	Repository	Size
Installing:				
httpd	x86_64	2.4.62-1.amzn2023	amazonlinux	48 k
Installing dependencies:				
apr	x86_64	1.7.2-2.amzn2023.0.2	amazonlinux	129 k
apr-util	x86_64	1.6.3-1.amzn2023.0.1	amazonlinux	98 k
generic-logos-httpd	noarch	18.0.0-12.amzn2023.0.3	amazonlinux	19 k
httpd-core	x86_64	2.4.62-1.amzn2023	amazonlinux	1.4 M
httpd-filesystem	noarch	2.4.62-1.amzn2023	amazonlinux	14 k
httpd-tools	x86_64	2.4.62-1.amzn2023	amazonlinux	81 k

i-0cdfc8b6388c7cf8f (Music Player)  
PublicIPs: 3.108.220.42 PrivateIPs: 172.31.4.163

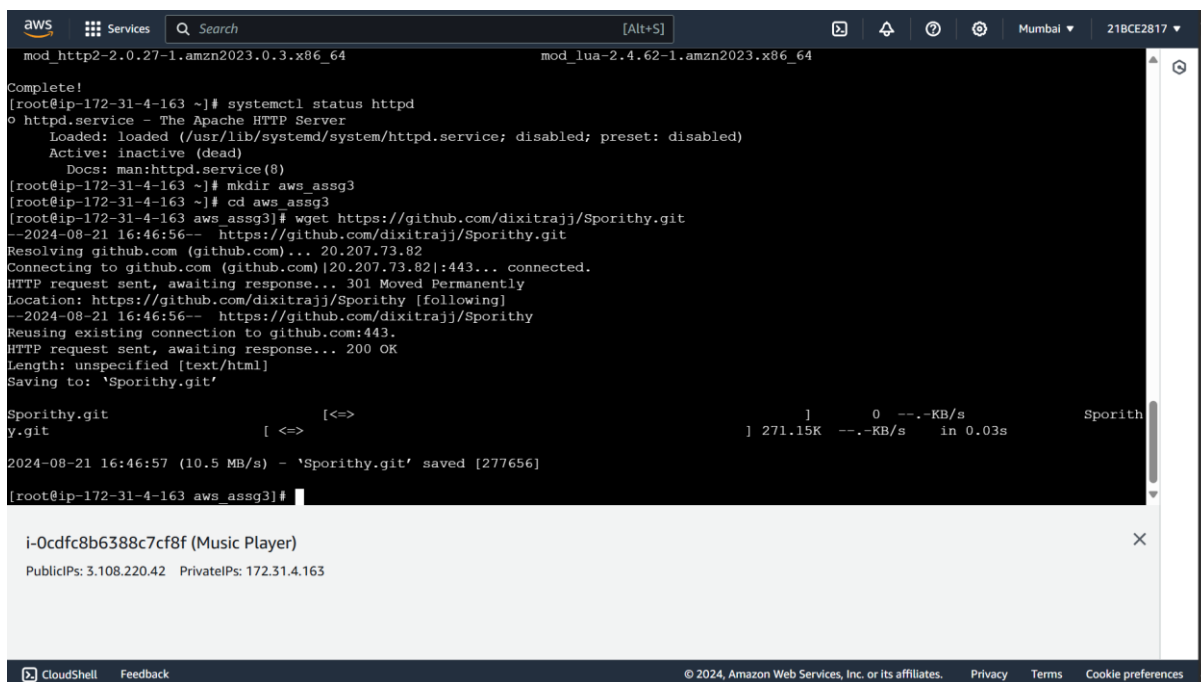
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Step 5: Enter Command 'systemctl status httpd'.

Step 6: Enter Command 'mkdir aws\_assg3'.

Step 7: Enter Command 'wget <https://github.com/dixitraj/Sporithy.git>'.

