

|                                     |                                                                 |
|-------------------------------------|-----------------------------------------------------------------|
| <b>School: CLOUDBOOSTA</b>          | <b>Course: Cloud Computing &amp; DevOps</b>                     |
| <b>Name: AKOSA SAMUEL ONYEJEKWE</b> | <b>Module: Git &amp; Github</b>                                 |
|                                     | <b>Class 7: Assignment_ Git Repo Setup &amp; Push to Github</b> |
| <b>Student No: CBALC0168</b>        | <b>Issue Date: April 1, 2026</b>                                |

## Tasks:

1. Initialise a Git repository
2. Create and manage files using Git workflow
3. Commit changes with proper version control
4. Push local repository to GitHub
5. Collaborate using GitHub (invite, clone, branch, pull request)
6. Review, merge, and synchronise changes

## Goal:

To learn how to use Git and GitHub for version control, code management, and team collaboration in a DevOps environment.

## Result:

- Git repository successfully initialised
- Files tracked and committed successfully
- Local repository pushed to GitHub
- GitHub repository created and verified
- Collaboration workflow implemented using branches and pull requests
- Changes reviewed, merged, and synchronised successfully

## Action:

### Step 1: Initialised Git Repository

- Created project directory
- Navigated into folder
- Ran:

```
git init
```

Git created a hidden `.git` directory to track changes

## Step 2: Created and Updated File

- Created file: `readme.md`
- Added content: *My first github project*

## Step 3: Checked Git Status

- Ran:

`git status`

File shown as **untracked**

## Step 4: Staged File

- Ran:

`git add readme.md`

File moved to staging area

## Step 5: Committed Changes

- Ran:

`git commit -m "my first commit"`

File saved as version snapshot

## Step 6: Verified Clean State

- Ran:

`git status`

Output shows:

- *nothing to commit, working tree clean*

## Step 7: Created GitHub Repository

- Logged into GitHub
- Created new repository: **project-sam**
- Set visibility to public

## Step 8: Connected Local Repo to GitHub

- Ran:

```
git remote add origin <repo-url>  
git branch -M main
```

## Step 9: Pushed Code to GitHub

- Ran:

```
git push -u origin main
```

Repository successfully uploaded

# PART 2: COLLABORATION WORKFLOW

## Step 10: Invited Collaborators

- Navigated to repository settings
- Added users as collaborators

## Step 11: Accepted Invitation

- Collaborators received email
- Accepted invitation to join repository

## Step 12: Protected Main Branch

- Enabled branch protection rule
- Required:
  - Pull request before merge
  - Approval before merging

## Step 13: Cloned Repository

- Created new directory
- Ran:

```
git clone <repo-url>
```

## Step 14: Created Feature Branch

- Ran:

```
git checkout -b feature/task-x
```

Each member worked on assigned task

### Step 15: Created Terraform File

- Created .tf file based on task
- Example:
  - create-routeTable.tf
  - create-securityGroup.tf

### Step 16: Added, Committed, and Pushed Changes

- Ran:

```
git add .  
git commit -m "created a routeTable"  
git push origin feature/task-routeTable
```

### Step 17: Created Pull Request

- Navigated to GitHub
- Clicked:
  - Compare & pull request
  - Create pull request

