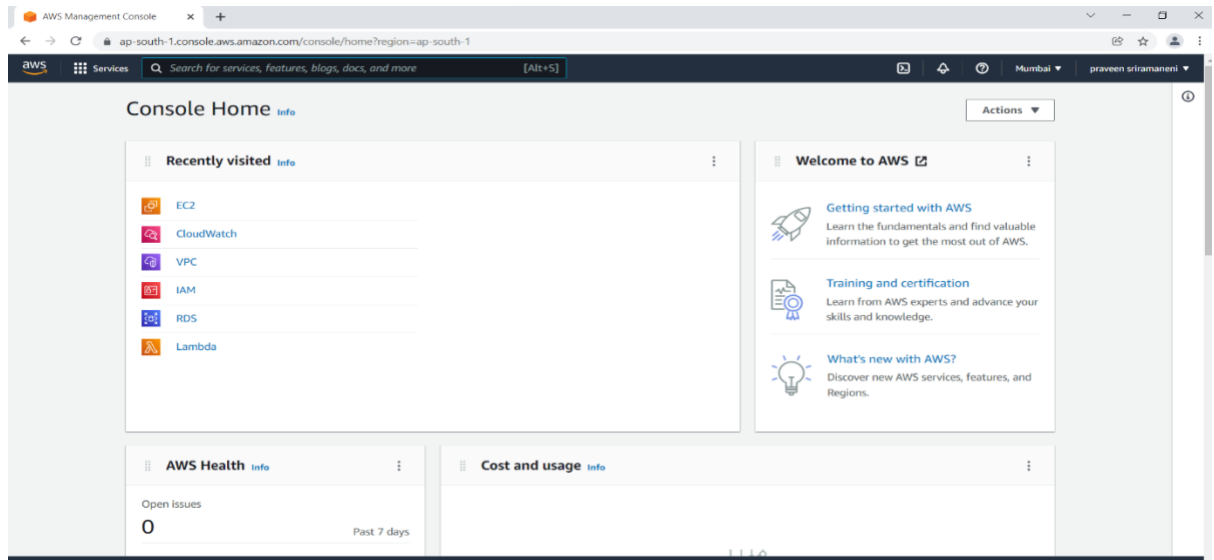


GIT PROJECT

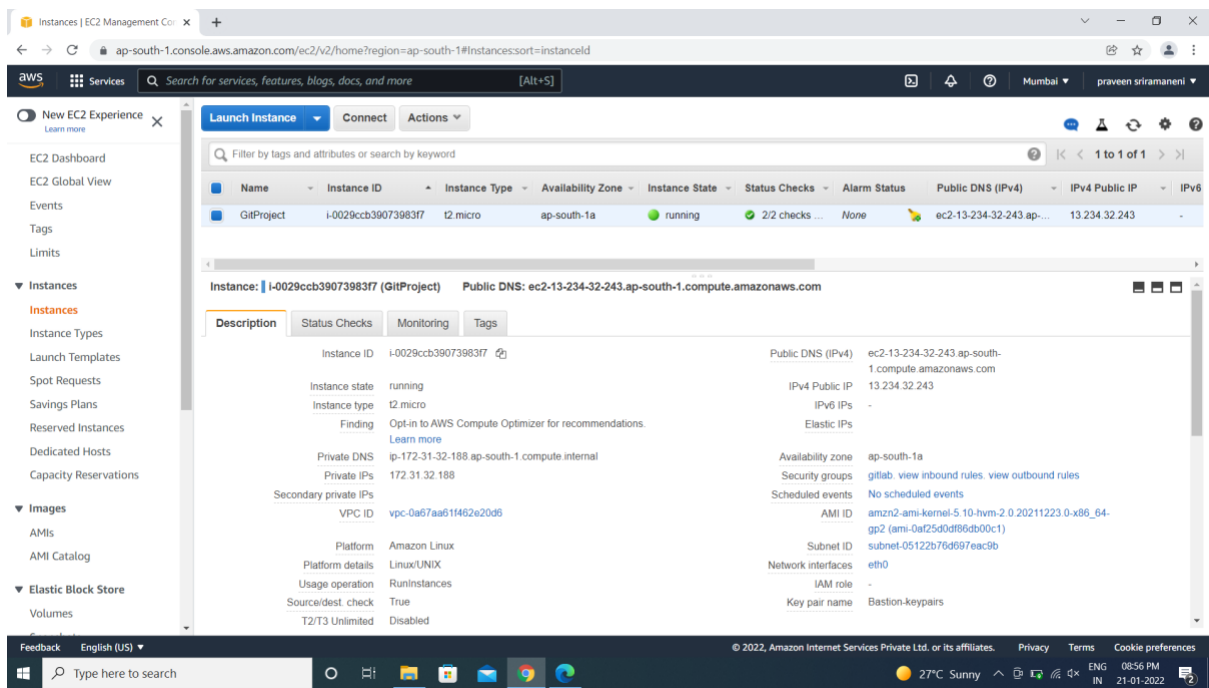
AWS – GIT – Version control system (VCS)

LAB 1: (Creating EC2 instance):

➤ Login to AWS console.



➤ Create a server with Amazon Linux 2 AMI



➤ Connect the server with Putty/GitBash.

```
ec2-user@ip-172-31-32-188 ~
mnovo@DESKTOP-SM3RP3B MINGW64 ~
$ cd
mnovo@DESKTOP-SM3RP3B MINGW64 ~
$ cd Downloads/ ssh -i "Bastion-keypairs.pem" ec2-user@ec2-13-234-32-243.ap-south-1.compute.amazonaws.com
bash: cd: too many arguments
mnovo@DESKTOP-SM3RP3B MINGW64 ~
$ Downloads/ ssh -i "Bastion-keypairs.pem" ec2-user@ec2-13-234-32-243.ap-south-1.compute.amazonaws.com
bash: Downloads/: is a directory
mnovo@DESKTOP-SM3RP3B MINGW64 ~
$ ssh -i "Downloads/Bastion-keypairs.pem" ec2-user@ec2-13-234-32-243.ap-south-1.compute.amazonaws.com
The authenticity of host 'ec2-13-234-32-243.ap-south-1.compute.amazonaws.com (13.234.32.243)' can't be established.
ED25519 key fingerprint is SHA256:cVJCy5POaU8waf385K08IX883lg8ymDAnJZeb3BNe3g.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])?
Host key verification failed.
mnovo@DESKTOP-SM3RP3B MINGW64 ~
$ Downloads
bash: Downloads: command not found
mnovo@DESKTOP-SM3RP3B MINGW64 ~
$ cd Downloads
mnovo@DESKTOP-SM3RP3B MINGW64 ~/Downloads
$ ssh -i "Bastion-keypairs.pem" ec2-user@ec2-13-234-32-243.ap-south-1.compute.amazonaws.com
The authenticity of host 'ec2-13-234-32-243.ap-south-1.compute.amazonaws.com (13.234.32.243)' can't be established.
ED25519 key fingerprint is SHA256:cVJCy5POaU8waf385K08IX883lg8ymDAnJZeb3BNe3g.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-13-234-32-243.ap-south-1.compute.amazonaws.com' (ED25519) to the list of known hosts.
 _ _ _ _ _
| | | | |
|_|_|_|_|_| Amazon Linux 2 AMI

https://aws.amazon.com/amazon-linux-2/
11 package(s) needed for security, out of 15 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-32-188 ~]$
```

LAB 2: (Create repo in local machine):

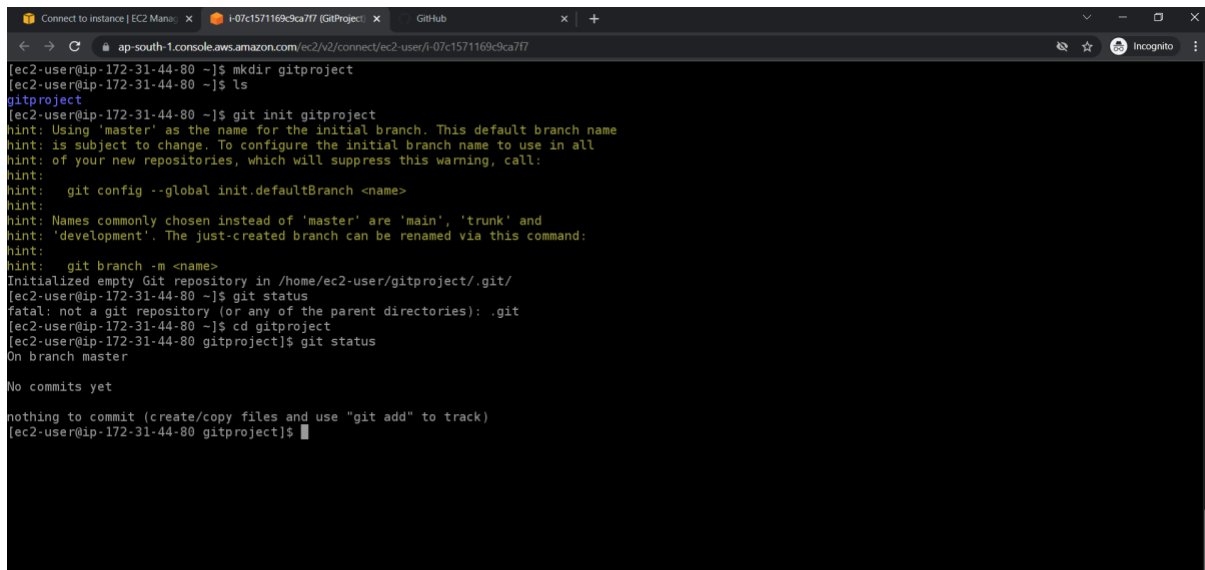
➤ Create a folder on my local machine

```
Connect to instance | EC2 Mana: x i-07c1571169c9ca7f7 (GitProject) x GitHub x | +
ap-south-1.console.aws.amazon.com/ec2/v2/connect/ec2-user/i-07c1571169c9ca7f7
ec2-user@ip-172-31-44-80 ~]$ mkdir gitproject
ec2-user@ip-172-31-44-80 ~]$ ls
gitproject
ec2-user@ip-172-31-44-80 ~]$
```

i-07c1571169c9ca7f7 (GitProject)

Public IPs: 3.109.186.4 Private IPs: 172.31.44.80

- initialize this folder using git init command
 - a. --> git init <folder name>
 - b. Go inside this folder and run git status command to check the status.



```
[ec2-user@ip-172-31-44-80 ~]$ mkdir gitproject
[ec2-user@ip-172-31-44-80 ~]$ ls
gitproject
[ec2-user@ip-172-31-44-80 ~]$ git init gitproject
hint: Using 'master' as the name for the initial branch. This default branch name
hint: is subject to change. To configure the initial branch name to use in all
hint: of your new repositories, which will suppress this warning, call:
hint:
hint:   git config --global init.defaultBranch <name>
hint:
hint: Names commonly chosen instead of 'master' are 'main', 'trunk' and
hint: 'development'. The just-created branch can be renamed via this command:
hint:
hint:   git branch -m <name>
Initialized empty Git repository in /home/ec2-user/gitproject/.git/
[ec2-user@ip-172-31-44-80 ~]$ git status
fatal: not a git repository (or any of the parent directories): .git
[ec2-user@ip-172-31-44-80 ~]$ cd gitproject
[ec2-user@ip-172-31-44-80 gitproject]$ git status
On branch master

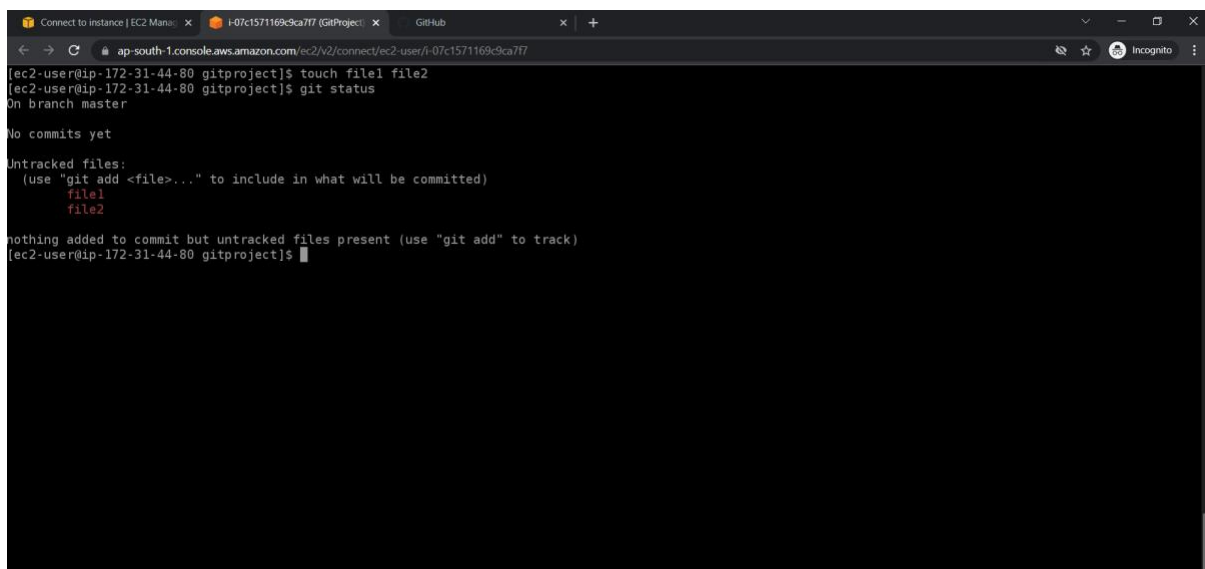
No commits yet

nothing to commit (create/copy files and use "git add" to track)
[ec2-user@ip-172-31-44-80 gitproject]$
```

i-07c1571169c9ca7f7 (GitProject)

Public IPs: 3.109.186.4 Private IPs: 172.31.44.80

- created some empty files using touch command
 - a. --> touch test
 - b. Again, run git status to see the changes, you can notice that the file is available but not tracked by Git



```
[ec2-user@ip-172-31-44-80 gitproject]$ touch file1 file2
[ec2-user@ip-172-31-44-80 gitproject]$ git status
On branch master

No commits yet

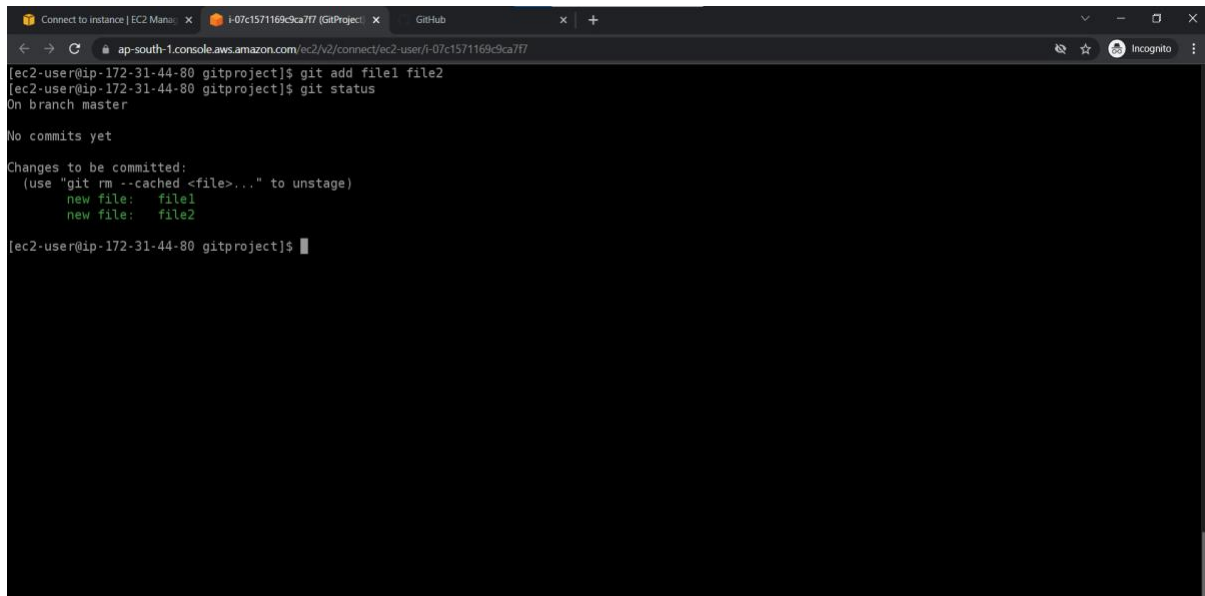
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        file1
        file2

nothing added to commit but untracked files present (use "git add" to track)
[ec2-user@ip-172-31-44-80 gitproject]$
```

i-07c1571169c9ca7f7 (GitProject)

Public IPs: 3.109.186.4 Private IPs: 172.31.44.80

- Run git add to stage this change (git will start tracking this file), you may check it using git status once again.