Note – The link is copied from GitHub under Code->HTTPS and link which is copied is used for cloning through web URL.



```
aws
Services Search [Alt+S] Mumbai 21BCE2817
mod_http2-2.0.27-1.amzn2023.0.3.x86_64 mod_lua-2.4.62-1.amzn2023.x86_64

Complete!
[root@ip-172-31-4-163 ~]# systemctl status httpd
o httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; disabled; preset: disabled)
   Active: inactive (dead)
     Docs: man:httpd.service(8)
[root@ip-172-31-4-163 ~]# mkdir aws_assg3
[root@ip-172-31-4-163 ~]# cd aws_assg3
[root@ip-172-31-4-163 aws_assg3]# wget https://github.com/dixitraj/Sporithy.git
--2024-08-21 16:46:56-- https://github.com/dixitraj/Sporithy.git
Resolving github.com (github.com)... 20.207.73.82
Connecting to github.com (github.com)[20.207.73.82]:443... connected.
HTTP request sent, awaiting response... 301 Moved Permanently
Location: https://github.com/dixitraj/Sporithy [following]
--2024-08-21 16:46:56-- https://github.com/dixitraj/Sporithy
Reusing existing connection to github.com:443.
HTTP request sent, awaiting response... 200 OK
Length: unspecified [text/html]
Saving to: 'Sporithy.git'

Sporithy.git          [ <=> ] 0 --.-KB/s  Sporith
y.git                 [ <=> ] 271.15K --.-KB/s  in 0.03s

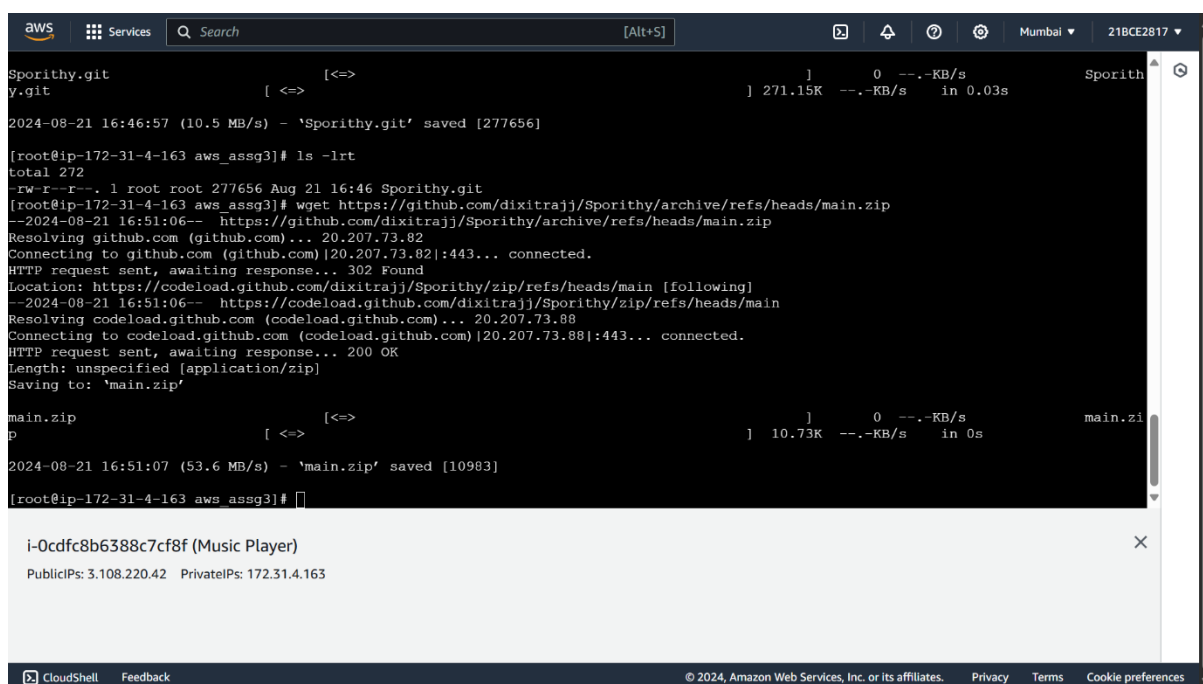
2024-08-21 16:46:57 (10.5 MB/s) - 'Sporithy.git' saved [277656]

[root@ip-172-31-4-163 aws_assg3]#
```

Step 8: Enter Command 'ls -lrt'.

Step 9: Enter Command 'wget <https://github.com/dixitraj/Sporithy/archive/refs/heads/main.zip>'.