### Step 18: Reviewed and Merged Changes

- Leader reviewed code
- Merged into main branch

### Step 19: Synchronised Repository

- Ran:

```
git pull origin main
```

Local repo updated with team changes

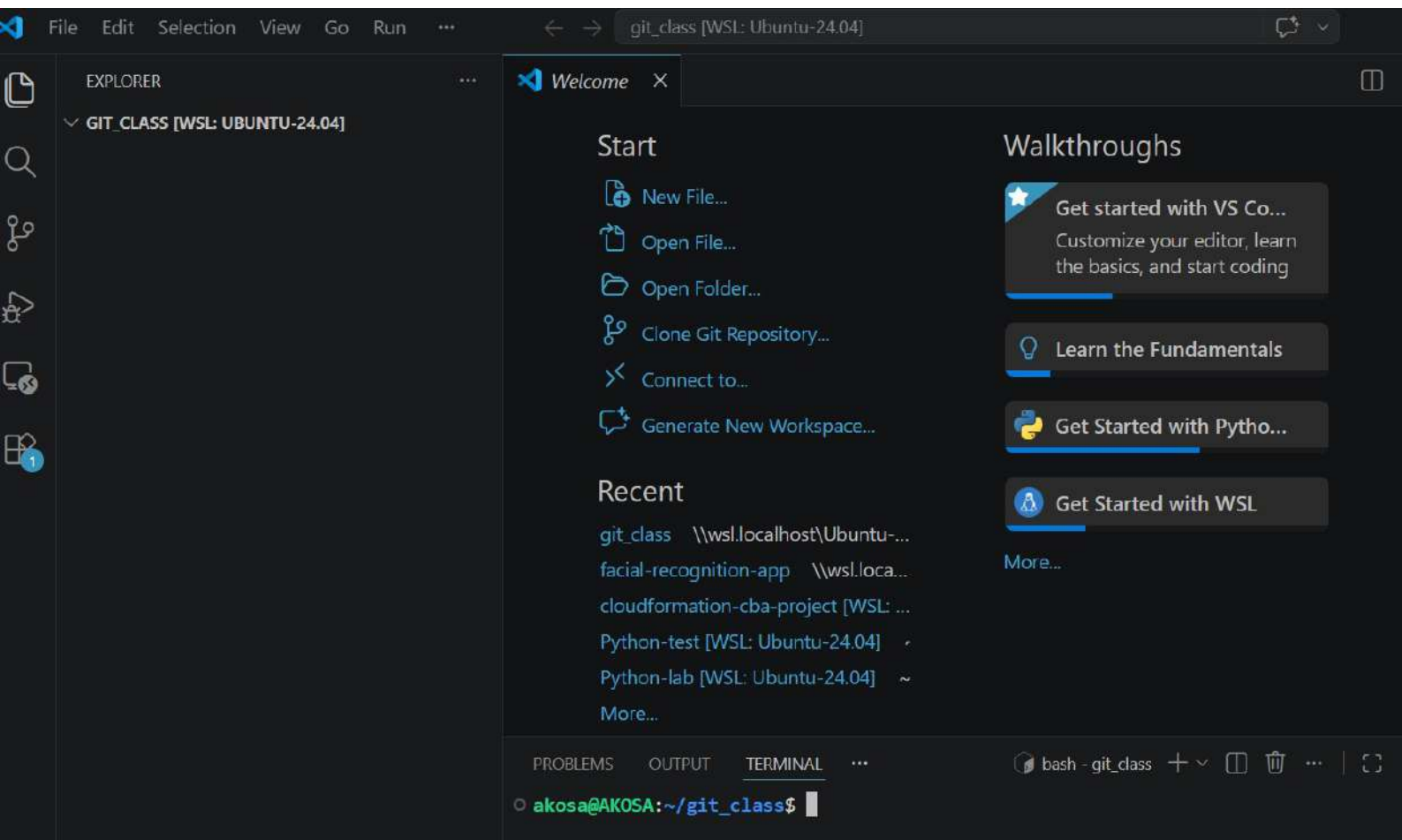
Screenshots follow.

## Summary

- Git was used to initialise and manage a local repository
- Files were tracked, staged, and committed using Git workflow
- Repository was successfully pushed to GitHub
- Collaboration was achieved through:
  - Branching
  - Pull requests
  - Code reviews
- Branch protection ensured controlled and secure merging
- Final synchronisation ensured all team members had updated code

✓ Lab objective achieved:

“Initialised Git repository, managed workflow, pushed to GitHub, and collaborated effectively”