A screenshot of a terminal window with a dark background. The terminal shows the following commands and output:

```
[ec2-user@ip-172-31-44-80 gitproject]$ git add file1 file2
[ec2-user@ip-172-31-44-80 gitproject]$ git status
On branch master

No commits yet

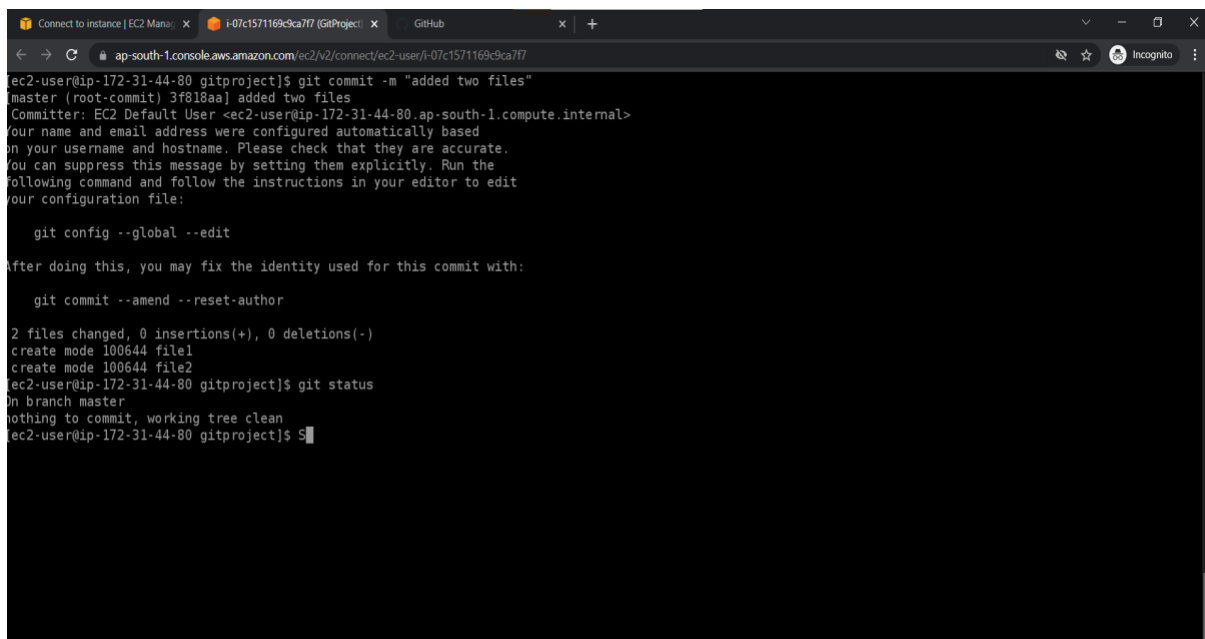
Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   file1
        new file:   file2

[ec2-user@ip-172-31-44-80 gitproject]$
```

i-07c1571169c9ca7f7 (GitProject)

Public IPs: 3.109.186.4 Private IPs: 172.31.44.80

- Now commit our changes by running git commit -m "added test files"
- Run git status once again and it will show you that the working tree is clean.

A screenshot of a terminal window with a dark background. The terminal shows the following commands and output:

```
[ec2-user@ip-172-31-44-80 gitproject]$ git commit -m "added two files"
master (root-commit) 3f818aa] added two files
Committer: EC2 Default User <ec2-user@ip-172-31-44-80.ap-south-1.compute.internal>
Your name and email address were configured automatically based
on your username and hostname. Please check that they are accurate.
You can suppress this message by setting them explicitly. Run the
following command and follow the instructions in your editor to edit
your configuration file:

    git config --global --edit

After doing this, you may fix the identity used for this commit with:

    git commit --amend --reset-author

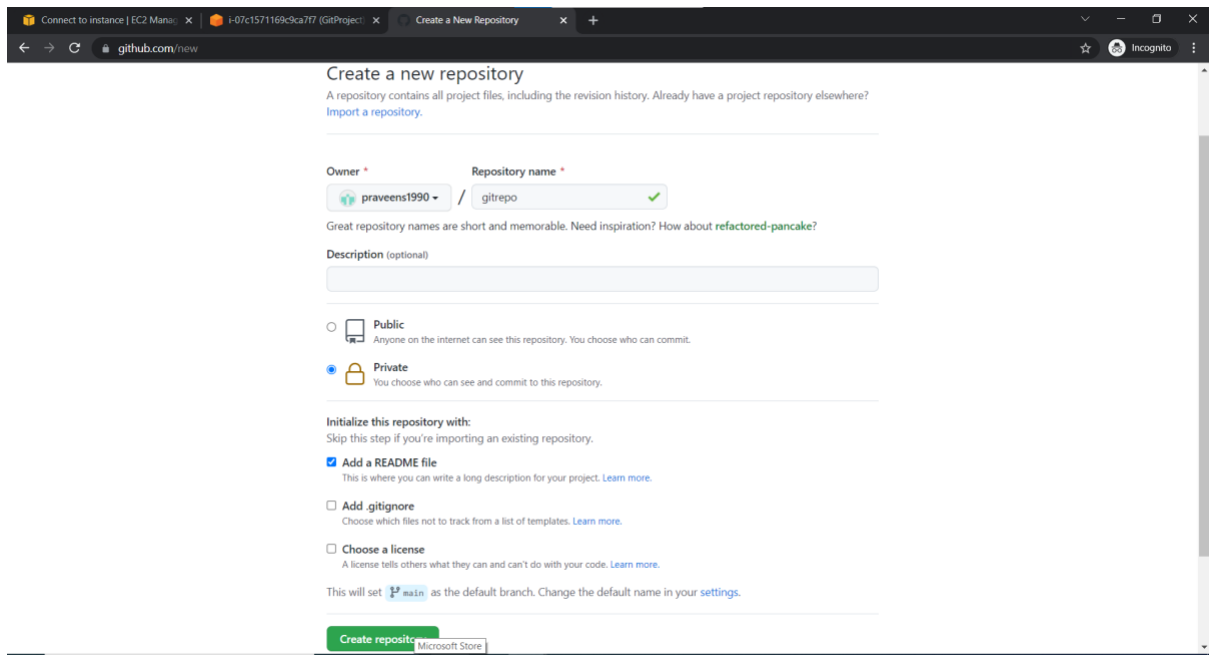
2 files changed, 0 insertions(+), 0 deletions(-)
create mode 100644 file1
create mode 100644 file2
[ec2-user@ip-172-31-44-80 gitproject]$ git status
On branch master
nothing to commit, working tree clean
[ec2-user@ip-172-31-44-80 gitproject]$
```

i-07c1571169c9ca7f7 (GitProject)

Public IPs: 3.109.186.4 Private IPs: 172.31.44.80

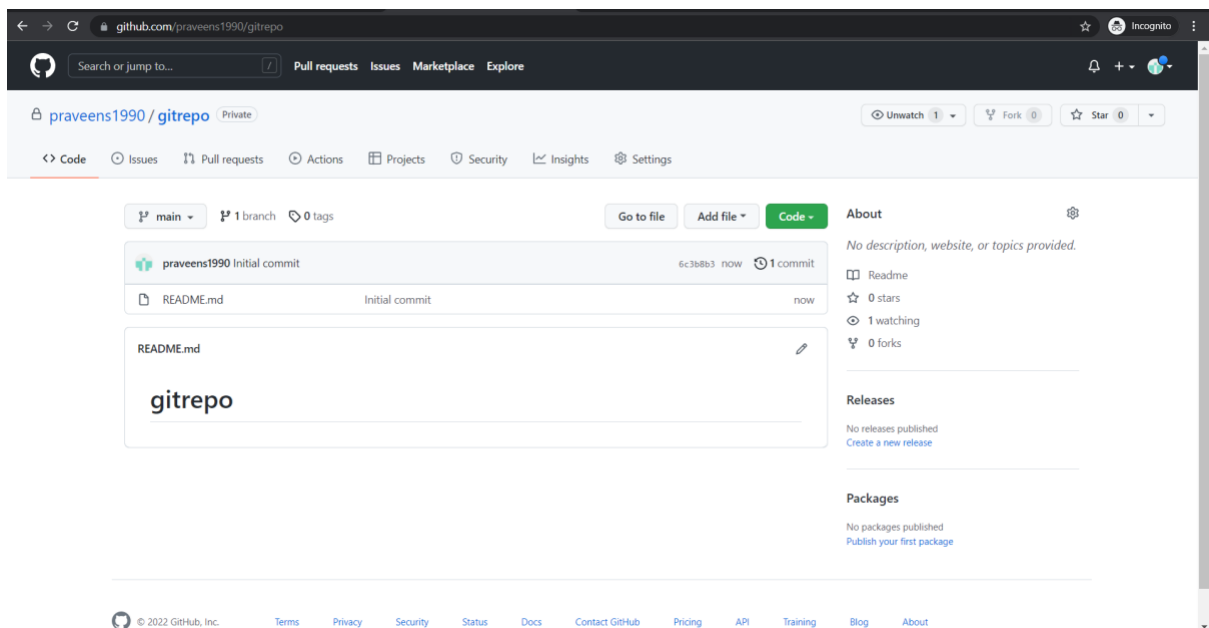
LAB 3: (Creating repo in remote location – GitHub):

- Now create a new repository by clicking on new button
 - a. Provide repo name
 - b. Select whether it is a private or public repo (recommended is private)
 - c. Initialize the repo by adding a README.md file.



The screenshot shows the GitHub 'Create a new repository' page. The browser address bar shows 'github.com/new'. The page title is 'Create a new repository'. Below the title, there is a description: 'A repository contains all project files, including the revision history. Already have a project repository elsewhere? Import a repository.' The 'Owner' is set to 'praveens1990' and the 'Repository name' is 'gitrepo'. The 'Description (optional)' field is empty. The 'Public' option is selected, but the 'Private' option is also visible. The 'Initialize this repository with:' section has three checkboxes: 'Add a README file' (checked), 'Add .gitignore', and 'Choose a license'. The 'Create repository' button is at the bottom.

- Click on create repo and done.



LAB 4: (Working with Remote repo):

- Pick the clone URL of the repository from the GitHub repo.
- Go to your local machine and clone this repo using git clone command
 - A. `git clone<repo URL that you will get by clicking on code button in GitHub>`
 - B. Here you will get one error for password-based authentication depreciation.
 - C. Now, we need to create the personal access token to work with this repo.
 - D. At the top right corner click on the user icon
 - E. Go to settings c. Developer settings
 - F. Personal access token
 - G. Click on generate token
 - H. Provide a note
 - I. Expiration date and scope (select the very first checkbox for scope)

Settings / Developer settings

New personal access token

Personal access tokens function like ordinary OAuth access tokens. They can be used instead of a password for Git over HTTPS, or can be used to [authenticate to the API over Basic Authentication](#).

Note

jantoken

What's this token for?

Expiration *

30 days The token will expire on Sun, Feb 20 2022

Select scopes

Scopes define the access for personal tokens. [Read more about OAuth scopes](#).

<input checked="" type="checkbox"/> repo	Full control of private repositories
<input type="checkbox"/> repo:status	Access commit status
<input type="checkbox"/> repo:deployment	Access deployment status
<input type="checkbox"/> public_repo	Access public repositories
<input type="checkbox"/> repo:invite	Access repository invitations
<input type="checkbox"/> security_events	Read and write security events
<input type="checkbox"/> workflow	Update GitHub Action workflows
<input type="checkbox"/> write:packages	Upload packages to GitHub Package Registry
<input type="checkbox"/> read:packages	Download packages from GitHub Package Registry
<input type="checkbox"/> delete:packages	Delete packages from GitHub Package Registry

- J. Click on generate token
- K. Copy this token and keep it safe

Connect to instance | EC2 Manu... | f-07c1571169c9ca717 (GitProjec... | Personal Access Tokens

github.com/settings/tokens

Search or jump to... Pull requests Issues Marketplace Explore

Some of the scopes you've selected are included in other scopes. Only the minimum set of necessary scopes has been saved.

Settings / Developer settings

Personal access tokens

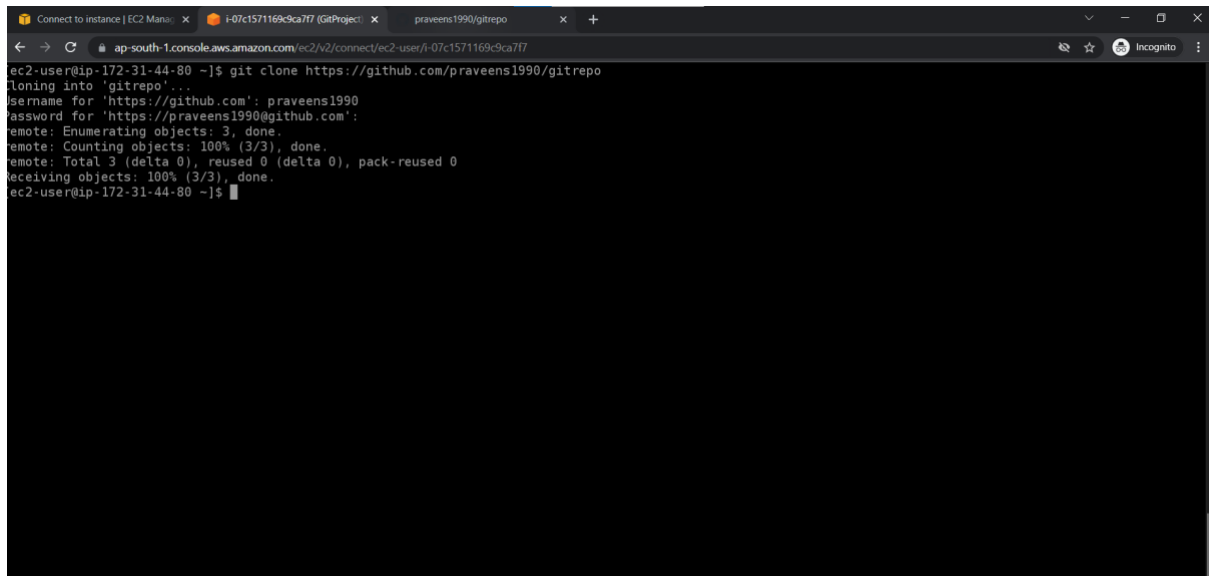
Generate new token Revoke all

Tokens you have generated that can be used to access the [GitHub API](#).

Make sure to copy your personal access token now. You won't be able to see it again!

✓ ghp_U678CsD3LX6obnck90178KY3htQqZY1GPMAG Delete

- Clone the repo again in your local machine, and this time provide the token in place of password while cloning.

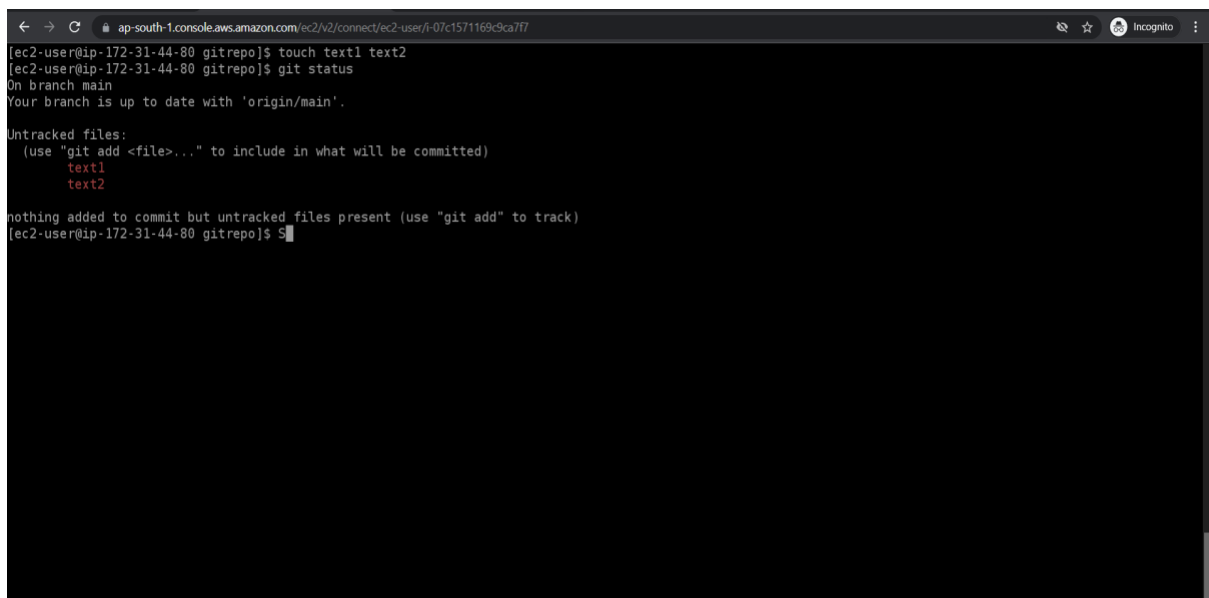


```
ec2-user@ip-172-31-44-80 ~]$ git clone https://github.com/praveens1990/gitrepo
Cloning into 'gitrepo'...
Username for 'https://github.com': praveens1990
Password for 'https://praveens1990@github.com':
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (3/3), done.
ec2-user@ip-172-31-44-80 ~]$
```

i-07c1571169c9ca7f7 (GitProject)

