# *LAB 02*

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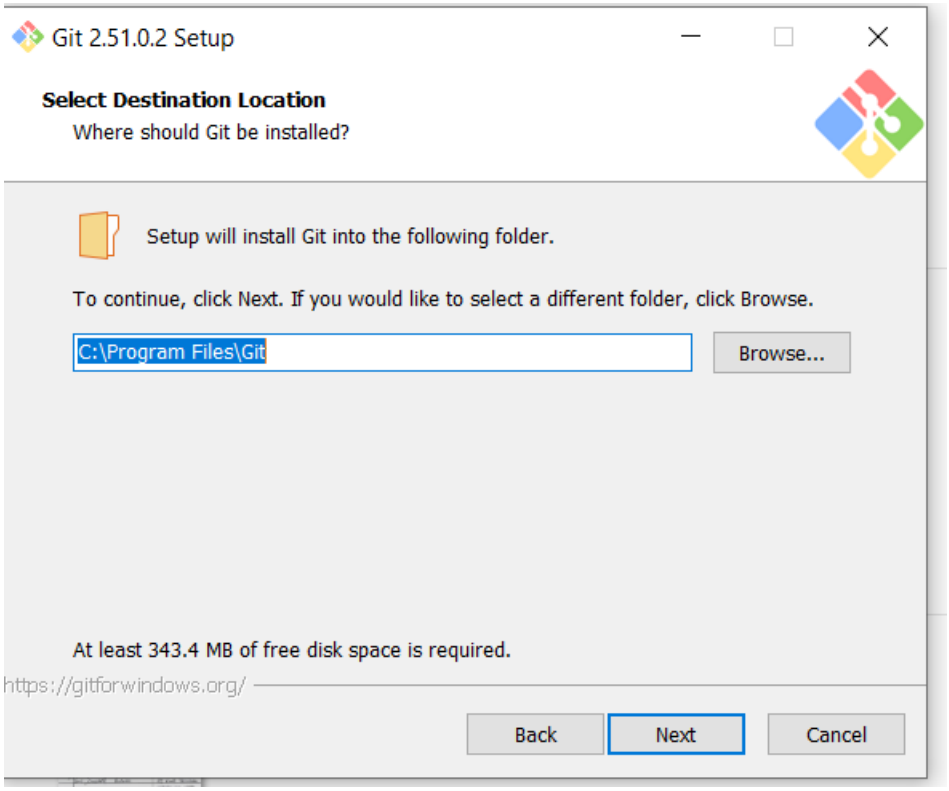
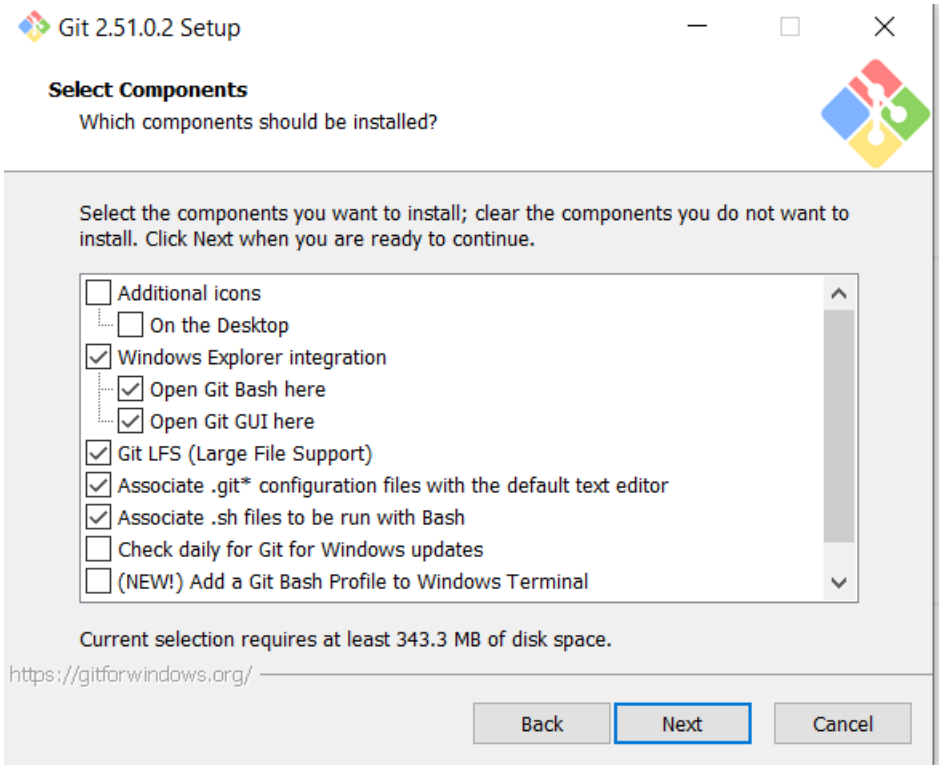
**REGISTRATION #: 2023-BSE-061**