Note - The link is the link of the download Zip from GitHub of the repository which you want to deploy through EC2 Instance.



```
aws
Services Search [Alt+S] Mumbai 21BCE2817

Sporithy.git          [ <=> ] 0 --.-KB/s  Sporith
y.git                 [ <=> ] 271.15K --.-KB/s  in 0.03s

2024-08-21 16:46:57 (10.5 MB/s) - 'Sporithy.git' saved [277656]

[root@ip-172-31-4-163 aws_assg3]# ls -lrt
total 272
-rw-r--r-- 1 root root 277656 Aug 21 16:46 Sporithy.git
[root@ip-172-31-4-163 aws_assg3]# wget https://github.com/dixitraj/Sporithy/archive/refs/heads/main.zip
--2024-08-21 16:51:06-- https://github.com/dixitraj/Sporithy/archive/refs/heads/main.zip
Resolving github.com (github.com)... 20.207.73.82
Connecting to github.com (github.com)[20.207.73.82]:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://codeload.github.com/dixitraj/Sporithy/zip/refs/heads/main [following]
--2024-08-21 16:51:06-- https://codeload.github.com/dixitraj/Sporithy/zip/refs/heads/main
Resolving codeload.github.com (codeload.github.com)... 20.207.73.88
Connecting to codeload.github.com (codeload.github.com)[20.207.73.88]:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: unspecified [application/zip]
Saving to: 'main.zip'

main.zip          [ <=> ] 0 --.-KB/s  main.zi
p                 [ <=> ] 10.73K --.-KB/s  in 0s

2024-08-21 16:51:07 (53.6 MB/s) - 'main.zip' saved [10983]

[root@ip-172-31-4-163 aws_assg3]#
```

### Step 10: Enter Command 'ls -lrt'.

### Step 11: Enter Command 'unzip main.zip'.

```
aws Services Mumbai 21BCE2817 [Alt+S]
Location: https://codeload.github.com/dixitraj/Sporithy/zip/refs/heads/main [following]
--2024-08-21 16:51:06-- https://codeload.github.com/dixitraj/Sporithy/zip/refs/heads/main
Resolving codeload.github.com (codeload.github.com)... 20.207.73.88
Connecting to codeload.github.com (codeload.github.com)[20.207.73.88]:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: unspecified [application/zip]
Saving to: 'main.zip'

main.zip           [<=>]           0 --.-KB/s    main.zip
p                 [<=>]           10.73K --.-KB/s    in 0s

2024-08-21 16:51:07 (53.6 MB/s) - 'main.zip' saved [10983]

[root@ip-172-31-4-163 aws_assg3]# ls -lrt
total 284
-rw-r--r--. 1 root root 277656 Aug 21 16:46 Sporithy.git
-rw-r--r--. 1 root root 10983 Aug 21 16:51 main.zip
[root@ip-172-31-4-163 aws_assg3]# unzip main.zip
Archive:  main.zip
71a2520159cdfbblala3b4e21d6186ef4a5b53d
  creating: Sporithy-main/
  extracting: Sporithy-main/README.md
  inflating: Sporithy-main/blue.jpeg
  inflating: Sporithy-main/green.jpg
  inflating: Sporithy-main/index.html
  inflating: Sporithy-main/red.jpeg
  inflating: Sporithy-main/style.css
[root@ip-172-31-4-163 aws_assg3]#
```

### Step 12: Enter Command 'ls -lrt'.

### Step 13: Enter Command 'cd Sporithy-main'.

### Step 14: Enter Command 'ls -lrt'.

Step 15: Enter Command 'mv \*/var/www/html/'.

Step 16: Enter Command 'cd /var/www/html'.

