## Hands on Journey from Git to GitHub

**P.S.** This document is part of the **FREE DevOps for Beginners Cohort** run by <u>Pravin Mishra</u>. You can start your DevOps journey for free from his <u>YouTube Playlist</u>.

## Overview

In this exercise, we will be completing multiple assignments to accomplish the following setup.

- CodeTrack— Initial Git Setup (Local Only)
- Tracking and Staging Changes in a CodeTrack Project in Git
- Branching Workflow Add & Verify a Contact Page in Git
- Setting Up GitHub for CodeTrack
- Collaborating on Mini-Finance with GitHub

## Prerequisites

- Git installed (Git Bash on Windows, Terminal on macOS/Linux).
  - Install the latest Git from the url <a href="https://git-scm.com/downloads">https://git-scm.com/downloads</a>
- Basic terminal navigation.
- Account in GitHub(Preferable)

## Instructions

### Assignment 5- CodeTrack— Initial Git Setup (Local Only)

#### Task 1 — Create a Local Project Directory

We will simulate the creation of a new **CodeTrack** project for new development.

Navigate to your preferred working location (Documents/Desktop/projects).

#### Windows (Command Prompt or PowerShell or Git Bash):

- mkdir CodeTrack
- cd CodeTrack

#### macOS/Linux (Terminal):

mkdir CodeTrack && cd CodeTrack

#### **Initialize Git:**

1. git init

#### **Expected:**

Initialized empty Git repository in .../CodeTrack/.git/

#### (Optional check)

1. Is -a # or: dir /a (Windows)

You should see a hidden .git folder.

Screenshot A: Initialized empty Git repository(git init) | | the .git folder listed with Is -a

```
MINGW64:/c/Users/alanm/Desktop/Adrina_c/CodeTrack

Adrina_c/
Alan 2025/

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop
$ cd Adrina_c/

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c
$ cd CodeTrack/

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack
$ git init
Initialized empty Git repository in C:/Users/alanm/Desktop/Adrina_c/CodeTrack/.g

it/

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ ls-a
bash: ls-a: command not found

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ ls -a
./ ../ .git/

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ | S | S - A |
./ ../ .git/

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ | S | S - A |
./ ../ .git/

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ | S | S - A |
./ ../ .git/

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ | S | S - A |
./ ../ .git/
```

#### Task 2 — Configure Git Locally for CodeTrack

Configure identity **only for this repo** (recommended for team/enterprise scenarios when identities differ by project).

- 1. git config --local user.name "Your Name"
- 2. git config --local user.email "your.email@example.com"

3. git config --local --list

#### **Expected:** output includes:

- 1. user.name=Your Name
- 2. user.email=your.email@example.com

Tip: If you'll push to GitHub and want to keep your email private, use GitHub's noreply email (e.g., 12345678+username@users.noreply.github.com).

**Screenshot B:** Set up your local Git identity(git config --local -list)

```
MINGW64:/c/Users/alanm/Desktop/Adrina c/CodeTrack
                                                                                                    X
  anm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
  ls -a
           .git/
 lanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master) git config --local user.name "Adrina"
alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ git config --local user.email "adcola13@gmail.com"
 llanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ git config --local --list
core.repositoryformatversion=0
core.filemode=false
core.bare=false
core.logallrefupdates=true
core.symlinks=false
core.ignorecase=true
user.name=Adrina
user.email=adcola13@gmail.com
alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
```

#### Task 3 — Configure Git Globally (Optional, Recommended)

Sets your default identity for all repos on this machine.

- 1. git config --global user.name "Your Name"
- 2. git config --global user.email "your.email@example.com"
- 3. git config --global --list

Expected: output lists your global user.name and user.email.

#### **Screenshot C:** Set up your global Git identity(git config --global -list)

```
MINGW64:/c/Users/alanm/Desktop/Adrina_c/CodeTrack — 

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ git config --global user.name "Adrina"

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ git config --global user.email "adcola13@gmail.com"

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ git config --global --list
user.name=Adrina
user.email=adcola13@gmail.com

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ |
```

#### When would you prefer to use local configuration instead of global configuration?

Global configuration is used to standardize your identity across all personal projects.

Local configuration is used to override your identity per project (e.g., work vs personal).

# Assignment 6- Tracking and Staging Changes in a CodeTrack Project in Git

#### Task 0 – Navigate to Project Folder

Since you have already set up the Project Folder in the last assignment, navigate to it:

- On Windows (Command Prompt):
  - cd path\to\CodeTrack
- On macOS/Linux (Terminal):
  - cd ~/path/to/CodeTrack

If you're unsure of your current directory, use the below command to check:

1. pwd

#### **Task 1: Create and Modify Files**

- 1. Create two new files inside the CodeTrack directory:
  - 1. touch index.html style.css

(For Windows users who don't have touch, use echo > index.html and echo > style.css.)

- 2. Verify that the files have been created by listing the directory contents:
  - 1. ls

**Expected Output:** You should see **index.html** and **style.css** in the file list.

- 3. Modify index.html and style.css using a text editor.
  - Go to GitHub and open the repository named "Week-2---Git-GitHub-Assignment".
  - Copy everything from the index.html file and the style.css file, then paste them into the same files in your own project.

```
MINGW64:/c/Users/alanm/Desktop/Adrina c/CodeTrack
                                                                                 X
 lanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
 pwd
c/Users/alanm/Desktop/Adrina_c/CodeTrack
llanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
 touch index.html style.css
llanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ ls
README.md index.html style.css
llanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ vim index.html
alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ vim style.css
alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
```

#### Task 2: Track the Files Using Git

- 1. Check the repository status:
  - 1. git status

#### **Expected Output:**

Git will list both index.html and style.css as untracked files.