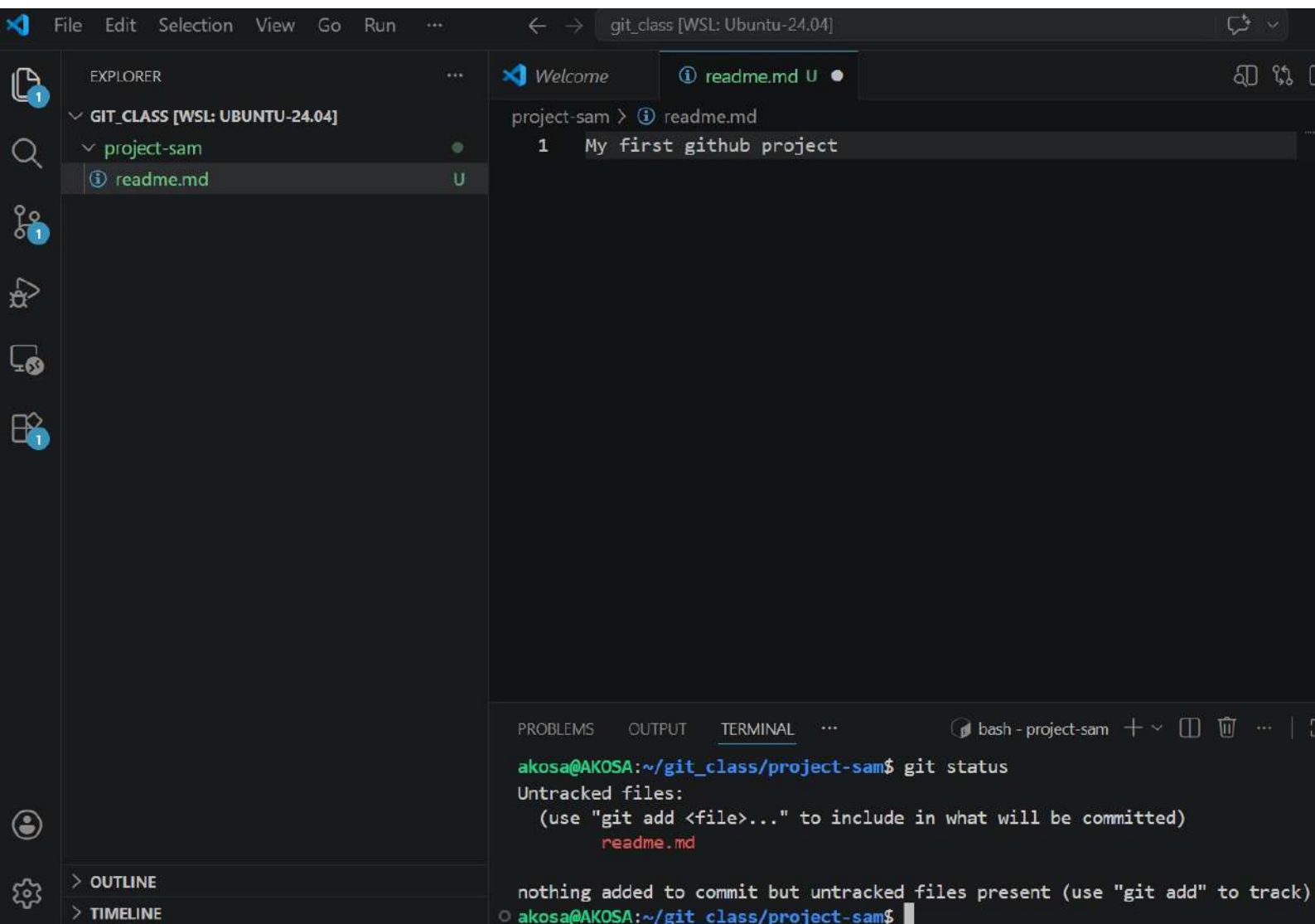
PROBLEMS OUTPUT TERMINAL ...

 bash - project-sam + ▾   ... |  ×

```
● akosa@AKOSA:~/git_class$ mkdir project-sam
● akosa@AKOSA:~/git_class$ cd project-sam
● akosa@AKOSA:~/git_class/project-sam$ git init
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:
```

PROBLEMS OUTPUT TERMINAL ... bash - project-sam + v [ ] [ ] ... | [ ] [ ] X

```
akosa@AKOSA:~/git_class/project-sam$ git init
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/akosa/git_class/project-sam/.git/
akosa@AKOSA:~/git_class/project-sam$
```



PROBLEMS

OUTPUT

TERMINAL

...



bash - project-sam



...