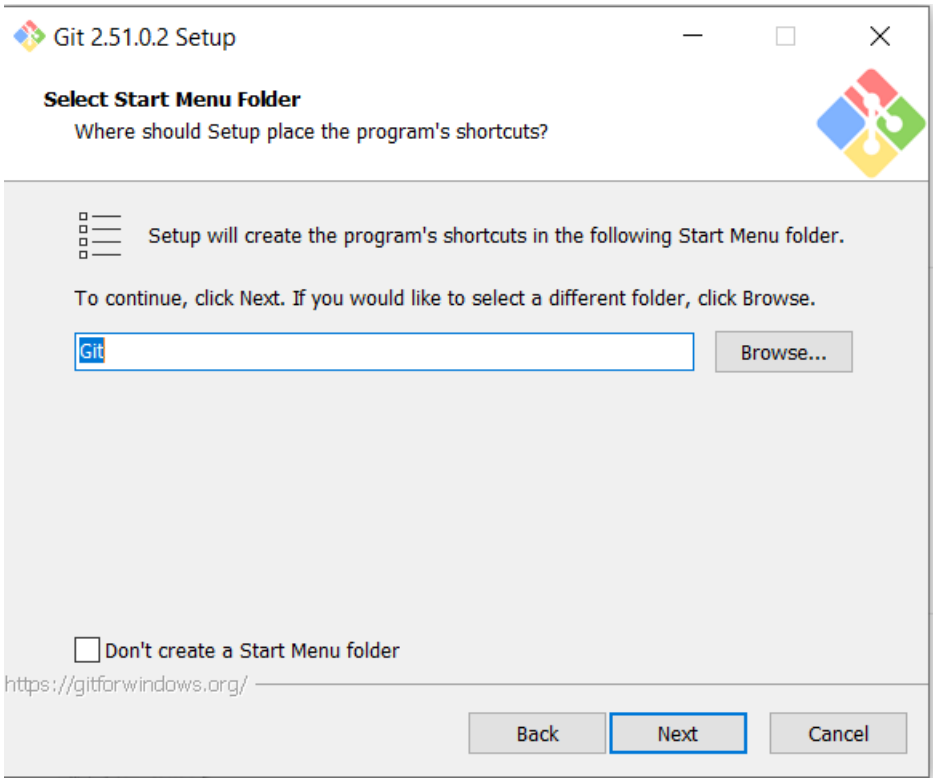
**DEPARTMENT: BSE(5B)**

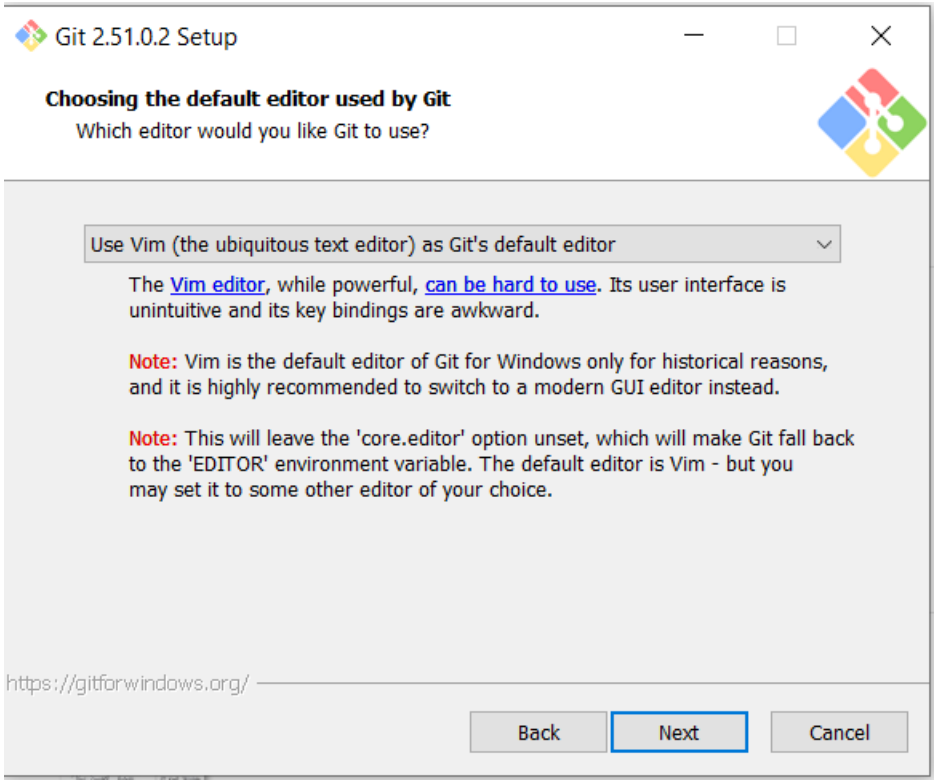