**Step 17: Enter Command 'ls -lrt'.**

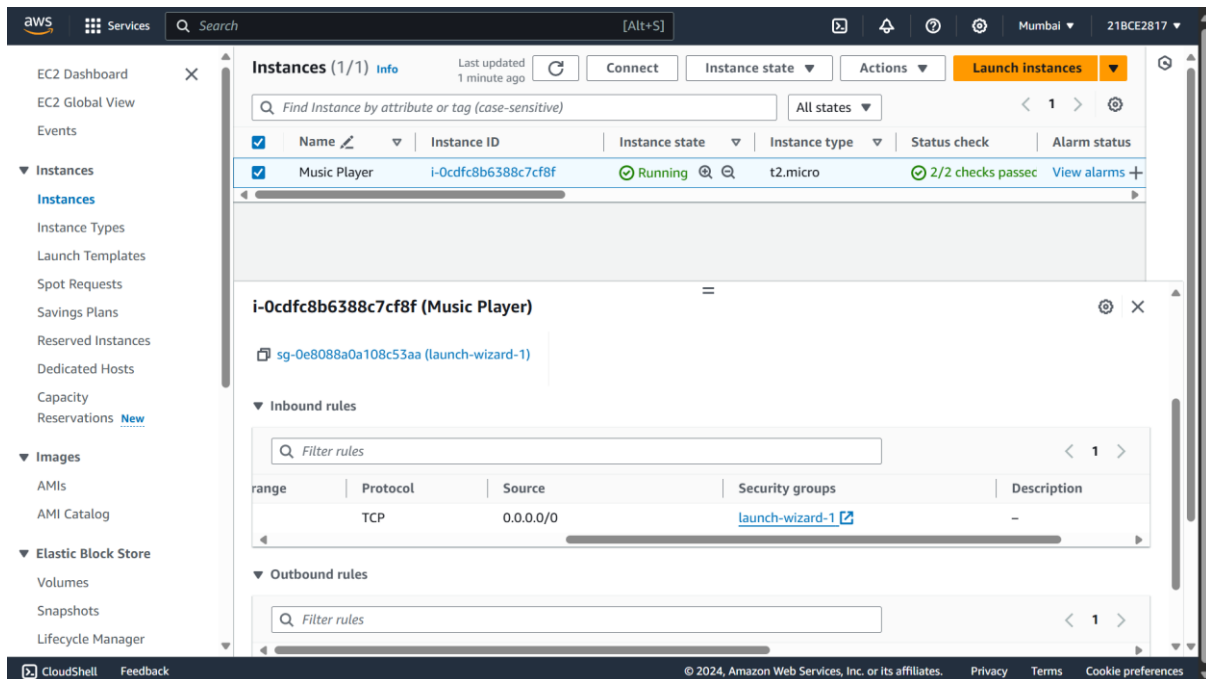
```
aws Services Search [Alt+S] Mumbai Mumbai 21BCE2817
inflating: Sporithy-main/index.html
inflating: Sporithy-main/red.jpeg
inflating: Sporithy-main/style.css
[root@ip-172-31-4-163 aws_assg3]# ls -lrt
total 284
drwxr-xr-x. 2 root root    108 Aug 21 16:24 Sporithy-main
-rw-r--r--. 1 root root 277656 Aug 21 16:46 Sporithy.git
-rw-r--r--. 1 root root 10983 Aug 21 16:51 main.zip
[root@ip-172-31-4-163 aws_assg3]# cd Sporithy-main
[root@ip-172-31-4-163 Sporithy-main]# ls -lrt
total 164
-rw-r--r--. 1 root root    3470 Aug 21 16:24 style.css
-rw-r--r--. 1 root root     796 Aug 21 16:24 red.jpeg
-rw-r--r--. 1 root root   9286 Aug 21 16:24 index.html
-rw-r--r--. 1 root root 137431 Aug 21 16:24 green.jpg
-rw-r--r--. 1 root root   1737 Aug 21 16:24 blue.jpeg
-rw-r--r--. 1 root root      9 Aug 21 16:24 README.md
[root@ip-172-31-4-163 Sporithy-main]# mv * /var/www/html/
[root@ip-172-31-4-163 Sporithy-main]# cd /var/www/html
[root@ip-172-31-4-163 html]# ls -lrt
total 164
-rw-r--r--. 1 root root    3470 Aug 21 16:24 style.css
-rw-r--r--. 1 root root     796 Aug 21 16:24 red.jpeg
-rw-r--r--. 1 root root   9286 Aug 21 16:24 index.html
-rw-r--r--. 1 root root 137431 Aug 21 16:24 green.jpg
-rw-r--r--. 1 root root   1737 Aug 21 16:24 blue.jpeg
-rw-r--r--. 1 root root      9 Aug 21 16:24 README.md
[root@ip-172-31-4-163 html]#
```

i-Ocdfc8b6388c7cf8f (Music Player)