**Screenshot A:** Output of git status before adding files (showing untracked).

```
alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)

$ git status
On branch master

No commits yet

Untracked files:

(use "git add <file>..." to include in what will be committed)

.gitignore

.gitignore

.README.md

index.html

style.css

nothing added to commit but untracked files present (use "git add" to track)

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
```

#### 2. Stage the files for tracking:

1. git add.

or stage them one by one:

- 2. git add index.html
- 3. git add style.css

#### 3. Verify that the files are now staged:

1. git status

#### **Expected Output:**

The files should now be **staged** and marked as **"Changes to be committed."** 

#### **Screenshot B:** Output of git status after adding files (showing staged).

```
MINGW64:/c/Users/alanm/Desktop/Adrina c/CodeTrack
                                                                                       X
 lanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master) git add index.html
warning: in the working copy of 'index.html', LF will be replaced by CRLF the next time
Git touches it
 lanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
 git add style.css
warning: in the working copy of 'style.css', LF will be replaced by CRLF the next time G
it touches it
 llanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ git status
On branch master
No commits yet
Changes to be committed:
(use "git rm --cached <file>..." to unstage)
        new file: index.html
new file: style.css
Untracked files:
  (use "git add <file>..." to include in what will be committed)
 lanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
```

#### **Task 3: Commit the Changes**

- 1. Commit the staged files with a meaningful message:
  - git commit -m "Initial commit Added index.html and style.css"

#### **Expected Output:**

- 2. [master (root-commit) 1a2b3c4] Initial commit Added index.html and style.css
- 3. 2 files changed, 10 insertions(+), 0 deletions(-)

#### 2. Verify the commit history:

1. git log --oneline

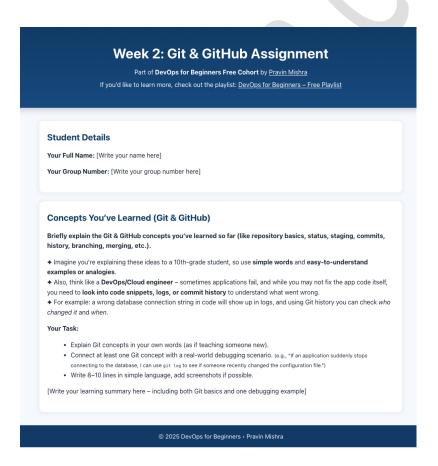
#### **Expected Output:**

2. 1a2b3c4 Initial commit - Added index.html and style.css

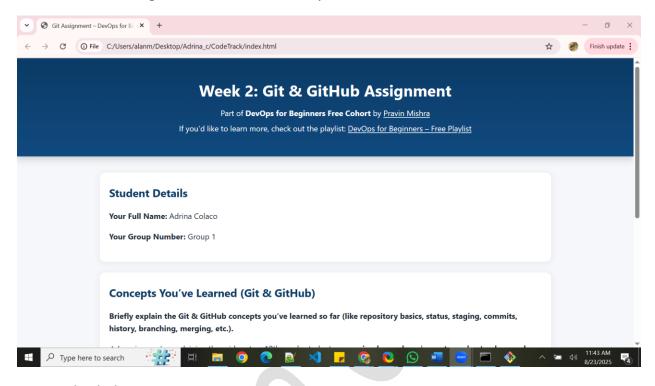
#### Screenshot C: Output of git log -- oneline after the first commit.

#### Task 4: Modify a File and Commit Again

- 1. Next, open the index.html file in your favorite browser. (Tip: right-click the file → choose **Open With Browser**).
- 2. Read the instructions written inside index.html and follow them step by step to complete the assignment. It must be like below:



3. After finishing, move on to the next steps.



- 4. Check the repository status:
  - 1. git status

Git will show index.html as modified.

- 5. Stage the modified file:
  - 1. git add index.html
- 6. Commit the changes with a message:
  - 1. git commit -m "Meaningful message"
- 7. Verify commit history again:
  - 1. git log --oneline

#### **Expected Output:**

- 2. 3d4e5f6 Updated heading in index.html
- 3. 1a2b3c4 Initial commit Added index.html and style.css

**Screenshot D:** Output of git log --oneline after the second commit.

```
MINGW64:/c/Users/alanm/Desktop/Adrina_c/CodeTrack
                                                                                              X
           KTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ git status
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
(use "git restore <file>..." to discard changes in working directory)
Untracked files:
  (use "git add <file>..." to include in what will be committed)
no changes added to commit (use "git add" and/or "git commit -a")
 alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ git add index.html
warning: in the working copy of 'index.html', LF will be replaced by CRLF the next time
Git touches it
 alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
 alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ git commit -m "23-Aug-2025: Updated student details in index.html" [master 2500e9c] 23-Aug-2025: Updated student details in index.html 1 file changed, 2 insertions(+), 2 deletions(-)
 alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ git log --oneline
 2500e9c (HEAD -> master) 23-Aug-2025: Updated student details in index.html
1870fd9 Initial commit - Added index.html and style.css
 alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
```