## LAB TASK

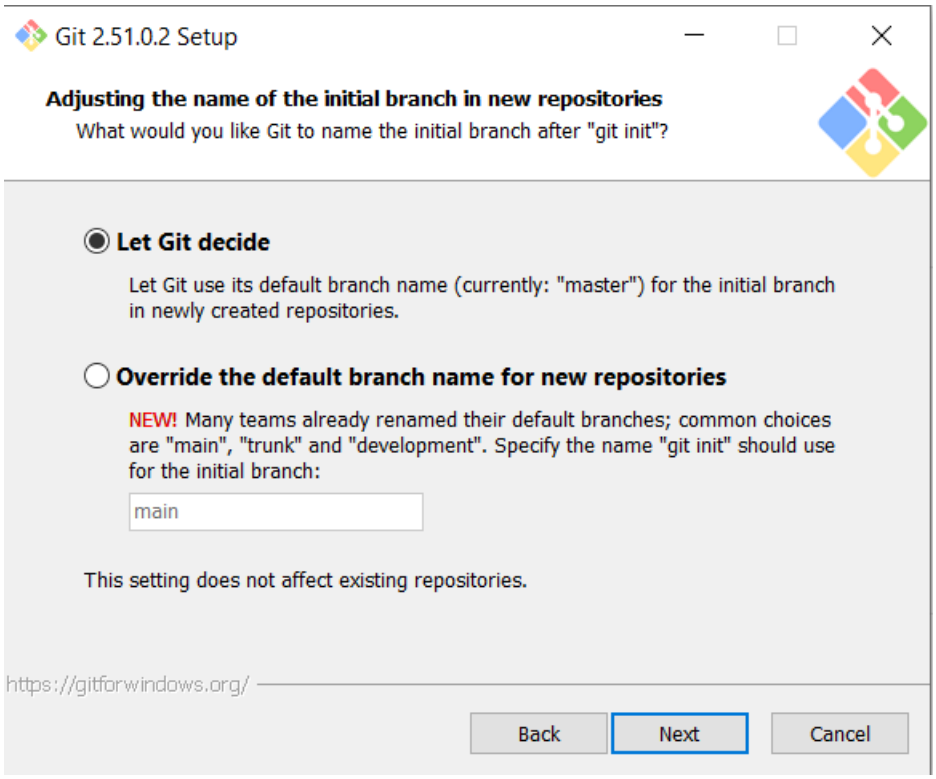
## Git Installation:

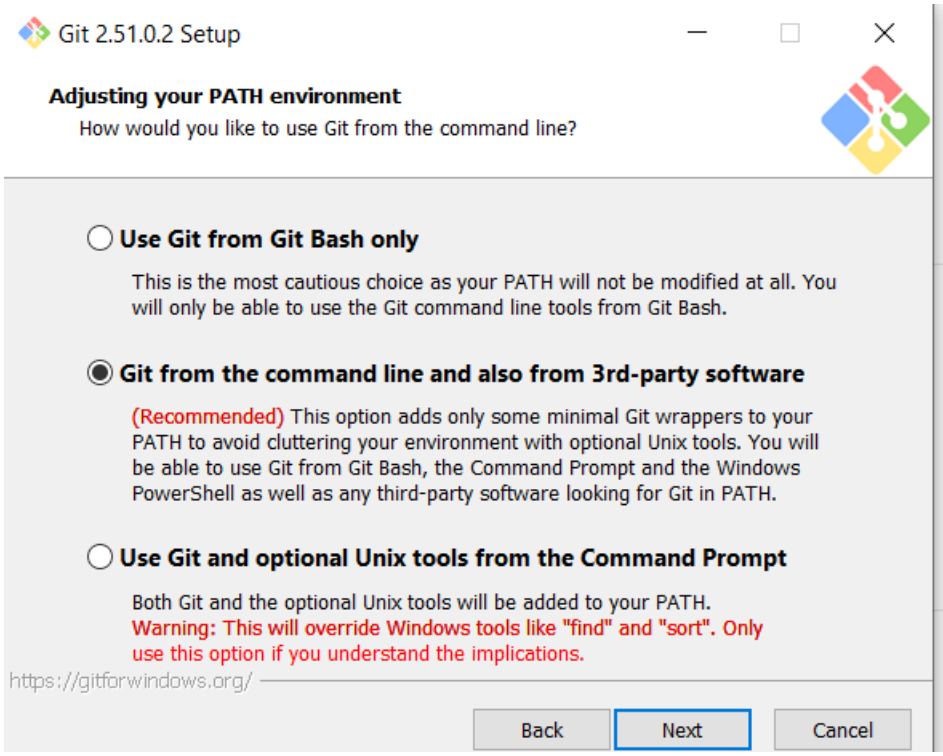


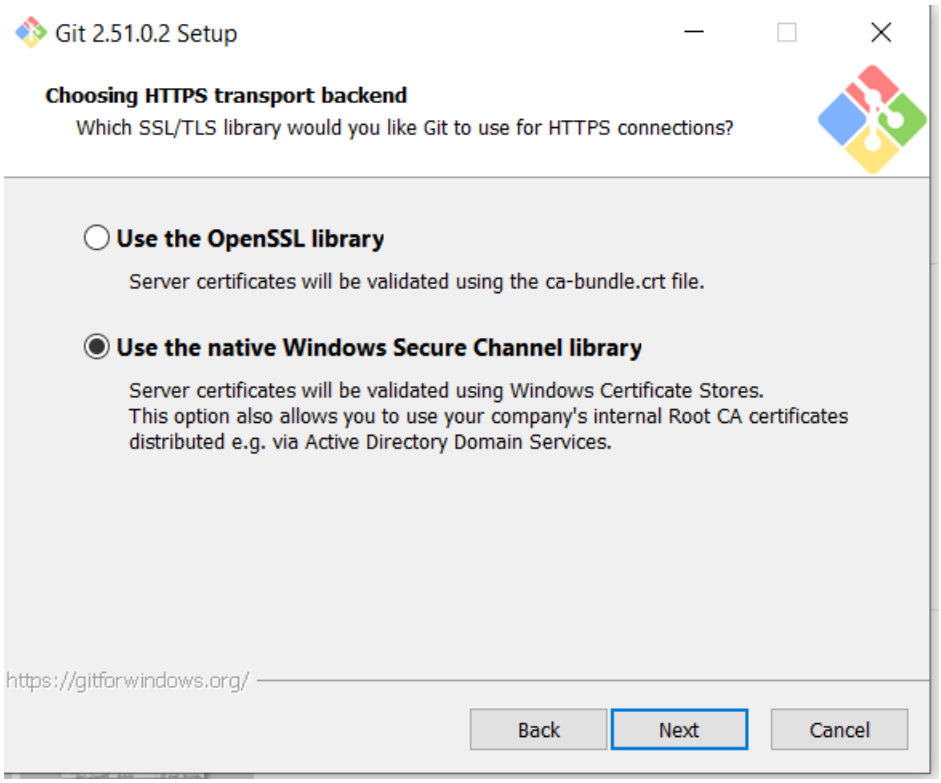

Git 2.51.0.2 Setup
Select Components
Which components should be installed?
Select the components you want to install; clear the components you do not want to install. Click Next when you are ready to continue.
Additional icons
On the Desktop
Windows Explorer integration
Open Git Bash here
Open Git GUI here
Git LFS (Large File Support)
Associate .git* configuration files with the default text editor
Associate .sh files to be run with Bash
Check daily for Git for Windows updates