PublicIPs: 3.108.220.42 PrivateIPs: 172.31.4.163

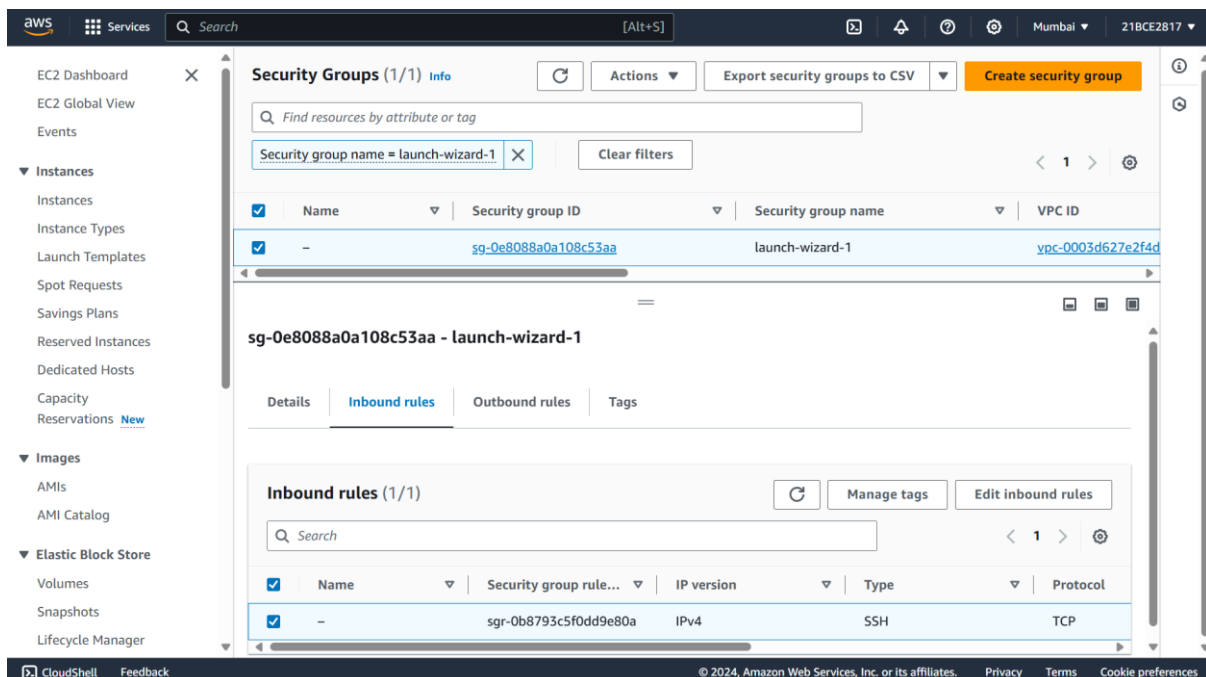
**Step XI: Click on EC2 Instance then Click on Security.**

**Step XII: Scroll Inbound rules to the right and click on launch-wizard-1.**



**Step XIII: From Security group select the security group id and then select the inbound rule which we want to make changes according to our website.**