To see all details of the commits use below command

git log

```
MINGW64:/c/Users/alanm/Desktop/Adrina_c/CodeTrack — 

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ git log
commit 2500e9c87480bfb7356ad22cfc27b7ef6aef1f1c (HEAD -> master)
Author: Adrina <adcola13@gmail.com>
Date: Sat Aug 23 11:53:42 2025 +0530

23-Aug-2025: Updated student details in index.html

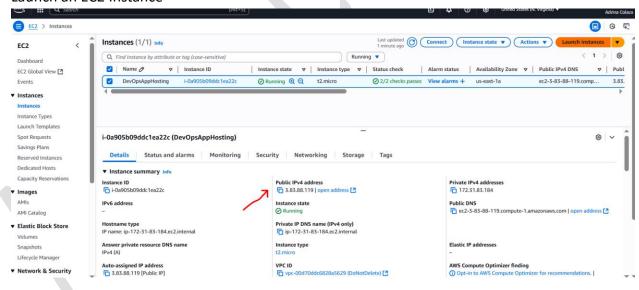
commit 1870fd98da2b78aec7f8f2a6be13264c0e06a0ba
Author: Adrina <adcola13@gmail.com>
Date: Sat Aug 23 11:27:48 2025 +0530

Initial commit - Added index.html and style.css

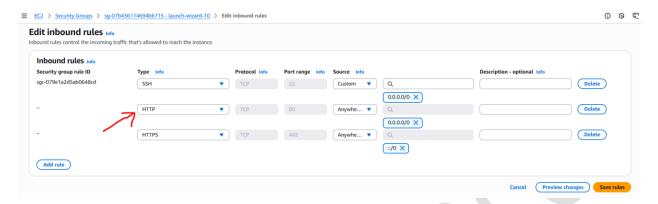
alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ |
```

#### Task 5: Deploy this application on EC2 Instance (as done in the Linux section)

1. Launch an EC2 Instance



## Make sure to add HTTP to the inbound rules of the respective security group while creating the instance.



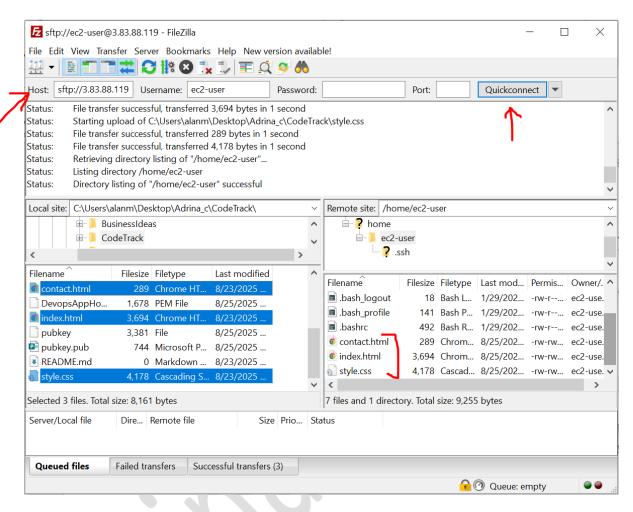
- Connect to Your EC2 Instance
  - Open a terminal on your local machine.
  - Use SSH to connect:
    - 1. ssh -i your-key.pem ec2-user@<EC2-Public-IP>

```
lanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ 1s
23_8
             DevopsAppHosting.pem
                                          contact.html
                                                             mini_finance/
                                                                                 pubkey.pub
            README.md
23_8.pub
                                          index.html
                                                             pubkey
                                                                                 style.css
 llanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
  chmod 400 "DevopsAppHosting.pem"
alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ ssh -i "DevopsAppHosting.pem" ec2-user@ec2-3-83-88-119.compute-1.amazonaws.com
The authenticity of host 'ec2-3-83-88-119.compute-1.amazonaws.com (3.83.88.119)' can't b
e established.
ED25519 key fingerprint is SHA256:g7UoQAK62Grd9bLc7knKAPekUotjFJXJJYh4Mlb02Bc.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-3-83-88-119.compute-1.amazonaws.com' (ED25519) to the li
st of known hosts.
          ####
                            Amazon Linux 2023
           #####
                           https://aws.amazon.com/linux/amazon-linux-2023
[ec2-user@ip-172-31-83-184
```

- 3. Update Packages (as done in Linux section)
- 4. Install Nginx (as done in Linux section)
- 5. Start Nginx Service

```
| Treating | Treating
```

- 6. Deploy Your Application (same as Linux section)
  - Copy your project files (index.html, style.css, etc.) into Nginx's web directory:
    - 1. Use FileZilla to move the project located on the local machine to EC2(MobaXterm can also be used)
    - 2. Go to Edit  $\rightarrow$  Settings  $\rightarrow$  Under Connection  $\rightarrow$  SFTP  $\rightarrow$  add the PEM key that downloaded while creating your EC2 instance.
    - 3. Quick Connect to the server using sftp and move the files from local machine to EC2 server.

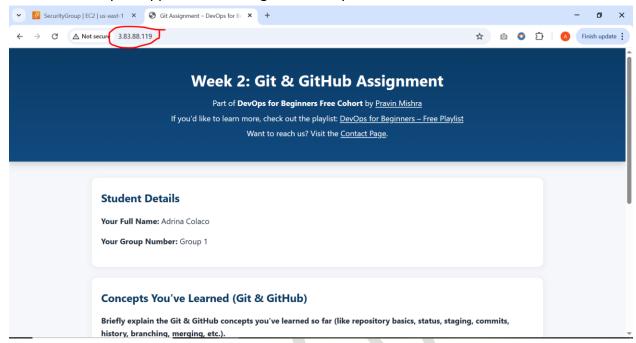


- 4. Copy the required web files to the NGINC web directory.
  - sudo cp /home/ec2-user/index.html /usr/share/nginx/html/index.html
  - sudo cp /home/ec2-user/contact.html /usr/share/nginx/html/contact.html
  - 3. sudo cp /home/ec2-user/style.css /usr/share/nginx/html/style.css

```
[ec2-user@ip-172-31-83-184 htm]]$ sudo cp /home/ec2-user/index.html /usr/share/nginx/html/index.html
[ec2-user@ip-172-31-83-184 htm]]$ sudo cp /home/ec2-user/contact.html /usr/share/nginx/html/contact.html
[ec2-user@ip-172-31-83-184 htm]]$ sudo cp /home/ec2-user/style.css /usr/share/nginx/html/style.css
[ec2-user@ip-172-31-83-184 htm]]$ ls
404.html 50x.html contact.html icons index.html nginx-logo.png poweredby.png style.css
[ec2-user@ip-172-31-83-184 htm]]$ |
```

- 7. Access the Application
  - Open a browser and go to:
    - 1. http://<EC2-Public-IP>

You should see your application running successfully.