● akosa@AKOSA:~/git\_class/project-sam\$ git add readme.md

● akosa@AKOSA:~/git\_class/project-sam\$ git status

On branch master

No commits yet

Changes to be committed:

PROBLEMS

OUTPUT

TERMINAL

...



bash - project-sam + \

```
akosa@AKOSA:~/git_class/project-sam$ git status
```

No commits yet

Changes to be committed:

(use "git rm --cached <file>..." to unstage)

new file: readme.md

PROBLEMS

OUTPUT

TERMINAL

...



bash - project-sam + v

```
akosa@AKOSA:~/git_class/project-sam$ git status
```

Changes to be committed:

(use "git rm --cached <file>..." to unstage)

new file: readme.md

```
akosa@AKOSA:~/git_class/project-sam$
```

PROBLEMS

OUTPUT

TERMINAL

...



bash - project-sam



```
● akosa@AKOSA:~/git_class/project-sam$ git commit -m "my first commit"
[master (root-commit) 42e3064] my first commit
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 readme.md
○ akosa@AKOSA:~/git_class/project-sam$
```

PROBLEMS

OUTPUT

TERMINAL

...



bash - project-sam

● akosa@AKOSA:~/git\_class/project-sam\$ git status

On branch master

nothing to commit, working tree clean

○ akosa@AKOSA:~/git\_class/project-sam\$

# Create a new repository

Repositories contain a project's files and version history. Have a project elsewhere? [Import a repository](#).  
Required fields are marked with an asterisk (\*).

## 1 General

Owner \*

👤 samuelakosaonyejekwe

/

Repository name \*

project-sam

✔ project-sam is available.

Great repository names are short and memorable. How about [fantastic-invention?](#)

Description

0 / 250 characters

## 2 Configuration

Choose visibility \*

Choose who can see and commit to this repository

Public

Add README

READMEs can be used as longer descriptions. [About READMEs](#)

Off

Add .gitignore

.gitignore tells git which files not to track. [About ignoring files](#)

No .gitignore

Add license

Licenses explain how others can use your code. [About licenses](#)

No license

Create repository

On April 24 we'll start using GitHub Copilot interaction data for AI model training unless you opt out. [Review this update](#) and manage your preferences in your [GitHub account settings](#).

 project-sam Public

 Pin

 Watch 0

 Fork 0

 Star 0



### Start coding with Codespaces

Add a README file and start coding in a secure, configurable, and dedicated development environment.

[Create a codespace](#)

### Add collaborators to this repository

Search for people using their GitHub username or email address.

[Invite collaborators](#)

## Quick setup — if you've done this kind of thing before

 Set up in Desktop

 or 

HTTPS

SSH

<https://github.com/samuelakosaonyejekwe/project-sam.git>



Get started by [creating a new file](#) or [uploading an existing file](#). We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).

## ...or create a new repository on the command line

```
echo "# project-sam" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M main
git remote add origin https://github.com/samuelakosaonyejekwe/project-sam.git
git push -u origin main
```



## ...or push an existing repository from the command line

```
git remote add origin https://github.com/samuelakosaonyejekwe/project-sam.git
git branch -M main
git push -u origin main
```



 **ProTip!** Use the URL for this page when adding GitHub as a remote.



PROBLEMS

OUTPUT

TERMINAL

...



bash - project-sam



```
● akosa@AKOSA:~/git_class/project-sam$ git remote add origin https://github.com/samuelakosaonyejekwe/project-sam.git
● akosa@AKOSA:~/git_class/project-sam$ git branch -M main
● akosa@AKOSA:~/git_class/project-sam$ git push -u origin main
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Writing objects: 100% (3/3), 227 bytes | 227.00 KiB/s, done.
```

PROBLEMS

OUTPUT

TERMINAL

...



bash - project-sam +

```
akosa@AKOSA:~/git_class/project-sam$ git push -u origin main
Writing objects: 100% (3/3), 227 bytes | 227.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/samuelakosaonyekwe/project-sam.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.
akosa@AKOSA:~/git_class/project-sam$
```

Project

Navigation

Search

Buttons

On April 24 we'll start using GitHub Copilot interaction data for AI model training unless you opt out. [Review this update](#) and manage your preferences in your [GitHub account settings](#).

project-sam

Public

Pin

Watch 0

Fork 0

Star 0

main 1 Branch 0 Tags

Go to file

Add file

Code

Commit

my first commit

42:3064 · 15 minutes ago

1 Commit

readme.md

my first commit

15 minutes ago

README

About

No description, website, or topics provided.