Public IPs: 3.109.186.4 Private IPs: 172.31.44.80

- Once cloned, go to the repo folder and add some sample files. We can use touch command to create empty files.
- a. touch text1 text2



```
[ec2-user@ip-172-31-44-80 gitrepo]$ touch text1 text2
[ec2-user@ip-172-31-44-80 gitrepo]$ git status
On branch main
Your branch is up to date with 'origin/main'.

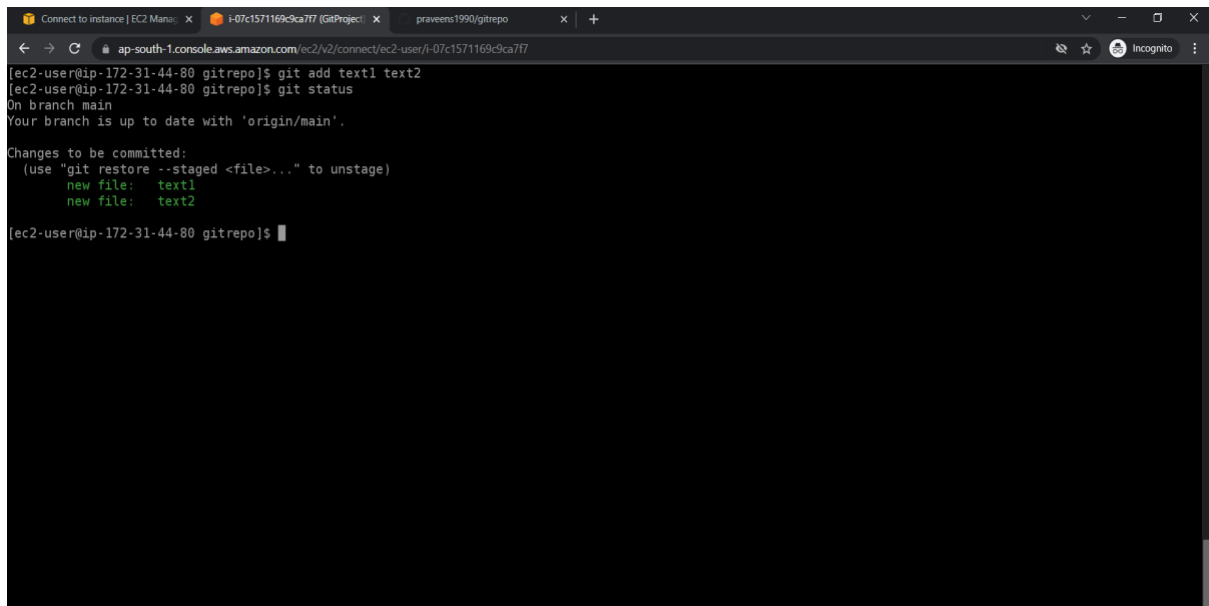
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        text1
        text2

nothing added to commit but untracked files present (use "git add" to track)
[ec2-user@ip-172-31-44-80 gitrepo]$
```

i-07c1571169c9ca7f7 (GitProject)

Public IPs: 3.109.186.4 Private IPs: 172.31.44.80

➤ Stage these changes by running `git add text1 text2`



The screenshot shows a terminal window with the following content:

```
ap-south-1.console.aws.amazon.com/ec2/v2/connect/ec2-user/i-07c1571169c9ca7f7
[ec2-user@ip-172-31-44-80 gitrepo]$ git add text1 text2
[ec2-user@ip-172-31-44-80 gitrepo]$ git status
On branch main
Your branch is up to date with 'origin/main'.

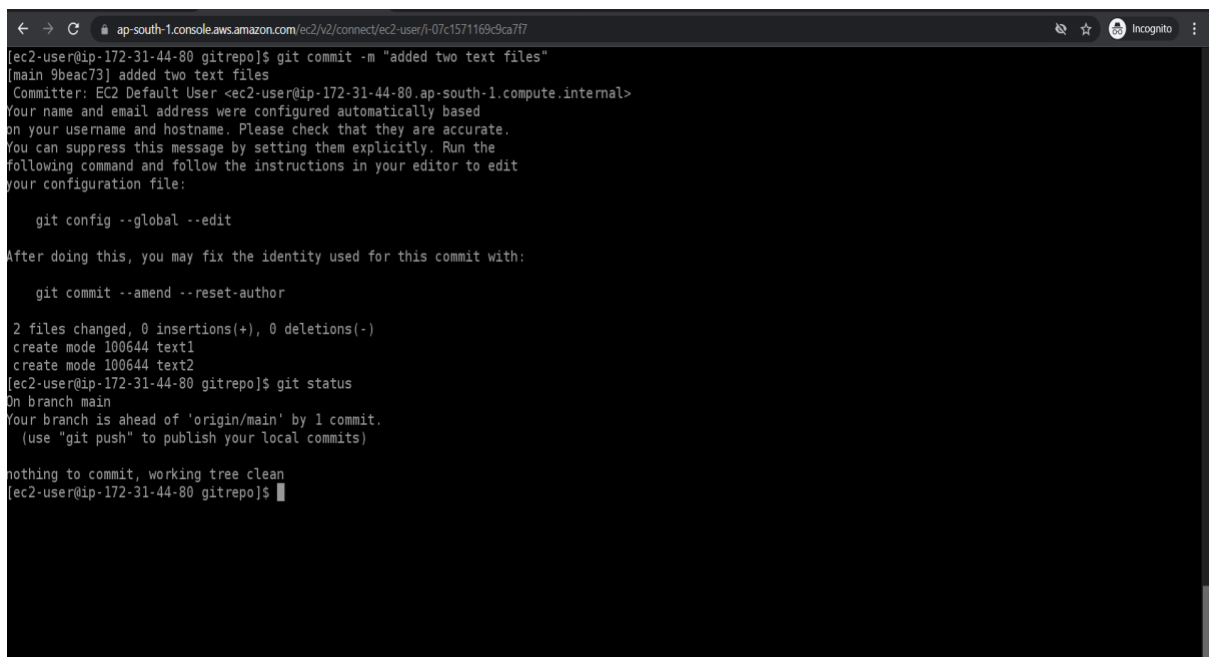
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   text1
        new file:   text2

[ec2-user@ip-172-31-44-80 gitrepo]$
```

i-07c1571169c9ca7f7 (GitProject)

Public IPs: 3.109.186.4 Private IPs: 172.31.44.80

➤ Commit these changes by running `git commit -m ""`



The screenshot shows a terminal window with the following content:

```
ap-south-1.console.aws.amazon.com/ec2/v2/connect/ec2-user/i-07c1571169c9ca7f7
[ec2-user@ip-172-31-44-80 gitrepo]$ git commit -m "added two text files"
[main 9beac73] added two text files
Committer: EC2 Default User <ec2-user@ip-172-31-44-80.ap-south-1.compute.internal>
Your name and email address were configured automatically based
on your username and hostname. Please check that they are accurate.
You can suppress this message by setting them explicitly. Run the
following command and follow the instructions in your editor to edit
your configuration file:

    git config --global --edit

After doing this, you may fix the identity used for this commit with:

    git commit --amend --reset-author

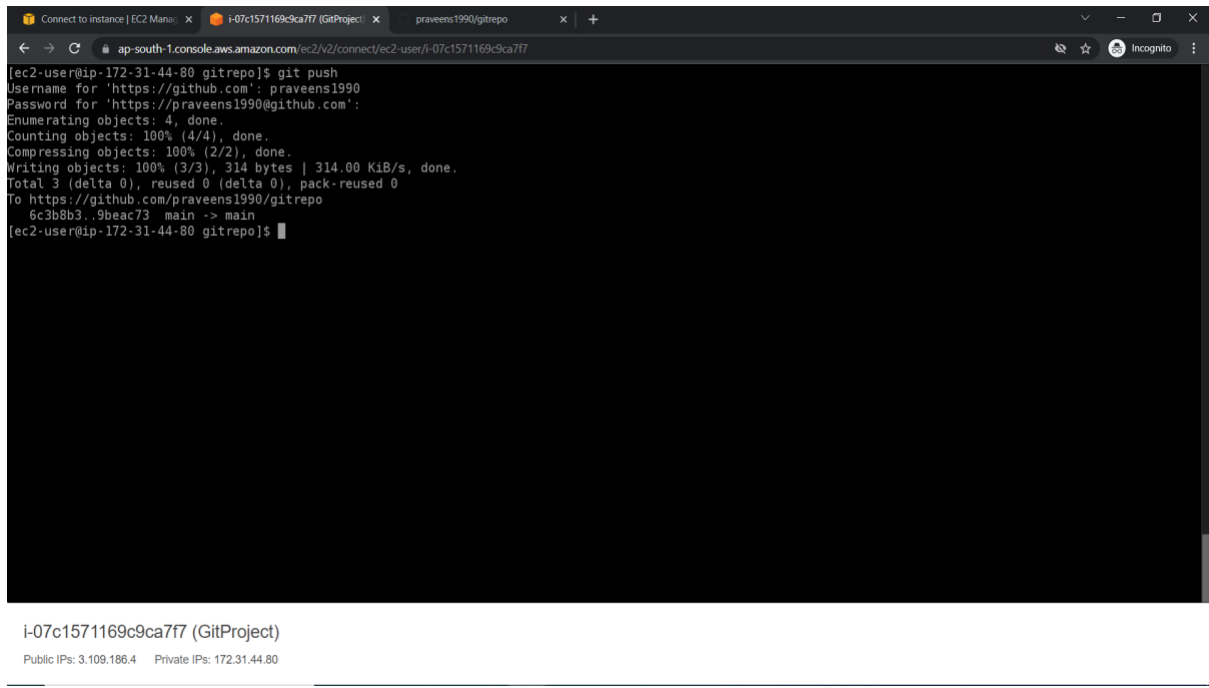
2 files changed, 0 insertions(+), 0 deletions(-)
create mode 100644 text1
create mode 100644 text2
[ec2-user@ip-172-31-44-80 gitrepo]$ git status
On branch main
Your branch is ahead of 'origin/main' by 1 commit.
  (use "git push" to publish your local commits)

nothing to commit, working tree clean
[ec2-user@ip-172-31-44-80 gitrepo]$
```

i-07c1571169c9ca7f7 (GitProject)

Public IPs: 3.109.186.4 Private IPs: 172.31.44.80

- **Git push --> it will ask you for username and password, provide the username and personal access token in place of password which we created above.**

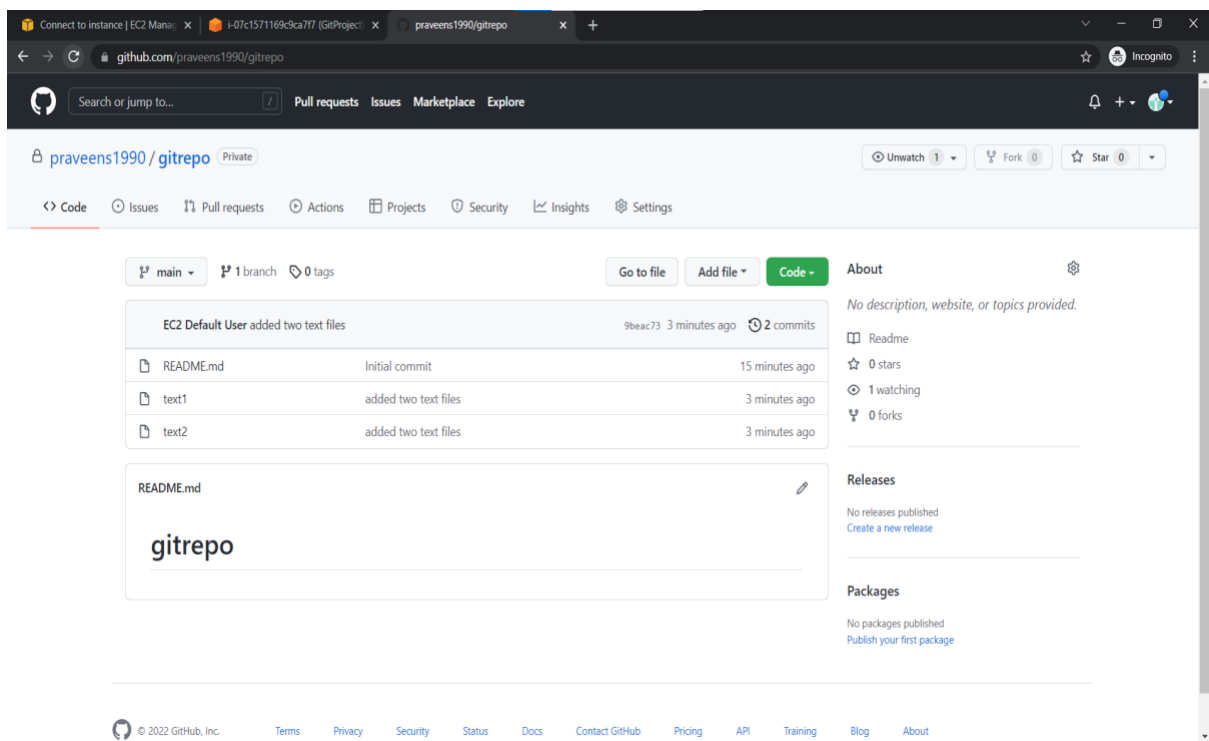


```
[ec2-user@ip-172-31-44-80 gitrepo]$ git push
Username for 'https://github.com': praveens1990
Password for 'https://praveens1990@github.com':
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 314 bytes | 314.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/praveens1990/gitrepo
6c3b8b3..9beac73 main -> main
[ec2-user@ip-172-31-44-80 gitrepo]$
```

i-07c1571169c9ca7f7 (GitProject)

Public IPs: 3.109.186.4 Private IPs: 172.31.44.80

- **Go to the remote repo and see, you will be able to find your new changes.**



praveens1990 / gitrepo (Private)

Unwatch 1 Fork 0 Star 0

Code Issues Pull requests Actions Projects Security Insights Settings

main 1 branch 0 tags

Go to file Add file Code

EC2 Default User added two text files 9beac73 3 minutes ago 2 commits

File	Commit	Time
README.md	Initial commit	15 minutes ago
text1	added two text files	3 minutes ago
text2	added two text files	3 minutes ago

README.md

gitrepo

About

No description, website, or topics provided.

Readme

0 stars

1 watching

0 forks

Releases

No releases published

Create a new release

Packages

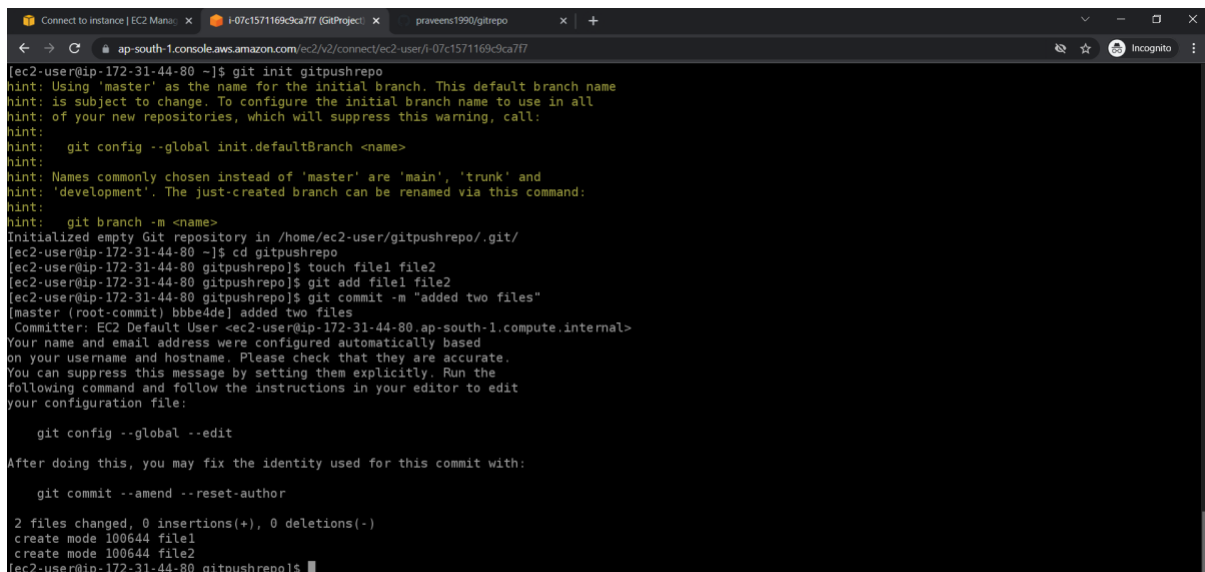
No packages published

Publish your first package

© 2022 GitHub, Inc. Terms Privacy Security Status Docs Contact GitHub Pricing API Training Blog About

LAB 5: (Pushing a locally created repo to GitHub):

- Create one repo in our local machine and initialize it locally (we have done it in **Lab - 2**)