#### Text File (git\_tracking\_summary.txt):

- Listing all Git commands used so far with a short explanation for each.



# Assignment 7- Branching Workflow — Add & Verify a Contact Page in Git

#### Task 0 — Start from your existing repo

Navigate your existing CodeTrack project from the last assignment:

- 1. cd path/to/CodeTrack
- 2. git status
- 3. git branch

Ensure you're on main (or master).

#### Task 1 — Create and switch to a feature branch

- 1. git checkout -b feature/contact-page
- 2. git branch

Expected: \* feature/contact-page.

**Screenshot A:** git branch output right after creating feature/contact-page (shows \* feature/contact-page).

```
alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)

$ git checkout -b feature/contact-page
Switched to a new branch 'feature/contact-page'

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (feature/contact-page)

$ git branch

* feature/contact-page
    master

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (feature/contact-page)

$ |
```

#### Task 2 — Add contact.html (in the branch)

Create the file and add content:

- 1. # macOS/Linux
- 2. touch contact.html
- 3. # Windows PowerShell alternative:
- 4. # ni contact.html

#### contact.html

```
Email: mail@pravinmishra.in
Website: hhttps://thecloudadvisory.com/
</body>
</html>
```

#### Stage & commit:

- 1. git add contact.html
- git commit -m "feat(contact): add contact page with email and phone"

```
MINGW64:/c/Users/alanm/Desktop/Adrina c/CodeTrack
                                                                                  X
 touch contact.html
 .lanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (feature/contact-page)
$ vim contact.html
[1]+ Stopped
                              vim contact.html
alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (feature/contact-page)
$ vim contact.html
alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (feature/contact-page)
$ git add contact.html
warning: in the working copy of 'contact.html', LF will be replaced by CRLF the next tim
e Git touches it
alanm@DESKTOP-TSHFOQK MINGW64 <mark>~/Desktop/Adrina_c/CodeTrack (feature/contact-page)</mark>
$ git commit -m "Feature(Contact): Add Contact page with email Id and Phone"
[feature/contact-page e3890e3] Feature(Contact): Add Contact page with email Id and Phon
 1 file changed, 14 insertions(+)
 create mode 100644 contact.html
```

#### Task 3 — Add a link to the contact page in index.html (still on the branch)

Insert this **new paragraph** directly **below** the existing playlist paragraph (the one with class playlist-line):

```
X
 MINGW64:/c/Users/alanm/Desktop/Adrina c/CodeTrack
               ass="site-header
              class="header-inner">
<h1>Week 2: Git & GitHub Assignment</h1>
class="cohort-line">
                  Part of <strong>DevOps for Beginners Free Cohort</strong> by
                  <a href="https://www.linkedin.com/in/pravin-mishra-aws-trainer/" target=
 _blank">Pravin Mishra</a>
                 class="playlist-line">
                    you of Tike to learn more, check out the playlist:
href="https://www.youtube.com/playlist?list=PLVOdqXbCs7bX88JeUZmK4fKT
"_blank">
                  If you'd like to learn more, check out the playlist:
q2hJ5VS89" target=
                      DevOps for Beginners - Free Playlist</a>
    <main class="container">
index.html [dos] (13:30 23/08/2025)
                                                                                          27,4 18%
 'index.html" [dos] 82L, 3694B
```

Save, then:

- 1. git add index.html
- 2. git commit -m "feat(nav): add Contact Page link to index.html"

#### Task 4 — Verify isolation (switch back to main)

- 1. git checkout main
- 2. Is

#### **Screenshot B.** git branch output after switching back to main.

- contact.html should not be in main yet.
- Open index.html in your browser → the Contact Page link should not exist on main yet.

(This proves your changes live only on the branch.)

#### Task 5 — Merge the feature branch into main

1. git merge feature/contact-page

Now verify:

- Is → contact.html is present.
- Open index.html in your browser → you should see the **Contact Page** link.
- Click the link → it should open contact.html.

```
MINGW64:/c/Users/alanm/Desktop/Adrina_c/CodeTrack — 

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)

$ git merge feature/contact-page
Updating 2500e9c..ba67ae5
Fast-forward
contact.html | 14 +++++++++++++
index.html | 4 +++++
2 files changed, 18 insertions(+)
create mode 100644 contact.html

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)

$ ls
README.md contact.html index.html style.css

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)

$ |
```

#### Task 6 — Inspect history (nice graph)

git log --oneline --graph --decorate --all
 (Optional cleanup)

1. git branch -d feature/contact-page

**Screenshot C.** git log --oneline while on feature/contact-page showing the commits:

feat(contact): add contact page... feat(nav): add Contact Page link...

```
MINGW64:/c/Users/alanm/Desktop/Adrina_c/CodeTrack — 

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (feature/contact-page)

§ git log --oneline
ba67ae5 (HEAD -> feature/contact-page, master) feature(Nav): add Contact Page link to in
dex.html
e3890e3 Feature(Contact): Add Contact page with email Id and Phone
2500e9c 23-Aug-2025: Updated student details in index.html
1870fd9 Initial commit - Added index.html and style.css

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (feature/contact-page)

$ |
```