Activity

0 stars

0 watching

0 forks

Releases

No releases published

Create a new release

Packages

No packages published

Publish your first package

Contributors 1

Avatar

username

Footer



Ayooluwabami invited you to collaborate on

Ayooluwabami/ProjectX

Accept invitation

Decline invitation

Owners of ProjectX will be able to see:

- Your public profile information
- Certain activity within this repository
- Country of request origin
- Your access level for this repository
- Your IP address

Is this user sending spam or malicious content?

[Block Ayooluwabami](#)

PROBLEMS

OUTPUT

TERMINAL

...



bash - git\_class



```
akosa@AKOSA:~/git_class/project-sam$ cd ..
akosa@AKOSA:~/git_class$ mkdir groupTask
akosa@AKOSA:~/git_class$ git clone https://github.com/Ayooluwabami/ProjectX
Cloning into 'ProjectX'...
remote: Enumerating objects: 14, done.
remote: Counting objects: 100% (14/14), done.
remote: Compressing objects: 100% (11/11), done.
```

PROBLEMS

OUTPUT

TERMINAL

...

 bash - git\_class     ...

```
akosa@AKOSA:~/git_class$ git clone https://github.com/Ayooluwabami/ProjectX
remote: Counting objects: 100% (14/14), done.
remote: Compressing objects: 100% (11/11), done.
remote: Total 14 (delta 1), reused 13 (delta 0), pack-reused 0 (from 0)
Receiving objects: 100% (14/14), done.
Resolving deltas: 100% (1/1), done.
akosa@AKOSA:~/git_class$
```

PROBLEMS OUTPUT TERMINAL ... bash - groupTask + ▾ □ 🗑️ ... | {} ×

```
akosa@AKOSA:~/git_class/groupTask$ git clone https://github.com/Ayooluwabami/ProjectX
remote: Compressing objects: 100% (11/11), done.
remote: Total 14 (delta 1), reused 13 (delta 0), pack-reused 0 (from 0)
Receiving objects: 100% (14/14), done.
Resolving deltas: 100% (1/1), done.
akosa@AKOSA:~/git_class/groupTask$
```

```
● akosa@AKOSA:~/git_class/groupTask$ cd ProjectX
● akosa@AKOSA:~/git_class/groupTask/ProjectX$ git checkout -b feature/task-routeTable
Switched to a new branch 'feature/task-routeTable'
○ akosa@AKOSA:~/git_class/groupTask/ProjectX$
```

PROBLEMS

OUTPUT

TERMINAL

...

bash - ProjectX



...



● akosa@AKOSA:~/git\_class/groupTask/ProjectX\$ git status

On branch feature/task-routeTable

Changes to be committed:

(use "git restore --staged <file>..." to unstage)

new file: create-routeTable

○ akosa@AKOSA:~/git\_class/groupTask/ProjectX\$ git commit -m "created a routeTable"

PROBLEMS

OUTPUT

TERMINAL

...



bash - ProjectX



```
● akosa@AKOSA:~/git_class/groupTask/ProjectX$ git push origin feature/task-routeTable
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 4 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 473 bytes | 473.00 KiB/s, done.
```

PROBLEMS OUTPUT TERMINAL ... bash - ProjectX + v [ ] [ ] ... | [ ] X

```
akosa@AKOSA:~/git_class/groupTask/ProjectX$ git push origin feature/task-routeTable
Table
remote:
To https://github.com/Ayooluwabami/ProjectX
 * [new branch]      feature/task-routeTable -> feature/task-routeTable
akosa@AKOSA:~/git_class/groupTask/ProjectX$
```

github.com/Ayooluwabami/ProjectX/compare/feature/task-routeTable?expand=1

Markdown is supported

Paste, drop, or click to add files

Create pull request

Remember, contributions to this repository should follow our [GitHub Community Guidelines](#).

1 commit

1 file changed

1 contributor

Commits on Apr 11, 2026

created a routeTable

7b59018

<>

1

7b59018

<>

7b59018

<>

7b59018

<>

On April 24 we'll start using GitHub Copilot interaction data for AI model training unless you opt out. [Review this update](#) and manage your preferences in your [GitHub account settings](#).

Pull request creation failed. Validation failed: A pull request already exists for Ayooluwabami:feature/task-routeTable.