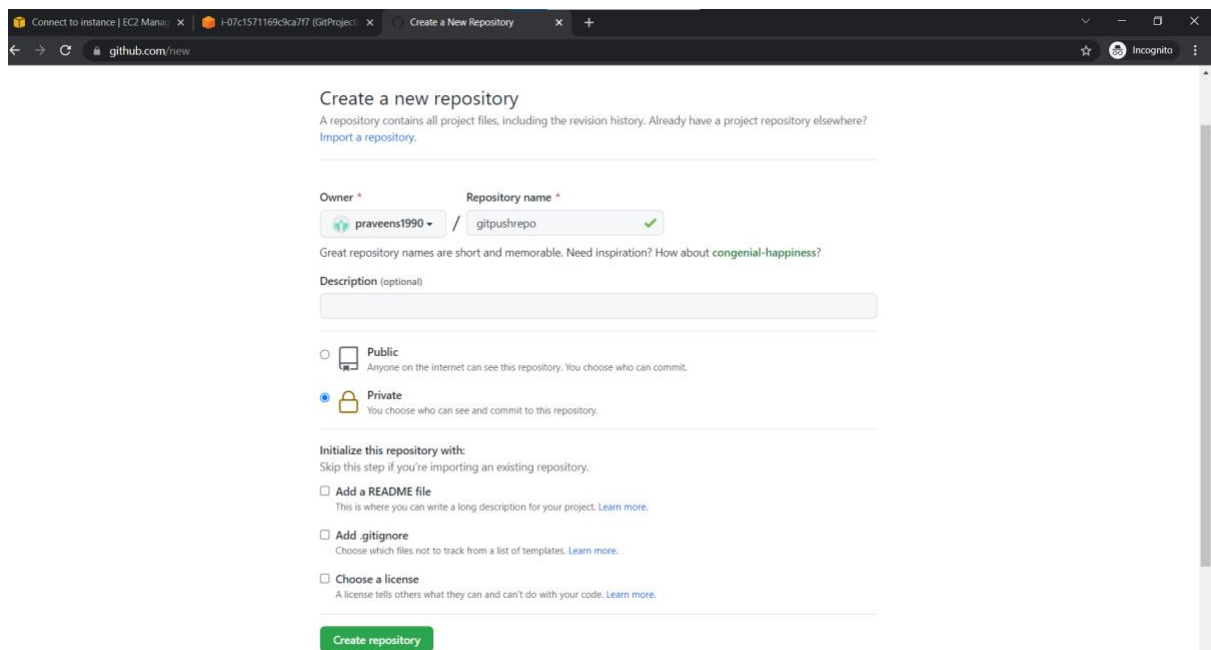


```
[ec2-user@ip-172-31-44-80 ~]$ git init gitpushrepo
hint: Using 'master' as the name for the initial branch. This default branch name
hint: is subject to change. To configure the initial branch name to use in all
hint: of your new repositories, which will suppress this warning, call:
hint:
hint:   git config --global init.defaultBranch <name>
hint:
hint: Names commonly chosen instead of 'master' are 'main', 'trunk' and
hint: 'development'. The just-created branch can be renamed via this command:
hint:
hint:   git branch -m <name>
Initialized empty Git repository in /home/ec2-user/gitpushrepo/.git/
[ec2-user@ip-172-31-44-80 ~]$ cd gitpushrepo
[ec2-user@ip-172-31-44-80 gitpushrepo]$ touch file1 file2
[ec2-user@ip-172-31-44-80 gitpushrepo]$ git add file1 file2
[ec2-user@ip-172-31-44-80 gitpushrepo]$ git commit -m "added two files"
[master (root-commit) bbb44de] added two files
Committer: EC2 Default User <ec2-user@ip-172-31-44-80.ap-south-1.compute.internal>
Your name and email address were configured automatically based
on your username and hostname. Please check that they are accurate.
You can suppress this message by setting them explicitly. Run the
following command and follow the instructions in your editor to edit
your configuration file:
    git config --global --edit
After doing this, you may fix the identity used for this commit with:
    git commit --amend --reset-author

2 files changed, 0 insertions(+), 0 deletions(-)
create mode 100644 file1
create mode 100644 file2
[ec2-user@ip-172-31-44-80 gitpushrepo]$
```

i-07c1571169c9ca7f7 (GitProject)
Public IPs: 3.109.186.4 Private IPs: 172.31.44.80


- Create one remote repo with the same name as local repo in GitHub and do not initialize it



Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository.](#)

Owner ⁺ Repository name ⁺

 praveens1990 / gitpushrepo ✓

Great repository names are short and memorable. Need inspiration? How about [congenial-happiness?](#)

Description (optional)

☐ Public
Anyone on the internet can see this repository. You choose who can commit.

☒ Private
You choose who can see and commit to this repository.

Initialize this repository with:

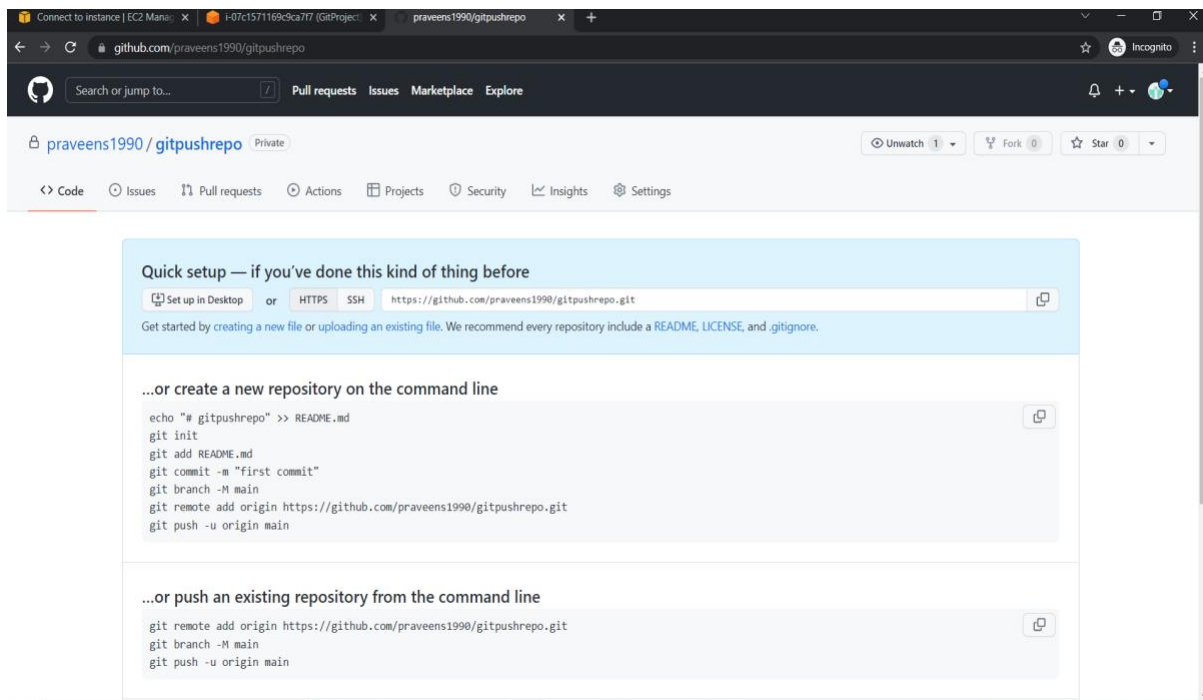
Skip this step if you're importing an existing repository.

☐ Add a README file
This is where you can write a long description for your project. [Learn more.](#)

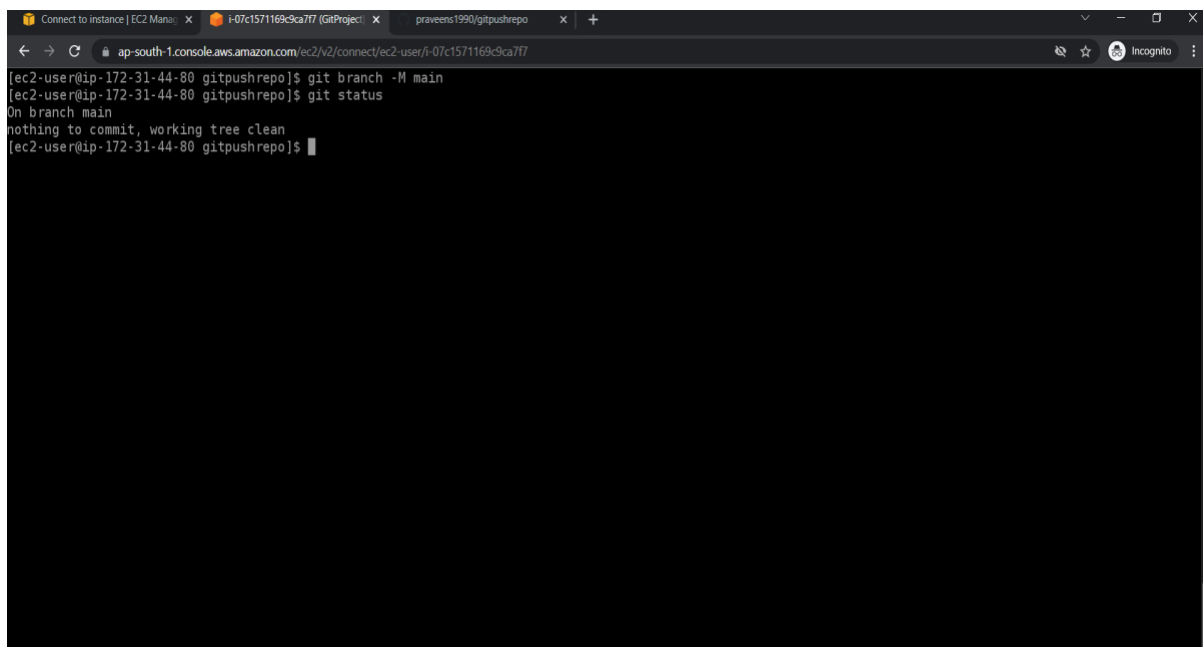
☐ Add .gitignore
Choose which files not to track from a list of templates. [Learn more.](#)

☐ Choose a license
A license tells others what they can and can't do with your code. [Learn more.](#)

[Create repository](#)



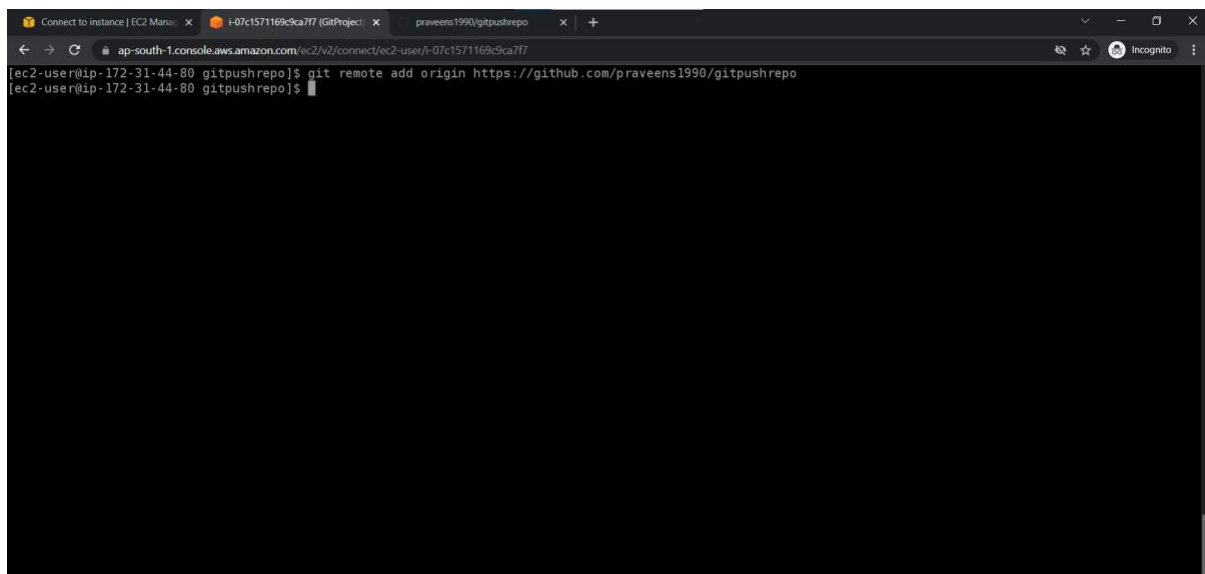
- Come to your local machine and run the following commands from inside your local repo (Lab – 2)
- git branch -M main (to change the name of branch as master branch is now known as main branch).



i-07c1571169c9ca7f7 (GitProject)

Public IPs: 3.109.186.4 Private IPs: 172.31.44.80

➤ **b. git remote add origin <URL of your remote repo>**

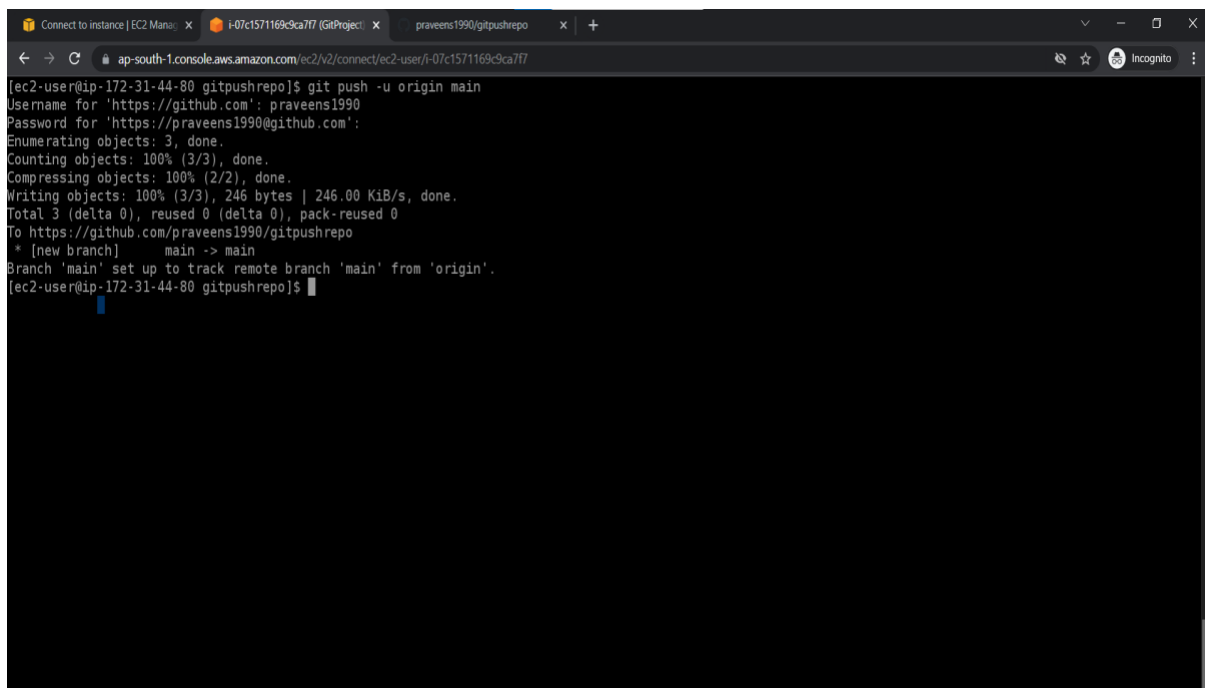


```
ap-south-1.console.aws.amazon.com/ec2/v2/connect/ec2-user/i-07c1571169c9ca7f7
[ec2-user@ip-172-31-44-80 gitpushrepo]$ git remote add origin https://github.com/praveens1990/gitpushrepo
[ec2-user@ip-172-31-44-80 gitpushrepo]$
```

i-07c1571169c9ca7f7 (GitProject)

Public IPs: 3.109.186.4 Private IPs: 172.31.44.80

➤ **c. git push -u origin main (to push your local branch to remote repo)**



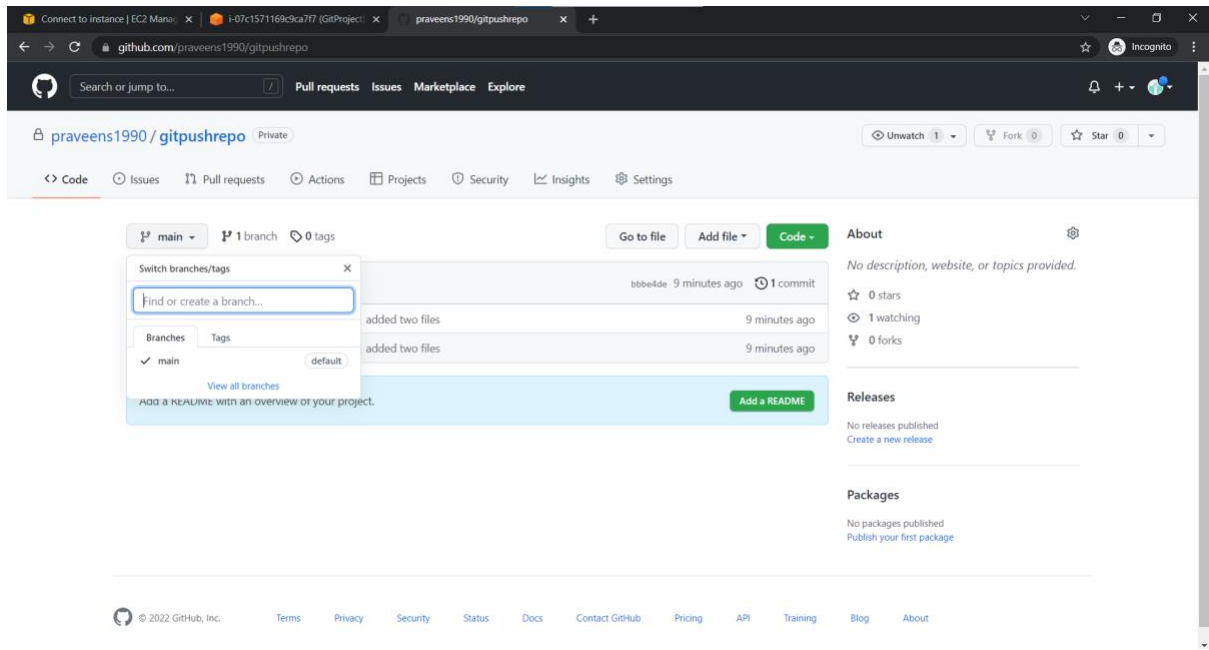
```
ap-south-1.console.aws.amazon.com/ec2/v2/connect/ec2-user/i-07c1571169c9ca7f7
[ec2-user@ip-172-31-44-80 gitpushrepo]$ git push -u origin main
Username for 'https://github.com': praveens1990
Password for 'https://praveens1990@github.com':
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 246 bytes | 246.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/praveens1990/gitpushrepo
 * [new branch]      main -> main
Branch 'main' set up to track remote branch 'main' from 'origin'.
[ec2-user@ip-172-31-44-80 gitpushrepo]$
```

i-07c1571169c9ca7f7 (GitProject)