Screenshot D. git log --oneline --graph --decorate --all after merging into main.

```
MINGW64:/c/Users/alanm/Desktop/Adrina_c/CodeTrack — 

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)

$ git log --oneline --graph --decorate --all

* ba67ae5 (HEAD -> master, feature/contact-page) feature(Nav): add Contact Page link to index.html

* e3890e3 Feature(Contact): Add Contact page with email Id and Phone

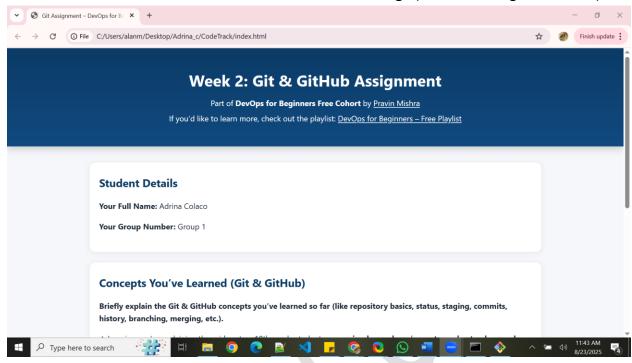
* 2500e9c 23-Aug-2025: Updated student details in index.html

* 1870fd9 Initial commit - Added index.html and style.css

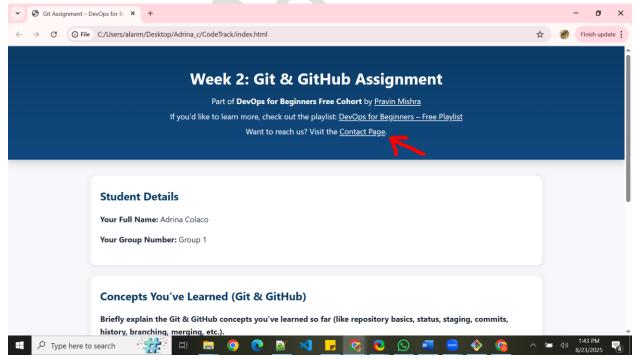
alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)

$ |
```

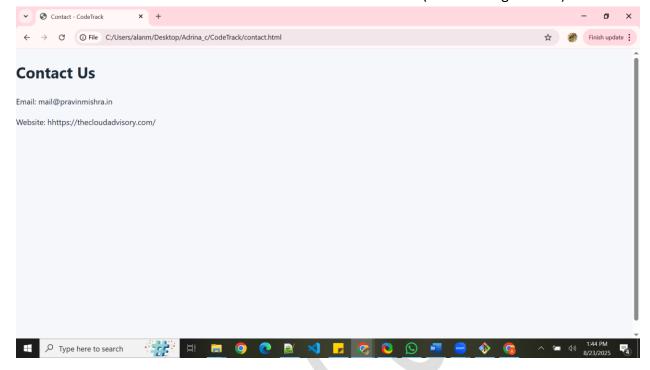
Screenshot E: Browser screenshot of index.html before merge (no Contact Page link visible).



**Screenshot F:** Browser screenshot of index.html **after merge** showing the new **Contact Page** link.



Screenshot G: Browser screenshot of the loaded contact.html (after clicking the link).



#### Explain why the link wasn't visible before the merge and why it appears after.

The changed code from the Branch was not yet present in the Main(master) branch before Git Merge.

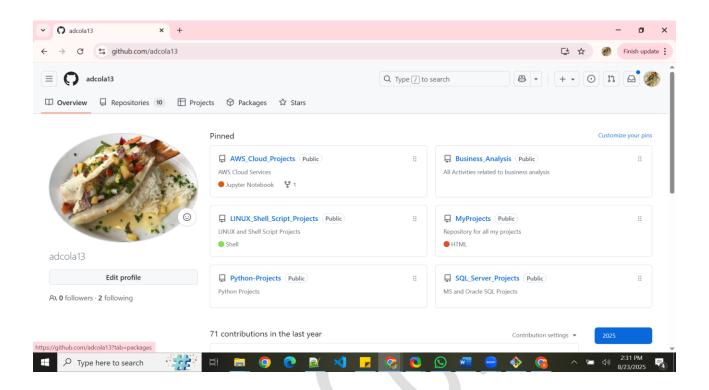
Once Git merge command was run, the code linking to Contact.html file moved to the index.html file present in main(master) branch as well.

## Assignment 8 - Setting Up GitHub for CodeTrack

#### Task 1 — Create a GitHub Account

- 1. Go to GitHub and click Sign Up.
- 2. Enter your email, password, and username.
- 3. Complete verification and click Create Account.
- 4. Once logged in, navigate to your GitHub Dashboard.

**Expected Outcome:** You now have a GitHub account and access to the dashboard.



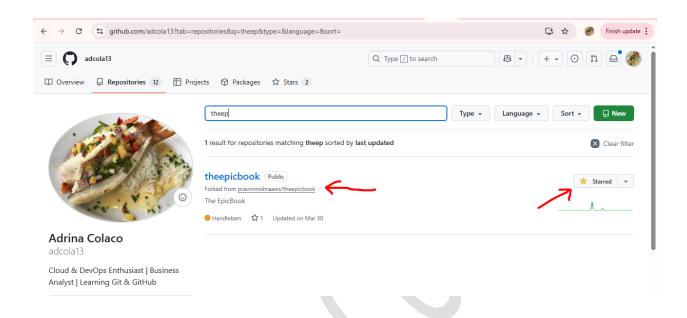
#### Task 2 — Explore GitHub Features

- 1. From the top menu, click Explore.
- 2. Browse Trending Repositories to see what's popular.
- 3. Use the search bar to find an open-source project (e.g., type theepicbook).
- 4. Click the 🗙 **Star** button on a repository that interests you.
- 5. Click **Fork** on any public repository to create your own copy.

**Expected Outcome:** You have explored GitHub, starred at least one project, and forked one repository.

Screenshot A: The repository you starred.

Screenshot B: The repository you forked.