(NEW!) Add a Git Bash Profile to Windows Terminal
Current selection requires at least 343.3 MB of disk space.
https://gitforwindows.org/
Back
Next
Cancel

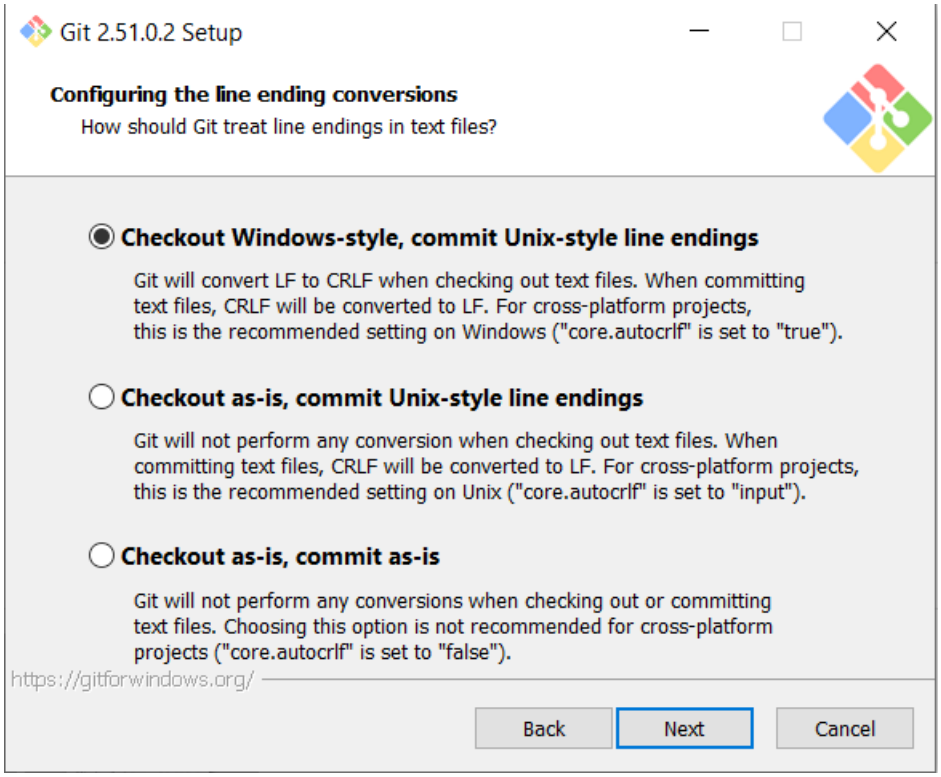

Git 2.51.0.2 Setup
Select Start Menu Folder
Where should Setup place the program's shortcuts?
Setup will create the program's shortcuts in the following Start Menu folder.
To continue, click Next. If you would like to select a different folder, click Browse.
Git
Browse...
Don't create a Start Menu folder
https://gitforwindows.org/
Back
Next
Cancel