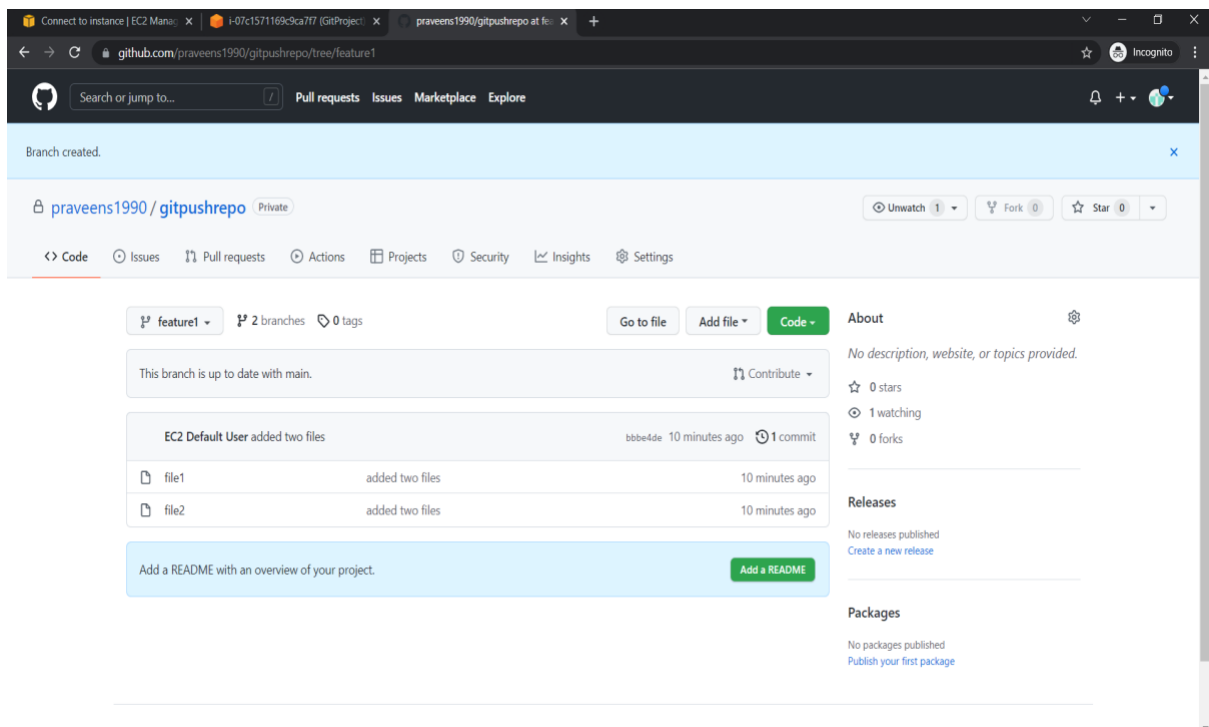
Public IPs: 3.109.186.4 Private IPs: 172.31.44.80

LAB 6: (Creating a new branch from your main branch):

- Go to the repository at the place of main and click on the branch dropdown.



- Type the name of your new branch that you want to create and click on create button.
- A new branch will be created for you

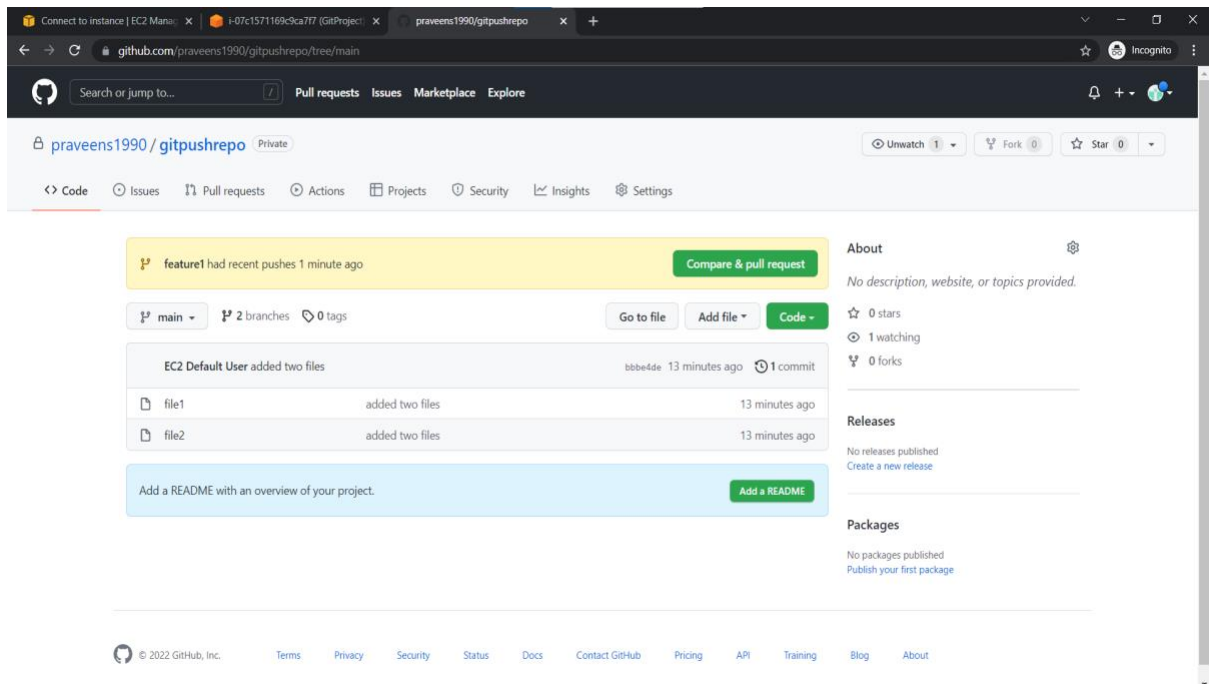


➤ Make some changes in this branch directly from the console

The screenshot shows the GitHub repository page for `praveens1990/gitpushrepo` in the `feature1` branch. The repository is private. The file `file3` is displayed, showing its commit history and contributors. The latest commit is by `praveens1990` with the message "Create file3" and commit hash `c7a4edd`, made 21 seconds ago. The file content is "1 new file create in feature branch". The repository has 1 contributor, 1 line of code, and 34 bytes. The page includes navigation links for Code, Issues, Pull requests, Actions, Projects, Security, Insights, and Settings. The footer shows the GitHub logo and copyright information for 2022.

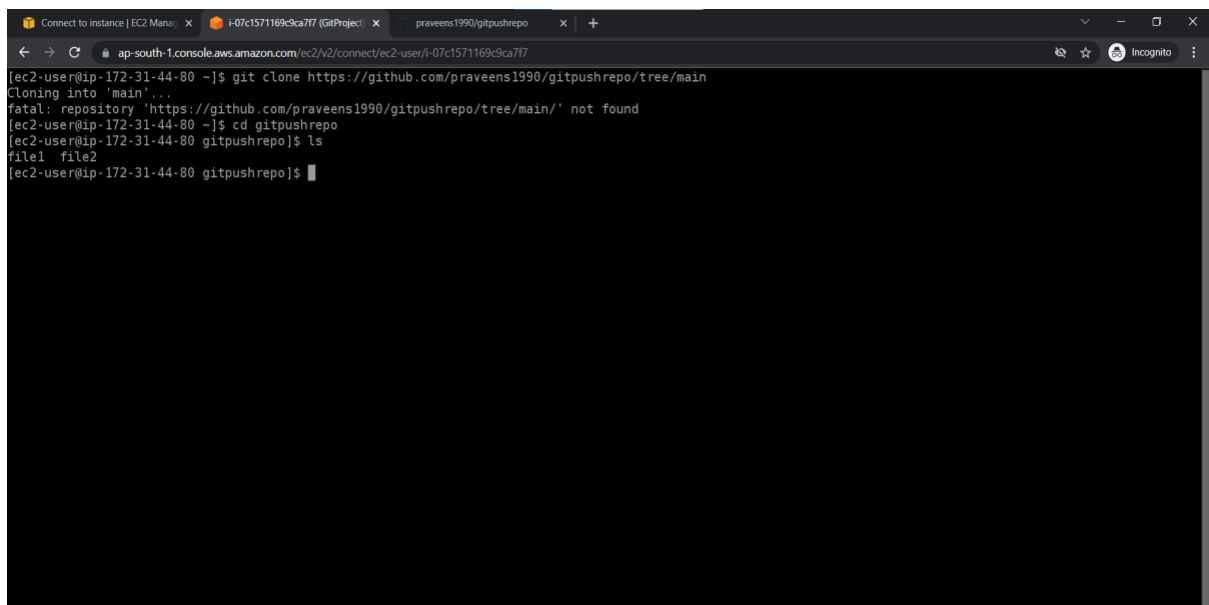
➤ Here you will see that your changes are only applied to your new branch but not to the main branch.

The screenshot shows the GitHub repository page for `praveens1990/gitpushrepo` in the `feature1` branch. The repository is private. The page displays the commit history for the `feature1` branch, showing that it is 1 commit ahead of the `main` branch. The commit history includes three commits by `praveens1990` with the message "Create file3", each adding a new file (`file1`, `file2`, and `file3`) and creating the file. The latest commit is `c7a4edd`, made 1 minute ago, with 2 commits in total. The page also includes a "Compare & pull request" button, a "Go to file" button, and a "Code" button. The right sidebar shows the repository's statistics: 0 stars, 1 watching, and 0 forks. The "Releases" section shows no releases published, and the "Packages" section shows no packages published. The footer shows the URL `https://github.com/praveens1990/gitpushrepo/tree/feature1`.



LAB 7: (Pull all the branches in your local machine):

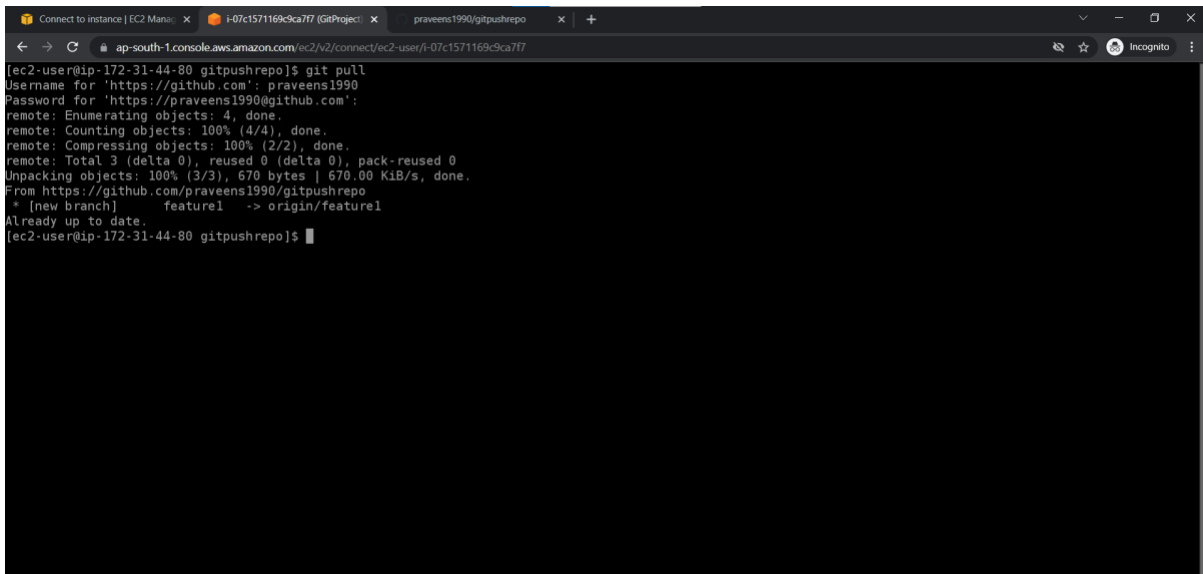
- Go to your local machine where you have the copy of your remote branch (Lab – 4).



i-07c1571169c9ca7f7 (GitProject)

Public IPs: 3.109.186.4 Private IPs: 172.31.44.80

- Run the command "git pull" to pull all the new changes such as branches from the remote location

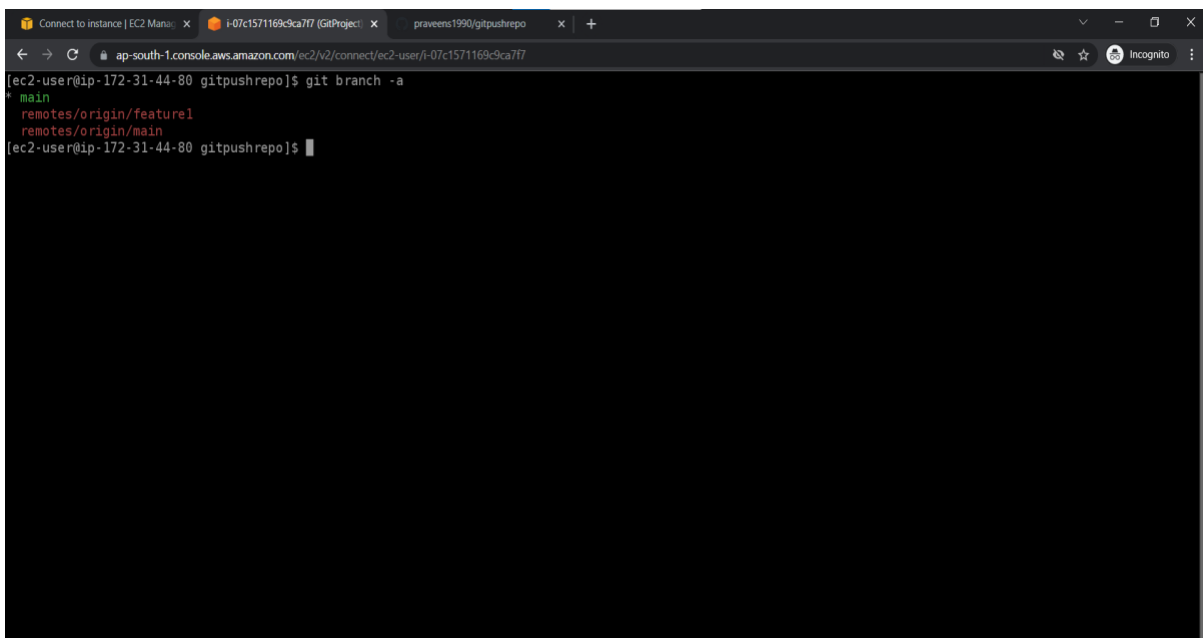


```
[ec2-user@ip-172-31-44-80 gitpushrepo]$ git pull
Username for 'https://github.com': praveens1990
Password for 'https://praveens1990@github.com':
remote: Enumerating objects: 4, done.
remote: Counting objects: 100% (4/4), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), 670 bytes | 670.00 KiB/s, done.
From https://github.com/praveens1990/gitpushrepo
* [new branch]      feature1 -> origin/feature1
Already up to date.
[ec2-user@ip-172-31-44-80 gitpushrepo]$
```

i-07c1571169c9ca7f7 (GitProject)

Public IPs: 3.109.186.4 Private IPs: 172.31.44.80

- Run "git branch -a" to list down all the branches.
- The branch which starts with remotes/ ---> are remote branches
 - The branch without remotes/ ---> they are available on your local copy as well



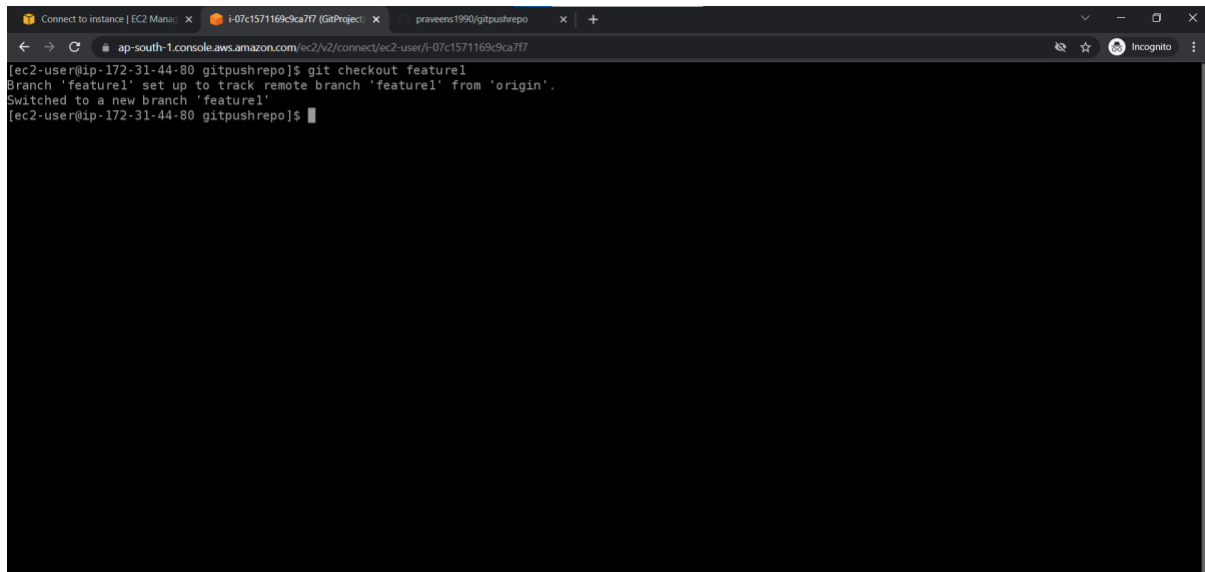
```
[ec2-user@ip-172-31-44-80 gitpushrepo]$ git branch -a
* main
  remotes/origin/feature1
  remotes/origin/main
[ec2-user@ip-172-31-44-80 gitpushrepo]$
```

i-07c1571169c9ca7f7 (GitProject)

Public IPs: 3.109.186.4 Private IPs: 172.31.44.80

➤ Checkout to the feature branch or the branch that you created in (Lab – 6).