**Step XIV: Click on Edit Inbound rules.**

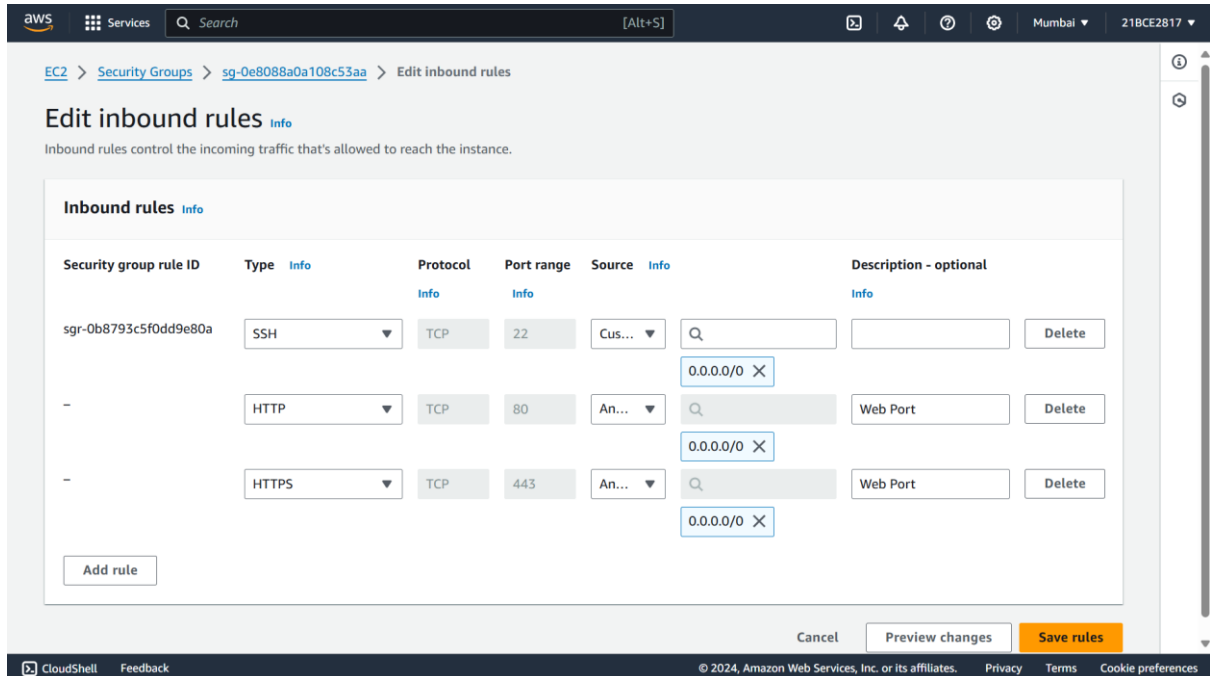


**Step XV: Click on Add rule to add inbound rule.**

**Step XVI: Add rules as type HTTP and HTTPS and select source as any IpV4.**

**Step XVII: Click on Save rules to save the rule and continue.**

**Now, go back to the command window through which we have added the files.**

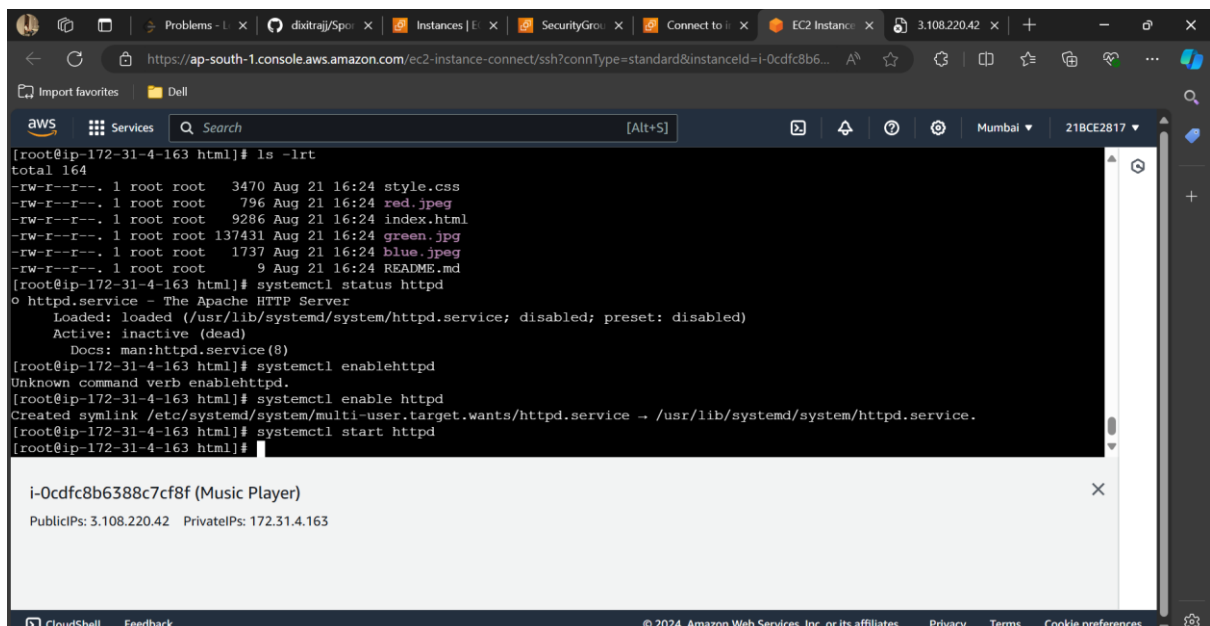


**Step XVIII: Adding HTTP Rules through command window.**

Step 1: Enter Command 'systemctl status httpd'.

Step 2: Enter Command 'systemctl enable httpd'.

Step 3: Enter Command 'systemctl start httpd'.



**Step XIX: Refresh the Ip which you have pasted on the browser.**

**Now, we are able to see our content. Hence, Our Instance is now live and running.**