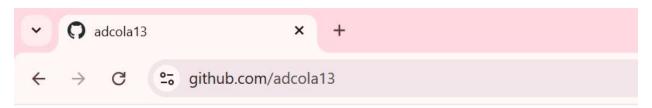


#### **Step 3 — Update Your GitHub Profile**

- 1. Click your profile picture (top-right) → Your Profile.
- 2. Click **Edit Profile** and:
  - Add a short bio (e.g., "Cloud & DevOps Enthusiast | Learning Git & GitHub").
  - Optionally add location, company/school, and social links.
  - Upload a profile picture (optional but recommended).
- 3. Save changes.

**Expected Outcome:** Your GitHub profile looks personalized and professional.

Screenshot C: Your updated GitHub profile page showing your new bio.





## Adrina Colaco

adcola13

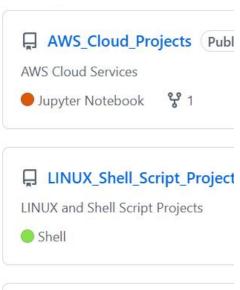
Cloud & DevOps Enthusiast | Business Analyst | Learning Git & GitHub

### Edit profile

A 0 followers · 2 following

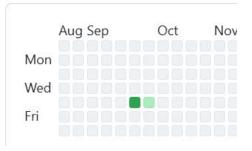
- ☑ adcola13@gmail.com
- in in/adrina-colaco
- A https://medium.com/@adcola13

#### Pinned





## 72 contributions in the last ye



#### Why is it important to have a professional GitHub profile as a developer?

A polished GitHub profile serves as a **live portfolio**, showcasing your real code, collaboration history, and growth trajectory—making it a powerful tool for credibility, visibility, and hiring potential.

#### **Key Takeaways:**

- Real code > resume claims: Viewers can assess your actual work and problem-solving style.
- Reflects growth & commitment: A history of contributions signals continuous learning.
- **Trusted evidence**: For those with limited formal experience, your GitHub can be the only proof you can code.

## Assignment 9- Collaborating on Mini-Finance with GitHub

#### Task 0 — Access Existing Mini-Finance Code

The upstream repository exists at:

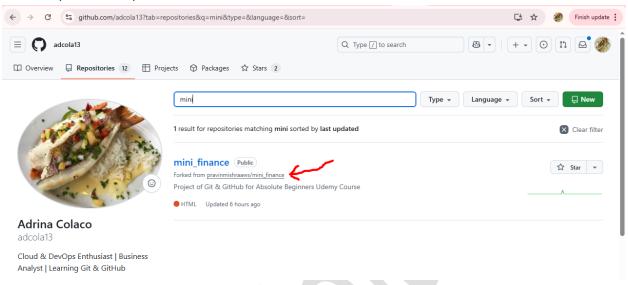
1. https://github.com/pravinmishraaws/mini finance

We'll fork this repository to your GitHub account, clone, and work with it.

#### Task 1 — Fork & Authenticate

1. Login to GitHub and **Fork** the mini\_finance repository into your account.

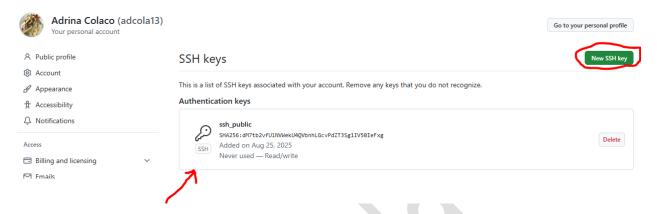
# **Screenshot A:** The GitHub page showing your **forked mini\_finance repo** under your account (URL visible).



- 2. In your terminal, configure authentication if not already set:
  - SSH (recommended):
    - 1. Generate an SSH Key (if not already created):
      - 1. ssh-keygen -t rsa -b 4096 -C "your-email@example.com"
      - Press Enter to save the key in the default location (~/.ssh/id rsa).
    - 2. Add the SSH Key to GitHub:
      - 1. Copy the SSH key:
      - 2. cat ~/.ssh/id\_rsa.pub

```
alammoDDESKTOP-TSHFOOK MINOW64 -/Desktop/Adrina_c/CodeTrack (master)
$ ssh-keygen -t rsa -b 4096 -c"adcoal130gmail.com"
Generating bublic/private rsa key pain;
Genera
```

- Go to GitHub → Settings → SSH and GPG keys → Click New SSH
   Key
- 4. Paste the key and save



#### 3. Test the SSH Connection:

- 1. ssh -T git@github.com
- 2. If successful, you should see a message like:
- 3. Hi yourusername! You've successfully authenticated, but GitHub does not provide shell access.

```
MINGW64:/c/Users/alanm/Desktop/Adrina_c/CodeTrack — 

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ ssh -T git@github.com
Hi adcola13! You've successfully authenticated, but GitHub does not provide shell access

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ |
```

#### 4. Use SSH for Git Commands:

When cloning a repository, use the SSH URL instead of HTTPS:

- 5. git clone git@github.com:yourusername/repository.git
- 6. git config --global url. "git@github.com:".insteadOf "https://github.com/"

#### OR HTTPS:

1. git config --global credential.helper cache

Test with:

- 2. git ls-remote git@github.com:yourusername/mini finance.git
- 3. **Expected outcome:** You have forked the repo and your terminal is authenticated for Git ops.

```
MINGW64:/c/Users/alanm/Desktop/Adrina_c/CodeTrack
alann@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ git ls-remote git@github.com:adcola13/mini_finance.git
a8109982d5b97731bd51f52790c3850bf588de91 HEAD
a8109982d5b97731bd51f52790c3850bf588de91 refs/heads/main
alann@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ |
```