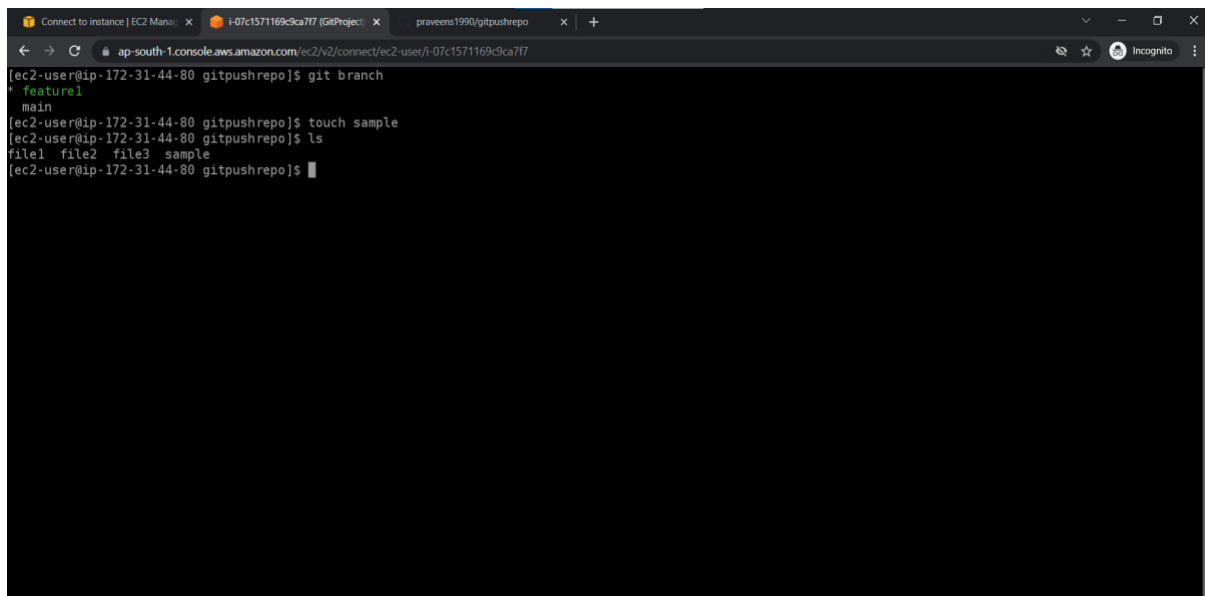
a. git checkout

A screenshot of a terminal window connected to an AWS EC2 instance. The terminal shows the command 'git checkout feature1' being executed. The output indicates that the branch 'feature1' is set up to track the remote branch 'feature1' from 'origin', and the user is switched to this new branch. The terminal prompt is '[ec2-user@ip-172-31-44-80 gitpushrepo]\$'.

i-07c1571169c9ca7f7 (GitProject)

Public IPs: 3.109.186.4 Private IPs: 172.31.44.80

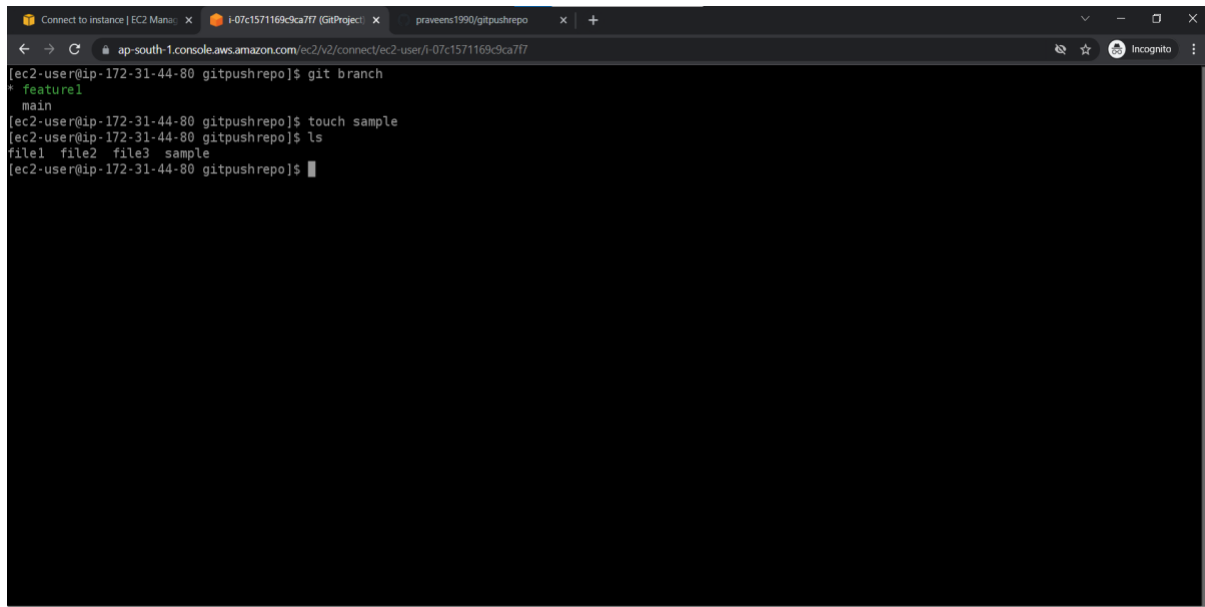
➤ Make sure that you are on the new branch by running git status or git branch command (notice the * mark)

A screenshot of a terminal window connected to an AWS EC2 instance. The terminal shows the command 'git branch' being executed, which lists the current branches: 'main' and 'feature1'. The 'feature1' branch is marked with an asterisk, indicating it is the current branch. The terminal prompt is '[ec2-user@ip-172-31-44-80 gitpushrepo]\$'. Below this, the command 'touch sample' is executed, and the output shows the files in the directory: 'file1 file2 file3 sample'. The terminal prompt is '[ec2-user@ip-172-31-44-80 gitpushrepo]\$'.

i-07c1571169c9ca7f7 (GitProject)

Public IPs: 3.109.186.4 Private IPs: 172.31.44.80

- Make some changes in this branch such as adding the files "touch sample"
- git status

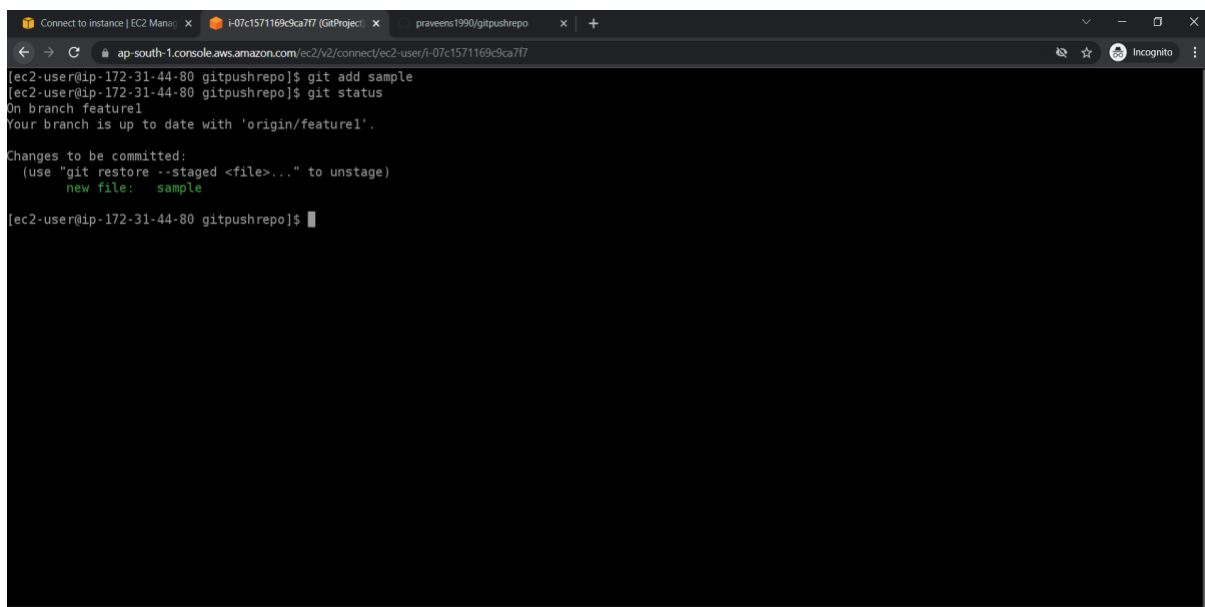


The screenshot shows a terminal window with the following commands and output:

```
[ec2-user@ip-172-31-44-80 gitpushrepo]$ git branch
* feature1
  main
[ec2-user@ip-172-31-44-80 gitpushrepo]$ touch sample
[ec2-user@ip-172-31-44-80 gitpushrepo]$ ls
file1 file2 file3 sample
[ec2-user@ip-172-31-44-80 gitpushrepo]$
```

i-07c1571169c9ca7f7 (GitProject)
Public IPs: 3.109.186.4 Private IPs: 172.31.44.80

- git add



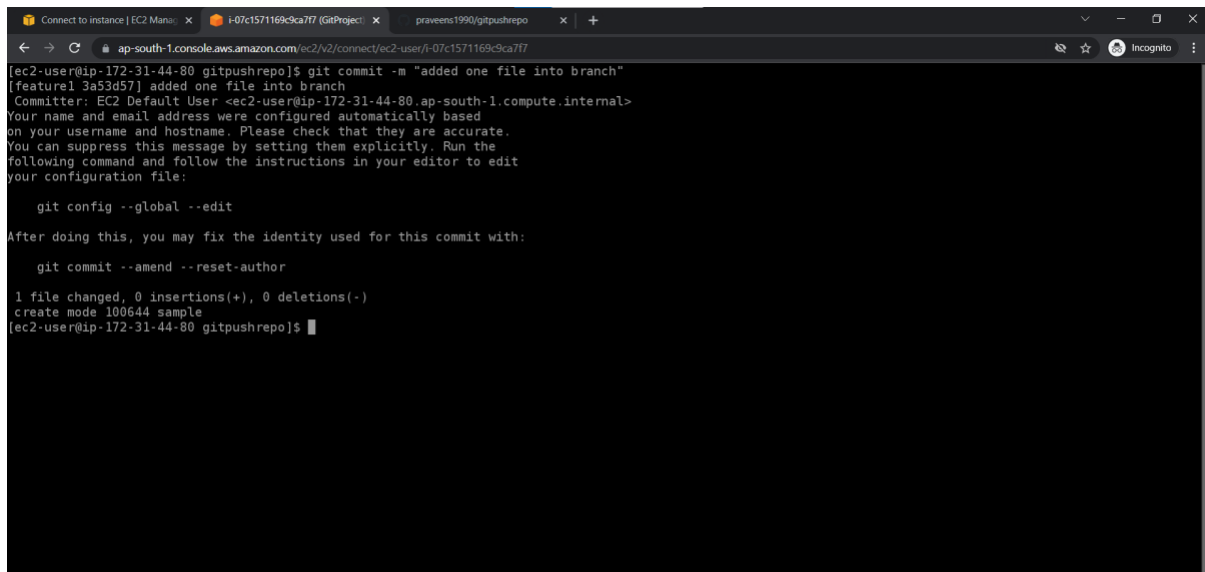
The screenshot shows a terminal window with the following commands and output:

```
[ec2-user@ip-172-31-44-80 gitpushrepo]$ git add sample
[ec2-user@ip-172-31-44-80 gitpushrepo]$ git status
On branch feature1
Your branch is up to date with 'origin/feature1'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   sample
[ec2-user@ip-172-31-44-80 gitpushrepo]$
```

i-07c1571169c9ca7f7 (GitProject)
Public IPs: 3.109.186.4 Private IPs: 172.31.44.80

➤ git commit -m "<msg>"

A screenshot of a terminal window titled 'i-07c1571169c9ca7f7 (GitProject)'. The terminal shows the execution of 'git commit -m "added one file into branch"'. The output includes the commit hash '3a53d57', the commit message, and instructions on how to configure git globally. The terminal also shows the command 'git config --global --edit' and the output '1 file changed, 0 insertions(+), 0 deletions(-)'. The terminal is running on an EC2 instance with IP address 172.31.44.80.

```
[ec2-user@ip-172-31-44-80 gitpushrepo]$ git commit -m "added one file into branch"
[feature1 3a53d57] added one file into branch
Committer: EC2 Default User <ec2-user@ip-172-31-44-80.ap-south-1.compute.internal>
Your name and email address were configured automatically based
on your username and hostname. Please check that they are accurate.
You can suppress this message by setting them explicitly. Run the
following command and follow the instructions in your editor to edit
your configuration file:

    git config --global --edit

After doing this, you may fix the identity used for this commit with:

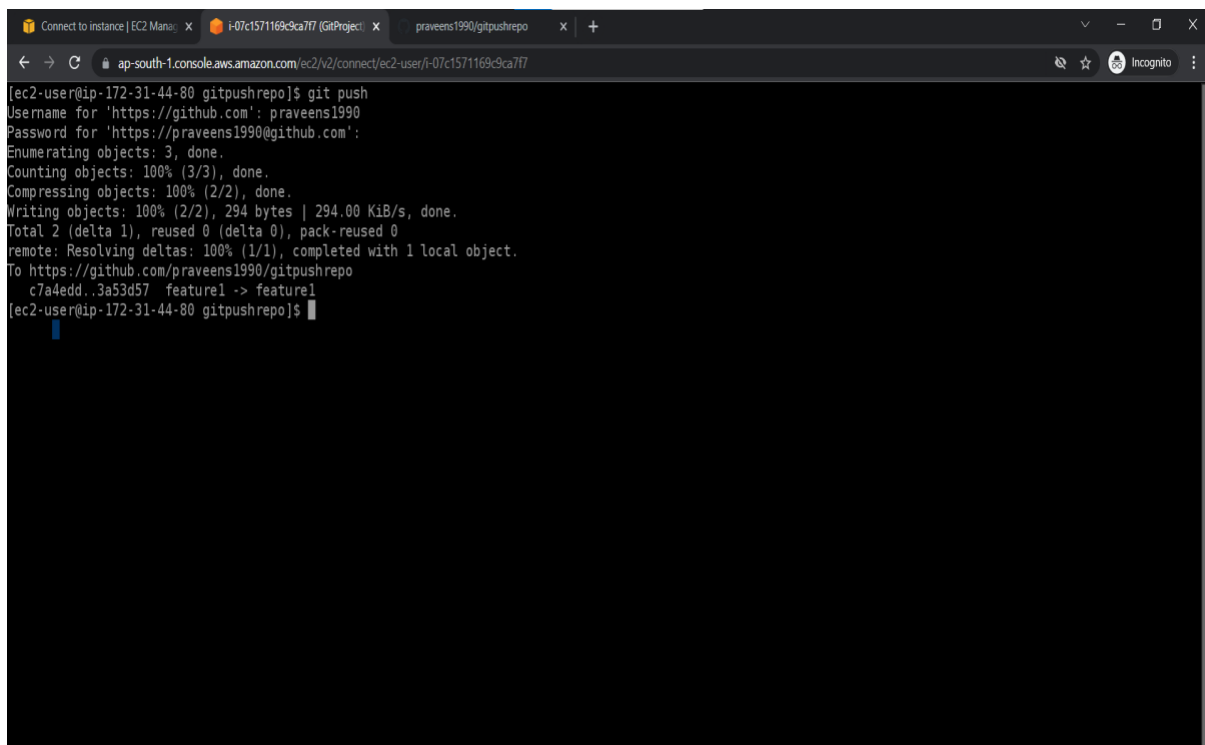
    git commit --amend --reset-author

1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 sample
[ec2-user@ip-172-31-44-80 gitpushrepo]$
```

i-07c1571169c9ca7f7 (GitProject)