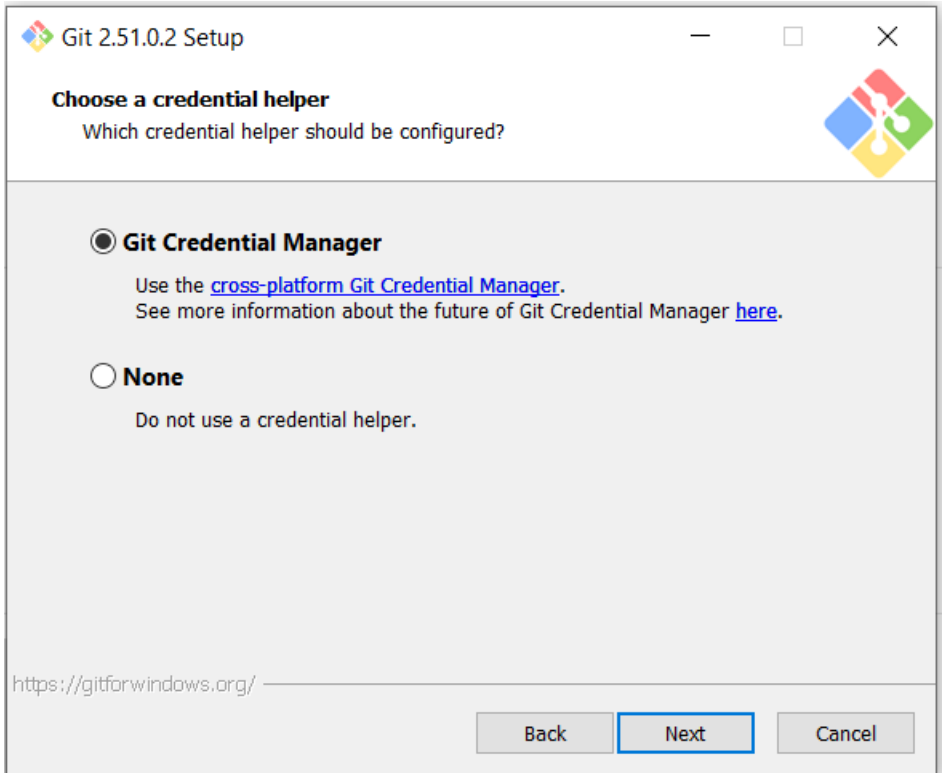

Git 2.51.0.2 Setup
Choosing the default editor used by Git
Which editor would you like Git to use?
Use Vim (the ubiquitous text editor) as Git's default editor
The Vim editor, while powerful, can be hard to use. Its user interface is unintuitive and its key bindings are awkward.
Note: Vim is the default editor of Git for Windows only for historical reasons, and it is highly recommended to switch to a modern GUI editor instead.
Note: This will leave the 'core.editor' option unset, which will make Git fall back to the 'EDITOR' environment variable. The default editor is Vim - but you may set it to some other editor of your choice.
https://gitforwindows.org/
Back
Next
Cancel