#### Task 2 — Clone Your Fork Locally

git clone git@github.com:yourusername/mini\_finance.git

```
MINGW64:/c/Users/alanm/Desktop/Adrina_c/CodeTrack — 

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$ git clone git@github.com:adcola13/mini_finance.git
Cloning into 'mini_finance'...
remote: Enumerating objects: 61, done.
remote: Counting objects: 100% (61/61), done.
remote: Compressing objects: 100% (56/56), done.
remote: Total 61 (delta 16), reused 44 (delta 5), pack-reused 0 (from 0)
Receiving objects: 100% (61/61), 629.33 KiB | 811.00 KiB/s, done.
Resolving deltas: 100% (16/16), done.

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack (master)
$
```

- 2. cd mini finance
- 3. git remote -v
- origin should point to your fork.

```
MINGW64:/c/Users/alanm/Desktop/Adrina_c/CodeTrack/mini_finance 

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack/mini_finance (main)

$ git remote -v
origin git@github.com:adcola13/mini_finance.git (fetch)
origin git@github.com:adcola13/mini_finance.git (push)

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack/mini_finance (main)

$ |
```

- 1. Add an upstream remote to the original repo:
  - 1. git remote add upstream https://github.com/pravinmishraaws/mini finance.git

**Expected outcome:** Local clone with origin (your fork) and upstream properly set.

**Screenshot B:** Terminal output of git remote -v after cloning, showing both origin and upstream.

```
MINGW64:/c/Users/alanm/Desktop/Adrina_c/CodeTrack/mini_finance 

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack/mini_finance (main)
$ git remote add upstream https://github.com/pravinmishraaws/mini_finance.git

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack/mini_finance (main)
$ git remote -v
origin git@github.com:adcola13/mini_finance.git (fetch)
origin git@github.com:adcola13/mini_finance.git (push)
upstream https://github.com/pravinmishraaws/mini_finance.git (fetch)
upstream https://github.com/pravinmishraaws/mini_finance.git (push)

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack/mini_finance (main)
$ |
```

#### What is the purpose of the upstream remote in your workflow?

The **upstream remote** serves as an anchor to the original repository, enabling you to **fetch** the latest changes, keep your fork in sync, and make your contributions clean and up-to-date. It's essential for effective collaboration, especially in open-source or teambased workflows.

#### Task 3 — Create a Feature Branch & Make a Change

- 2. Create a new branch:
  - 1. git checkout -b feature-readme-update

```
MINGW64:/c/Users/alanm/Desktop/Adrina c/CodeTrack/mini finance
                                                                                           X
 lanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack/mini_finance (main)
$ git checkout -b feature-readme-update
Switched to a new branch 'feature-readme-update'
lanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack/mini_finance (feature-readme-
pdate)
 ٦s
 ABOUT THIS TEMPLATE.txt'
                                                     index.html
                                                                      setting.html
                                fonts/
README.md
                                                                      transation-detail.html
                                help-center.html
                                                     js/
                                                     profile.html
 css/
                                images/
                                                                      wallet.html
```

3. Open README.md and add a new section:

**You may write:** "This project demonstrates Git operations like clone, pull, push, PR—a hands-on Mini-Finance tool."

```
MINGW64:/c/Users/alanm/Desktop/Adrina_c/CodeTrack/mini_finance 

## ** [Mini Finance Project] (https://www.tooplate.com/live/2135_mini_finance) - CloudAdvi sory Onboarding Task**

This project demonstrates Git operations like clone, pull, push, PR-a hands-on Mini-Finance tool.
-- Adrina Colaco|

This project is part of My Udemy Course [Git & GitHub for Absolute Beginners with Project] (https://www.udemy.com/course/git-and-github-for-beginners-start-coding-collaboratively/?referralCode=2D07E24EAB31E15FC5A4)

README.md[+] [dos] (12:18 25/08/2025)
-- INSERT --
```

- 4. Save, then stage and commit:
  - 1. git add README.md
  - 2. git commit -m "docs: update README with assignment note"

**Screenshot C:** Terminal showing your commit on feature-readme-update. (e.g., git log -- oneline -n 3)

```
MINGW64:/c/Users/alanm/Desktop/Adrina_c/CodeTrack/mini_finance 

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack/mini_finance (feature-readme-update)
$ git add README.md

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack/mini_finance (feature-readme-update)
$ git commit -m "docs: updated README file with an assignment note"
[feature-readme-update f603328] docs: updated README file with an assignment note
1 file changed, 3 insertions(+)

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack/mini_finance (feature-readme-update)
$ |
```

#### Task 4 — Pull From Upstream & Push to Origin

- 1. Sync changes from upstream's main:
  - 1. git fetch upstream

```
MINGW64:/c/Users/alanm/Desktop/Adrina_c/CodeTrack/mini_finance — 

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack/mini_finance (feature-readme-update)
$ git fetch upstream
From https://github.com/pravinmishraaws/mini_finance
* [new branch] main -> upstream/main

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack/mini_finance (feature-readme-update)
$ |
```

- 2. git checkout main
- 3. git merge upstream/main

```
MINGW64:/c/Users/alanm/Desktop/Adrina_c/CodeTrack/mini_finance — X

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack/mini_finance (feature-readme-update)

$ git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack/mini_finance (main)

$ git merge upstream/main
Already up to date.

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack/mini_finance (main)

$ |
```

- 2. Switch back to your feature branch:
  - 1. git checkout feature-readme-update
  - 2. git rebase main # optional but recommended

```
MINGW64:/c/Users/alanm/Desktop/Adrina_c/CodeTrack/mini_finance 

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack/mini_finance (main)

$ git checkout feature-readme-update
Switched to branch 'feature-readme-update'

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack/mini_finance (feature-readme-update)

$ git rebase main
Current branch feature-readme-update is up to date.

alanm@DESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack/mini_finance (feature-readme-update)

$ |
```