Public IPs: 3.109.186.4 Private IPs: 172.31.44.80

➤ git push

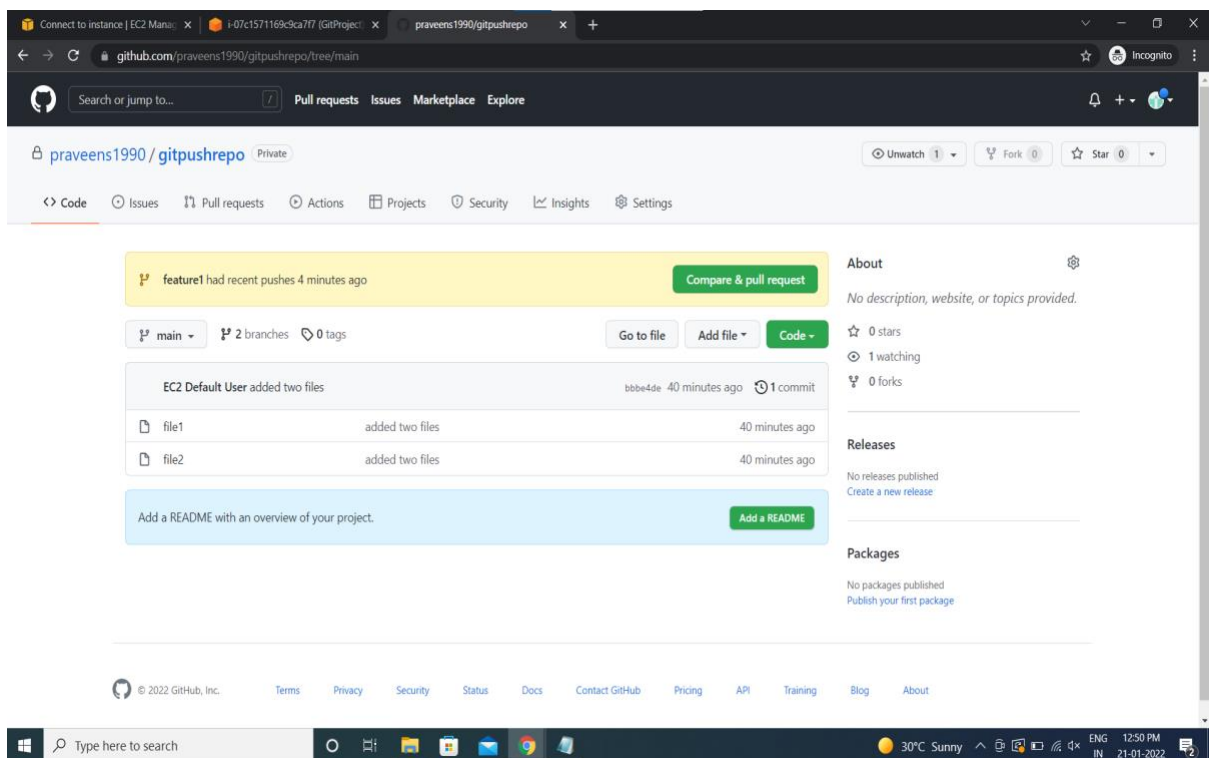
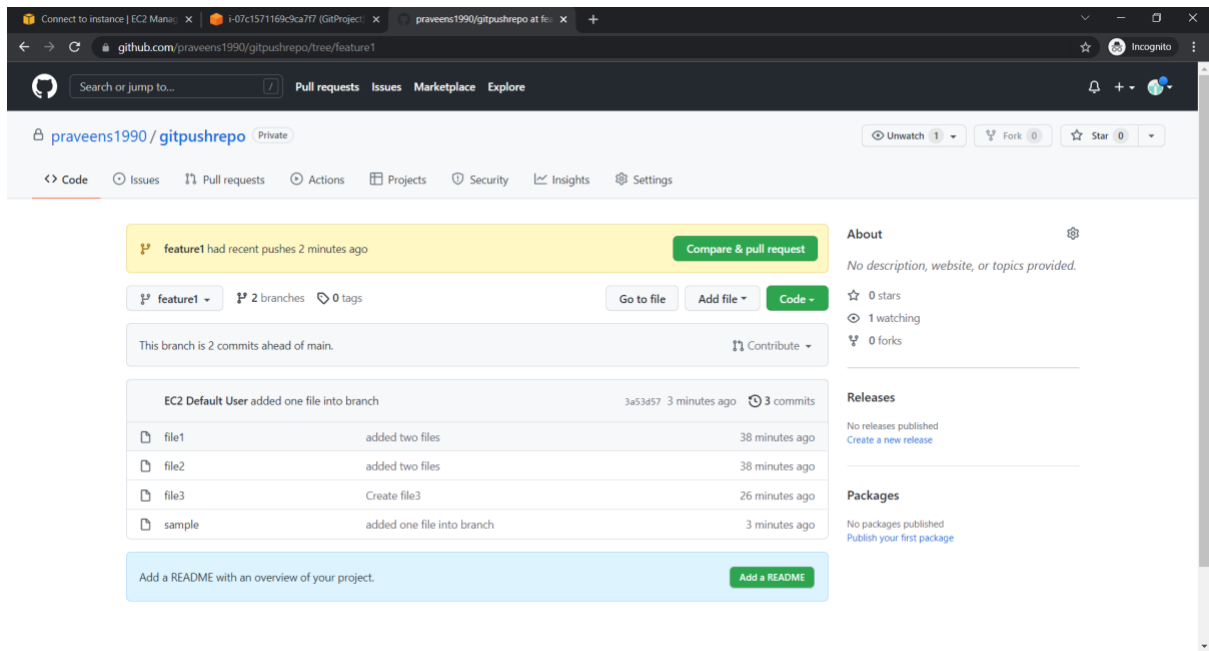
A screenshot of a terminal window titled 'i-07c1571169c9ca7f7 (GitProject)'. The terminal shows the execution of 'git push'. The output includes the username 'praveens1990', the password for 'https://praveens1990@github.com', and the progress of pushing the commit to the remote repository. The terminal also shows the command 'git push' and the output 'Total 2 (delta 1), reused 0 (delta 0), pack-reused 0'. The terminal is running on an EC2 instance with IP address 172.31.44.80.

```
[ec2-user@ip-172-31-44-80 gitpushrepo]$ git push
Username for 'https://github.com': praveens1990
Password for 'https://praveens1990@github.com':
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (2/2), 294 bytes | 294.00 KiB/s, done.
Total 2 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/praveens1990/gitpushrepo
   c7a4edd..3a53d57 feature1 -> feature1
[ec2-user@ip-172-31-44-80 gitpushrepo]$
```

i-07c1571169c9ca7f7 (GitProject)

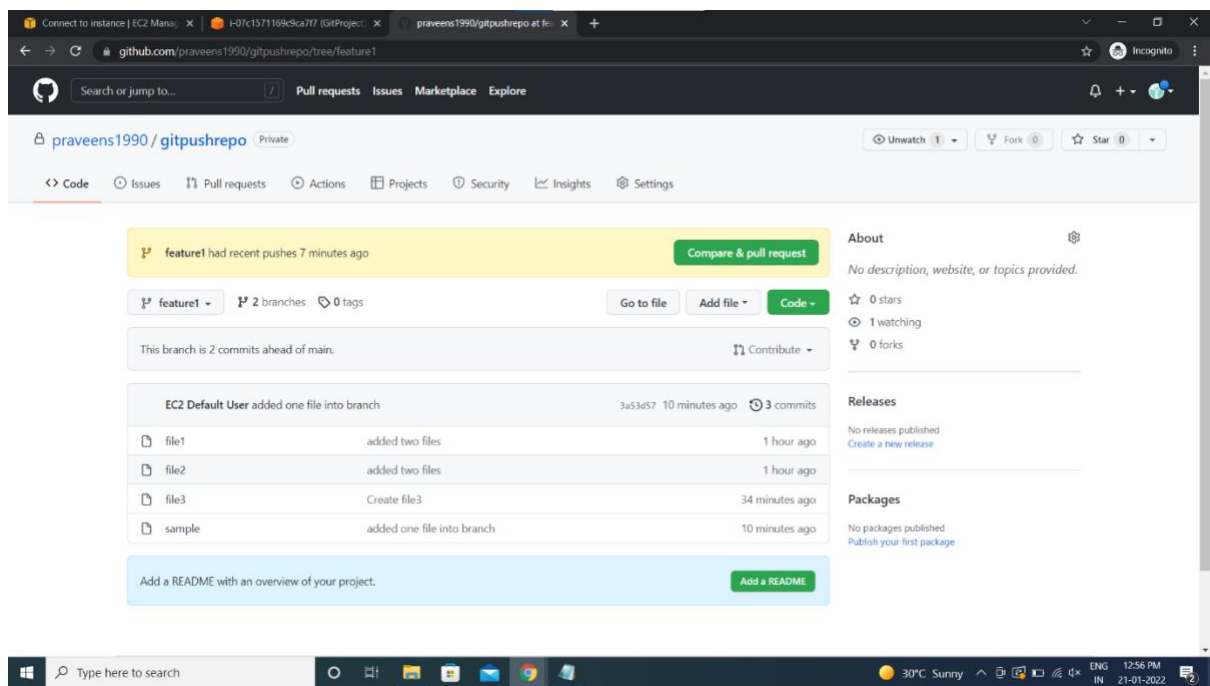
Public IPs: 3.109.186.4 Private IPs: 172.31.44.80

- Go to your GitHub portal once again
- Here see that the new changes are only available in your feature branch but not in the main branch

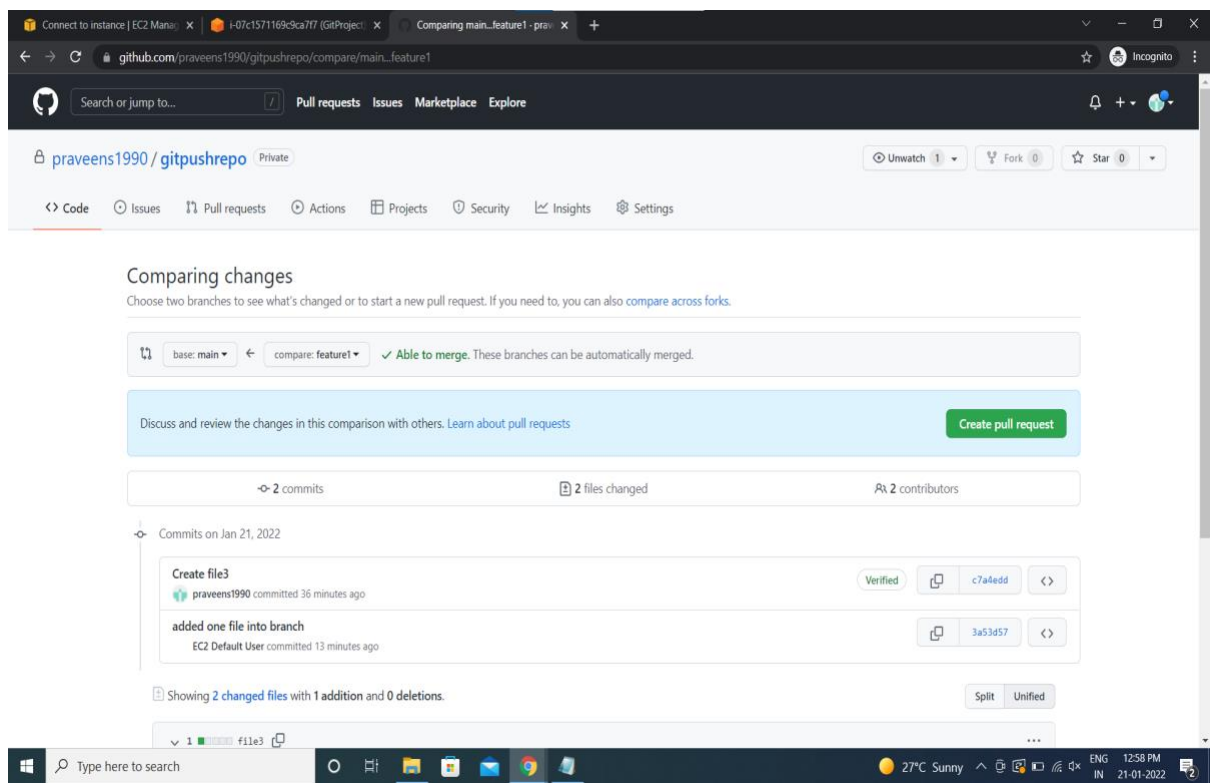


Lab 8: (Merge our feature branch with main branch):

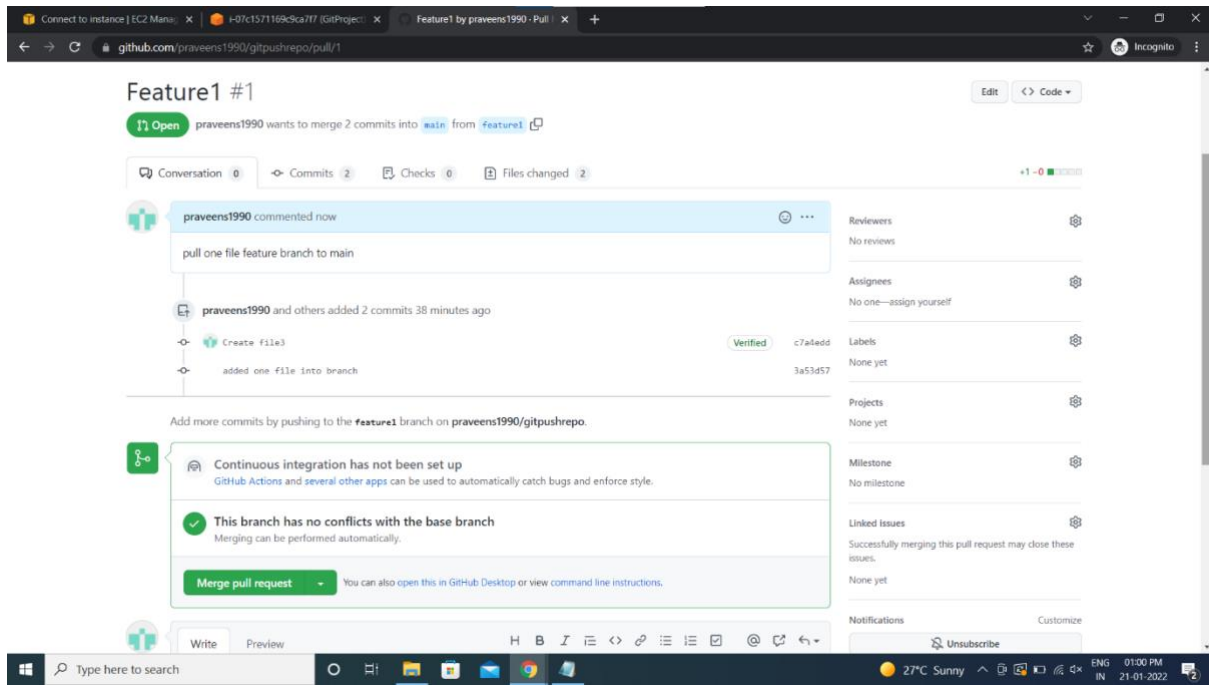
- Go to your GitHub repository
- Check the changes in your feature branch (Lab – 7)



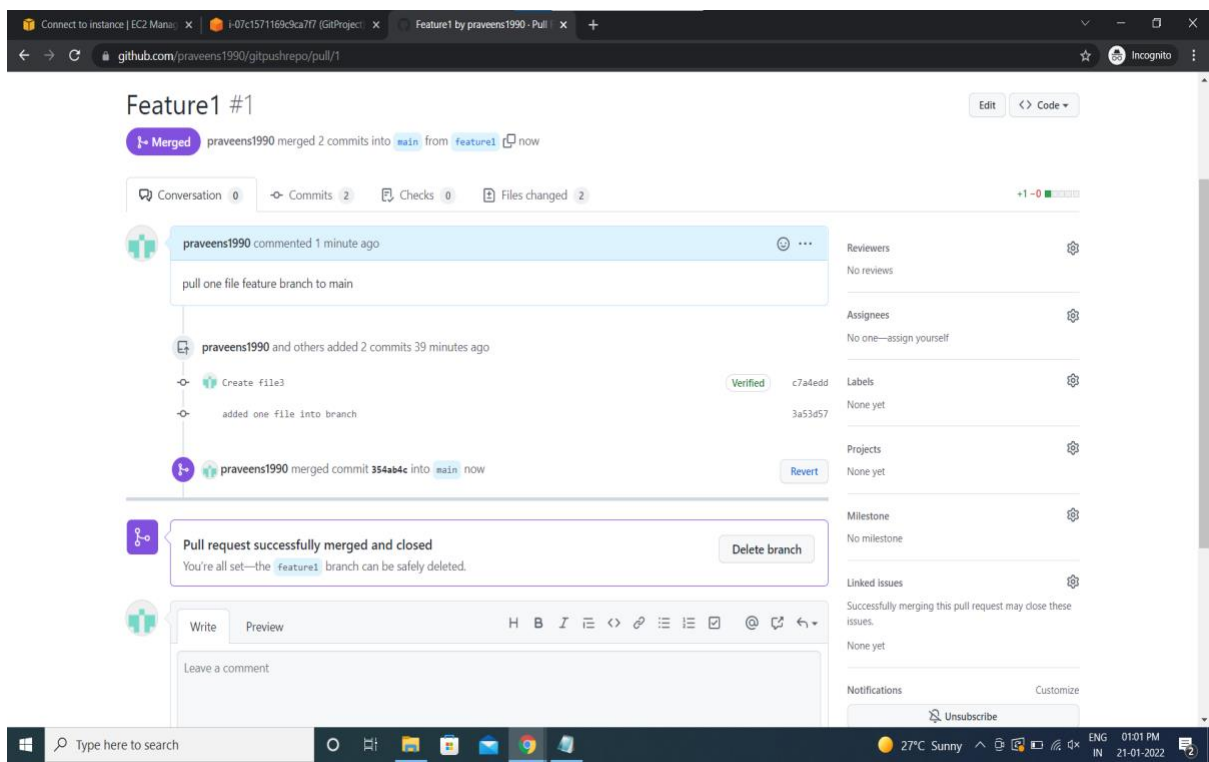
- Go to the pull request tab and click on create Pull Request (PR)



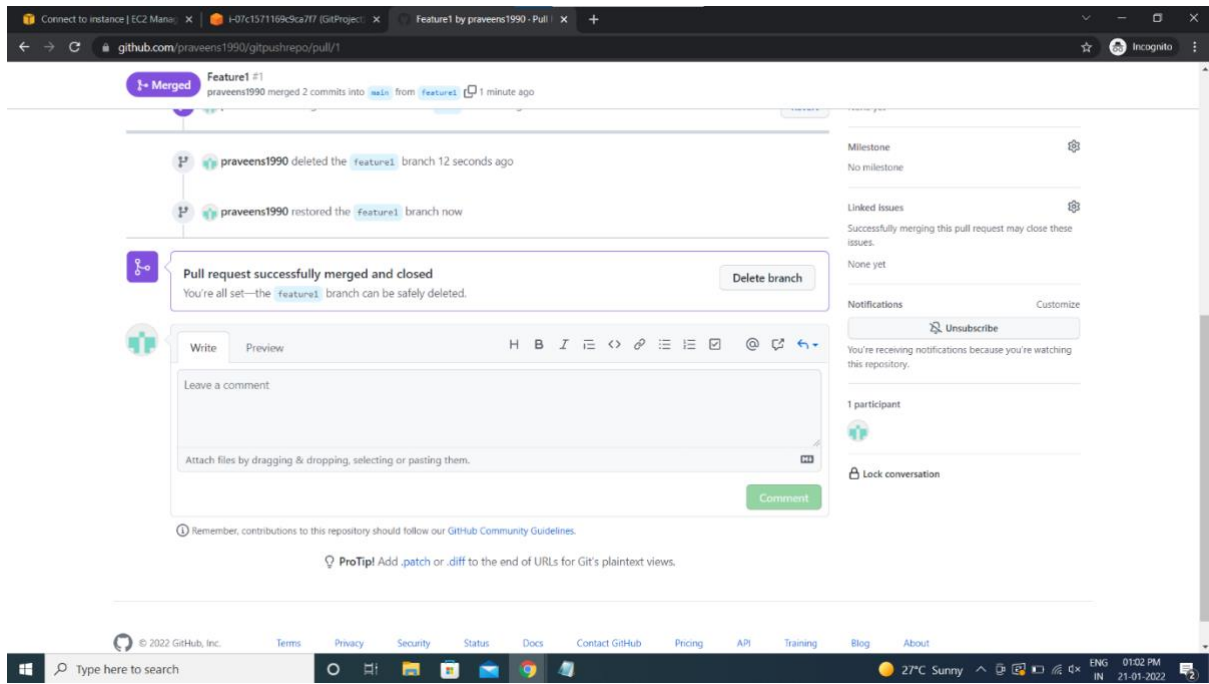
- Put your main branch (where u want to merge / destination) and the feature branch in the respective blocks.