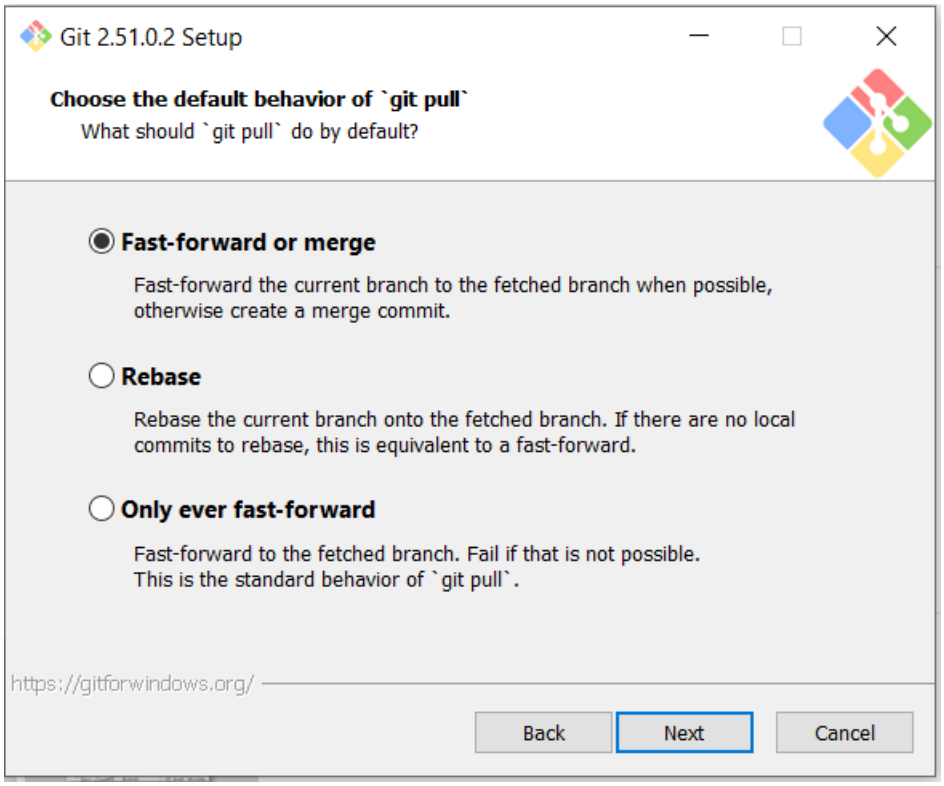

Git 2.51.0.2 Setup
Adjusting the name of the initial branch in new repositories
What would you like Git to name the initial branch after "git init"?
Let Git decide
Let Git use its default branch name (currently: "master") for the initial branch in newly created repositories.
Override the default branch name for new repositories
NEW! Many teams already renamed their default branches; common choices are "main", "trunk" and "development". Specify the name "git init" should use for the initial branch:
main
This setting does not affect existing repositories.
https://gitforwindows.org/
Back
Next
Cancel