#### Why did you rebase or merge from upstream/main before pushing?

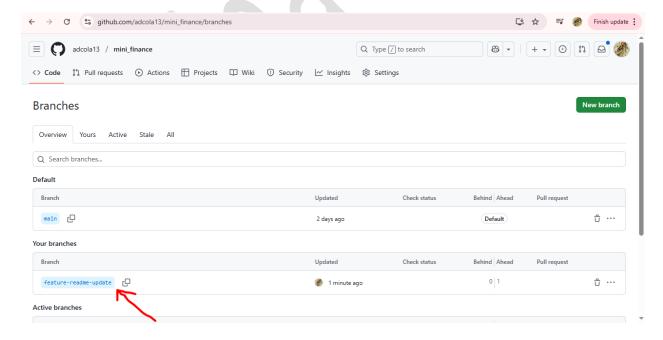
Rebasing or merging from upstream/main (or upstream/master) before pushing is primarily about keeping your work in sync with the latest changes in the main project and ensuring your commits integrate cleanly.

- 3. Push your branch to your fork:
  - 1. git push -u origin feature-readme-update

**Screenshot D:** Confirmation of git push -u origin feature-readme-update.

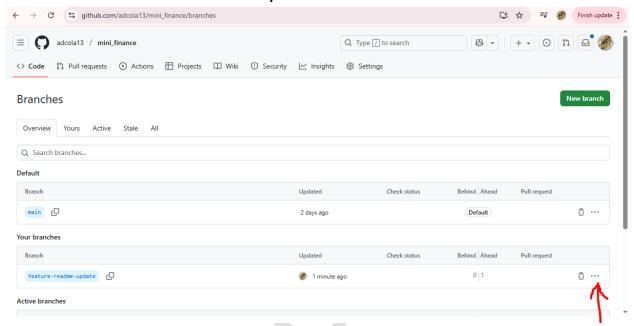
```
NINGW64:/c/Users/alanm/Desktop/Adrina_c/CodeTrack/mini_finance
                                                                                                                  X
          ESKTOP-TSHFOQK MINGW64 ~/Desktop/Adrina_c/CodeTrack/mini_finance (feature-readme
update)
$ git push -u origin feature-readme-update
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 4 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 415 bytes | 207.00 KiB/s, done.
Total 3 (delta 2), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
remote:
remote: Create a pull request for 'feature-readme-update' on GitHub by visiting: remote: https://github.com/adcola13/mini_finance/pull/new/feature-readme-update
remote:
To github.com:adcola13/mini_finance.git
* [new branch] feature-readme-update -> feature-readme-update branch 'feature-readme-update' set up to track 'origin/feature-readme-update'.
 update)
```

**Expected outcome:** Your feature branch is available on GitHub under your fork.



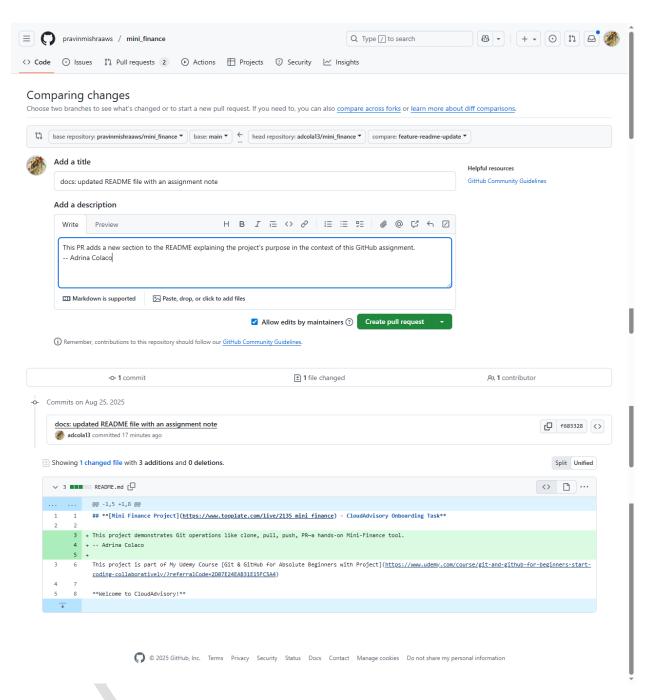
#### Task 5 — Create a Pull Request

- 1. Go to your fork on GitHub.
- 2. Click on 3 dots and then on New Pull Request.



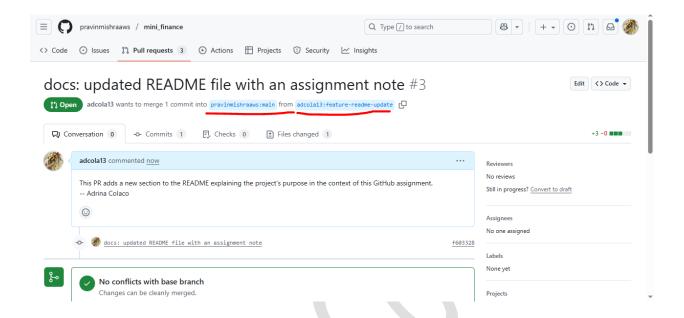
- 3. Make sure it's targeting pravinmishraaws/mini\_finance:main from your feature-readme-update branch.
  - 1. Title: "docs: update README with assignment note"
  - 2. In the body, add a short description:

"This PR adds a new section to the README explaining the project's purpose in the context of this GitHub assignment."



4. Submit the Pull Request.

#### Screenshot E: The GitHub UI showing open Pull Request (title and description visible).



#### Why is creating a Pull Request an important step in team collaboration?

Pull Requests are essential in modern Git workflows because they:

- Ensure high code quality via structured review
- Enable clear communication and knowledge sharing
- Provide transparent documentation
- Support automated checks and mitigate risks
- Streamline collaboration at scale—especially in distributed environments

The End