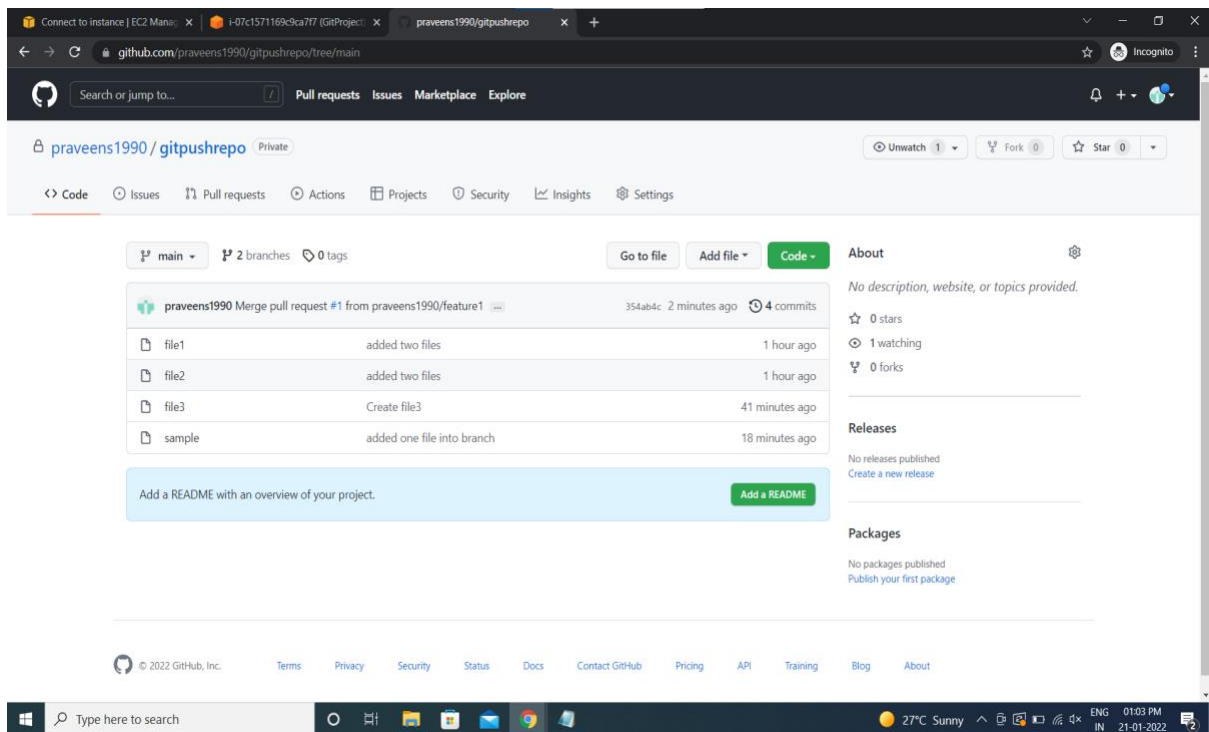
- Click on review changes and then merge.



- Once done, you can delete this feature branch if required or you can simply ignore it.

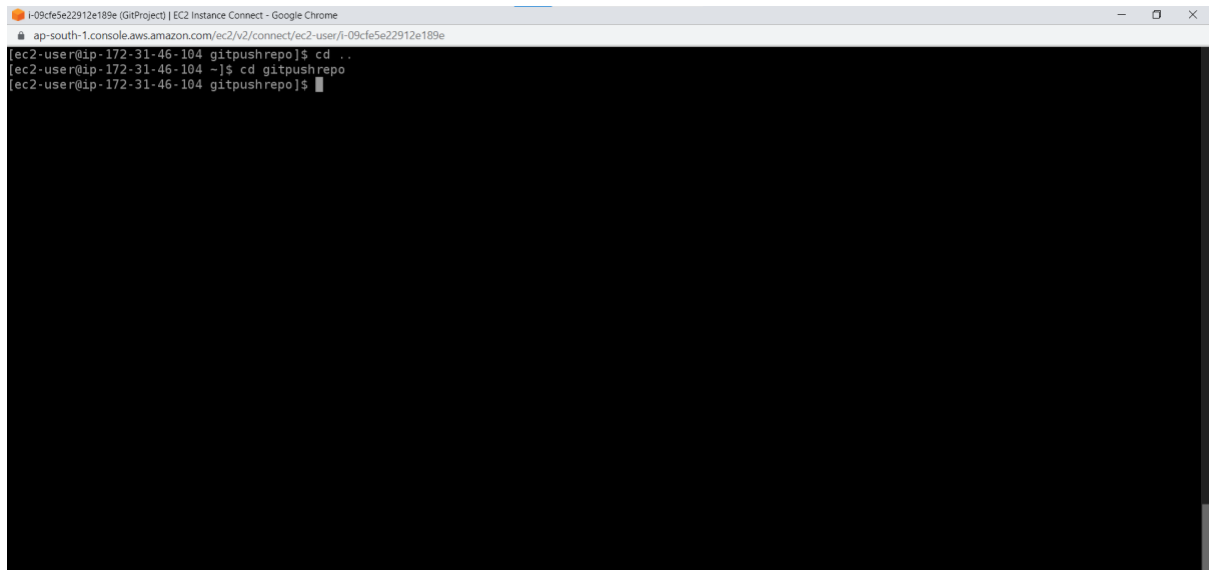


- Go to your code in main branch and see the changes are now visible here.



Lab 9: (Go to local machine):

- Go to your local machine where you have the copy of your remote repo (Lab – 7).



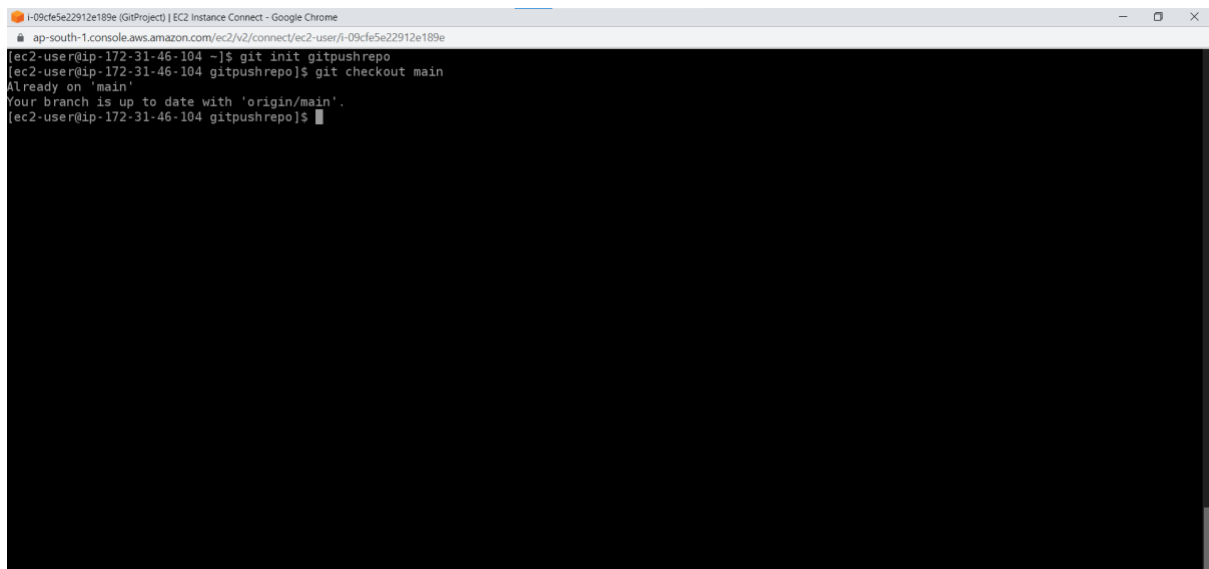
The screenshot shows a terminal window titled "i-09cfe5e22912e189e (GitProject) | EC2 Instance Connect - Google Chrome". The address bar shows "ap-south-1.console.aws.amazon.com/ec2/v2/connect/ec2-user/i-09cfe5e22912e189e". The terminal output shows the following commands and responses:

```
[ec2-user@ip-172-31-46-104 gitpushrepo]$ cd ..  
[ec2-user@ip-172-31-46-104 ~]$ cd gitpushrepo  
[ec2-user@ip-172-31-46-104 gitpushrepo]$
```

i-09cfe5e22912e189e (GitProject)

Public IPs: 65.2.33.248 Private IPs: 172.31.46.104

- Checkout to the main branch
 - a. `git checkout <branch name>`



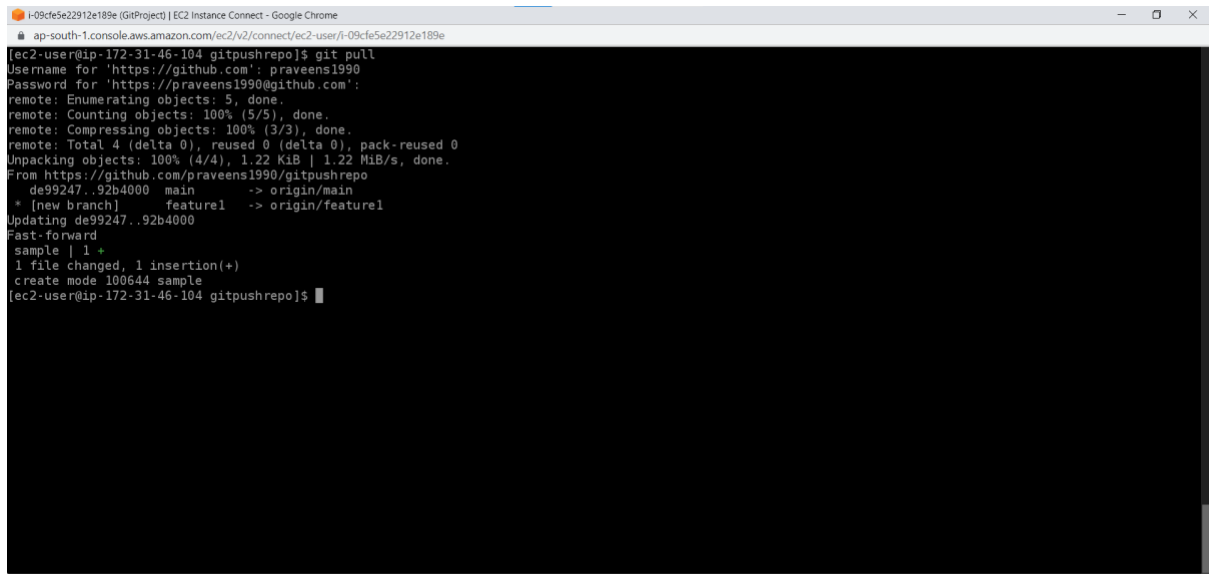
The screenshot shows a terminal window titled "i-09cfe5e22912e189e (GitProject) | EC2 Instance Connect - Google Chrome". The address bar shows "ap-south-1.console.aws.amazon.com/ec2/v2/connect/ec2-user/i-09cfe5e22912e189e". The terminal output shows the following commands and responses:

```
[ec2-user@ip-172-31-46-104 ~]$ git init gitpushrepo  
[ec2-user@ip-172-31-46-104 gitpushrepo]$ git checkout main  
Already on 'main'  
Your branch is up to date with 'origin/main'.  
[ec2-user@ip-172-31-46-104 gitpushrepo]$
```

i-09cfe5e22912e189e (GitProject)

Public IPs: 65.2.33.248 Private IPs: 172.31.46.104

- Now run the command "git pull" to pull all the new changes such as branches from the remote location

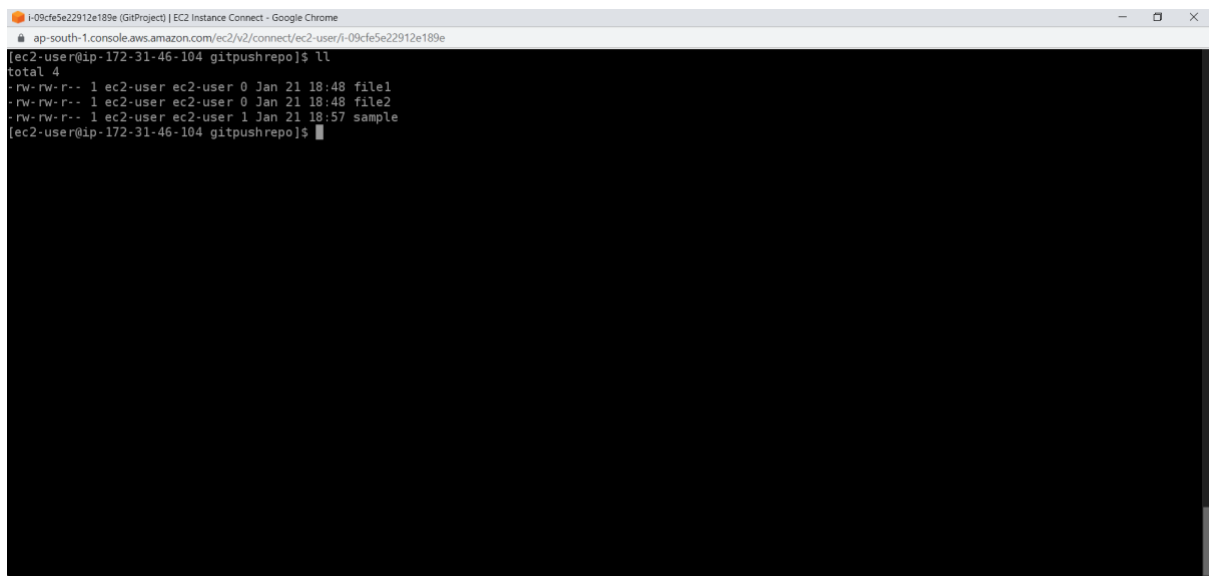


```
[ec2-user@ip-172-31-46-104 gitpushrepo]$ git pull
Username for 'https://github.com': praveens1990
Password for 'https://praveens1990@github.com':
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 4 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (4/4), 1.22 KiB | 1.22 MiB/s, done.
From https://github.com/praveens1990/gitpushrepo
   de99247..92b4000  main       -> origin/main
   * [new branch]      feature1 -> origin/feature1
Updating de99247..92b4000
Fast-forward
 sample | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 sample
[ec2-user@ip-172-31-46-104 gitpushrepo]$
```

i-09cfe5e22912e189e (GitProject)

Public IPs: 65.2.33.248 Private IPs: 172.31.46.104

- Here see that the new changes are only available in your main branch.



```
[ec2-user@ip-172-31-46-104 gitpushrepo]$ ls
total 4
-rw-rw-r-- 1 ec2-user ec2-user 0 Jan 21 18:48 file1
-rw-rw-r-- 1 ec2-user ec2-user 0 Jan 21 18:48 file2
-rw-rw-r-- 1 ec2-user ec2-user 1 Jan 21 18:57 sample
[ec2-user@ip-172-31-46-104 gitpushrepo]$
```

i-09cfe5e22912e189e (GitProject)

Public IPs: 65.2.33.248 Private IPs: 172.31.46.104