# Comparing changes

Choose two branches to see what's changed, or to start a new pull request. If you need to, you can also [compare across forks](#) or [learn more about diff comparisons](#).

base: main

←

compare: feature/task-routeTable

✓ Able to merge. These branches can be automatically merged.

created a routeTable #4

No description available

View pull request

1 commit

1 file changed

1 contributor

Commits on Apr 11, 2026

created a routeTable

samuelakosaonyejekwe committed 8 minutes ago

7b59818

Showing 1 changed file with 18 additions and 0 deletions.

Split Unified

18 create routeTable

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

+ #Creating Route Table

+ resource "aws\_route\_table" "route" {

+ vpc\_id = aws\_vpc.custom.id

+ +

+ route {

+ cidr\_block = "0.0.0.0/0"

+ gateway\_id = aws\_internet\_gateway.TGW.id

+ }

+ +

+ route {

+ ipv6\_cidr\_block = ":::/0"

+ gateway\_id = aws\_internet\_gateway.TGW.id

+ }

+ +

+ tags = {

+ Name = "Route to internet"

+ }

+ }

```
akosa@AKOSA:~/git_class/groupTask/ProjectX$ git push origin
feature/task-routeTable          origin/feature/task-create-subnet ...
ociation
remote:
To https://github.com/Ayooluwabami/ProjectX
* [new branch]      feature/task-rtAssociation -> feature/task-rtAssociation
akosa@AKOSA:~/git_class/groupTask/ProjectX$
```

● Awaiting approval

Conversation 0 Commits 3 Checks 0 Files changed 3

32 000000

Collaborator 22



장기영

2084478

18945424

At least 1 approving review is required by reviewers with write access.

At least 1 approving review is required by reviewers with write access.

Merge pull request  You can also merge this with the command line, [View command line instructions](#).

Still in progress? Convert to draft

Write Preview

Write

Add your comment here...

Markdown is supported

 Paste, drop, or click to add files

Remember: contributions to this repository should follow our [GitHub Community Guidelines](#).

**ProTip!** Add comments to specific lines under **Files changed**

### Reviewers

No reviews—at least 1 approving review is required.

Still in progress? Convert to draft

### Assignees

No one—assign yourself

Label:

None yet

## Projects

None yet

Milestone

No milestones

## Development

Successfully merging this pull request may close these issues.

None yet

### Notifications

Customize



1 participant

 Lock conversation

PROBLEMS

OUTPUT

TERMINAL

...



bash - ProjectX



akosa@AKOSA:~/git\_class/groupTask/ProjectX\$ git pull origin main

create mode 100644 load\_balancer.tf

● akosa@AKOSA:~/git\_class/groupTask/ProjectX\$ ls

create-routeTable internet\_gateway.tf rtAssociation.tf

create-subnets.tf load\_balancer.tf securityGroup

create-vpc.tf readme.md securityGroup.tf

○ akosa@AKOSA:~/git\_class/groupTask/ProjectX\$

| <div>🖥️ &gt; ... Ubuntu-24.04 &gt; home &gt; akosa &gt; git_class &gt; groupTask &gt; ProjectX &gt;</div>                  |  |                    |             |      |
|----------------------------------------------------------------------------------------------------------------------------|--|--------------------|-------------|------|
| <div><div><div>📁</div><div>📄</div><div>🔗</div><div>🗑️</div></div><div>↕️ Sort ▾</div><div>☰ View ▾</div><div>⋮</div></div> |  |                    |             |      |
| Name ^                                                                                                                     |  | Date modified      | Type        | Size |
| 📁 .git                                                                                                                     |  | 11/04/2026 3:56 pm | File folder |      |
| 📄 create-subnets                                                                                                           |  | 11/04/2026 3:56 pm | TF File     | 1 KB |
| 📄 create-vpc                                                                                                               |  | 11/04/2026 3:56 pm | TF File     | 1 KB |
| 📄 internet_gateway                                                                                                         |  | 11/04/2026 3:56 pm | TF File     | 1 KB |
| 📄 load_balancer                                                                                                            |  | 11/04/2026 3:56 pm | TF File     | 0 KB |
| 📄 rtAssociation                                                                                                            |  | 11/04/2026 3:21 pm | TF File     | 1 KB |
| 📄 securityGroup                                                                                                            |  | 11/04/2026 3:37 pm | TF File     | 1 KB |