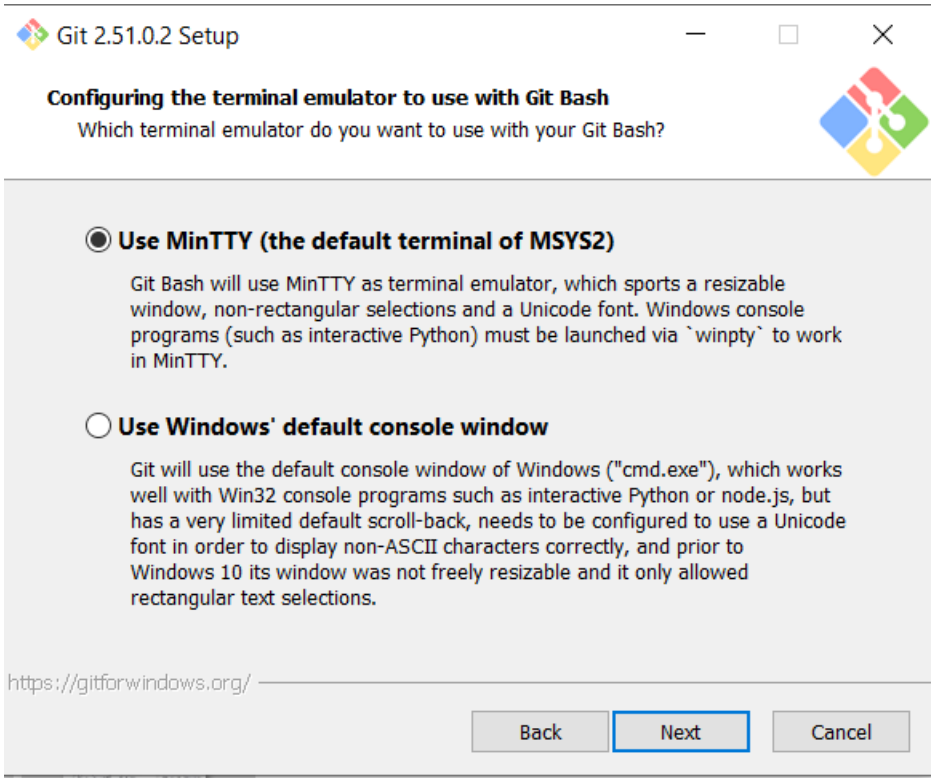

Git 2.51.0.2 Setup
Adjusting your PATH environment
How would you like to use Git from the command line?
Use Git from Git Bash only
This is the most cautious choice as your PATH will not be modified at all. You will only be able to use the Git command line tools from Git Bash.
Git from the command line and also from 3rd-party software
(Recommended) This option adds only some minimal Git wrappers to your PATH to avoid cluttering your environment with optional Unix tools. You will be able to use Git from Git Bash, the Command Prompt and the Windows PowerShell as well as any third-party software looking for Git in PATH.
Use Git and optional Unix tools from the Command Prompt
Both Git and the optional Unix tools will be added to your PATH.
Warning: This will override Windows tools like "find" and "sort". Only use this option if you understand the implications.
https://gitforwindows.org/
Back
Next
Cancel

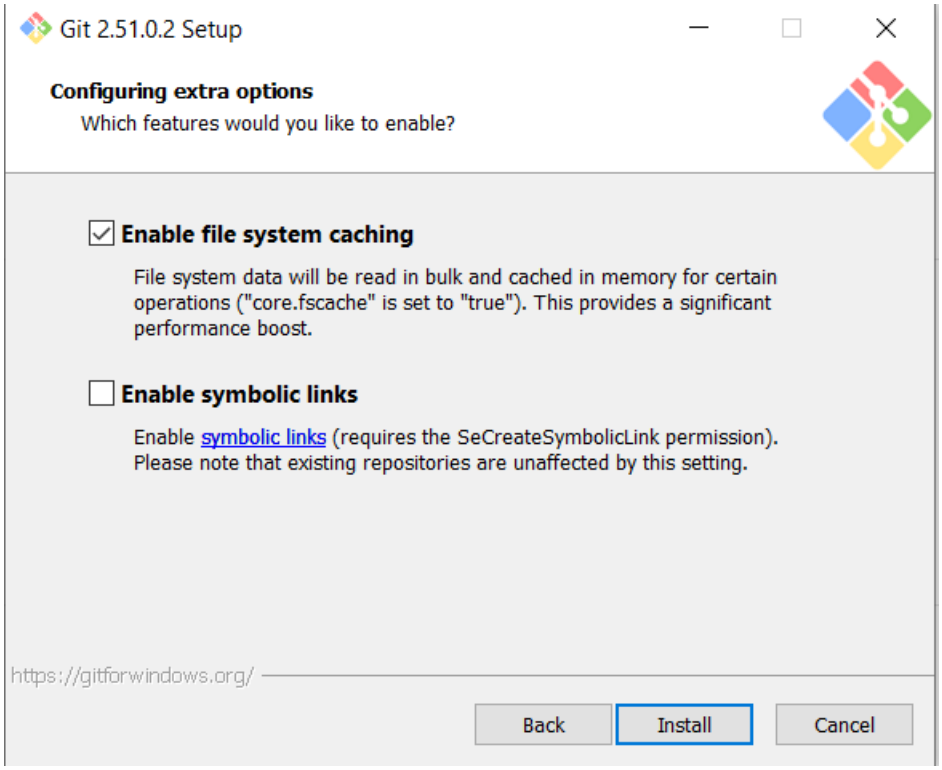

Git 2.51.0.2 Setup
Choosing HTTPS transport backend
Which SSL/TLS library would you like Git to use for HTTPS connections?
Use the OpenSSL library
Server certificates will be validated using the ca-bundle.crt file.
Use the native Windows Secure Channel library
Server certificates will be validated using Windows Certificate Stores.
This option also allows you to use your company's internal Root CA certificates distributed e.g. via Active Directory Domain Services.
https://gitforwindows.org/
Back
Next
Cancel

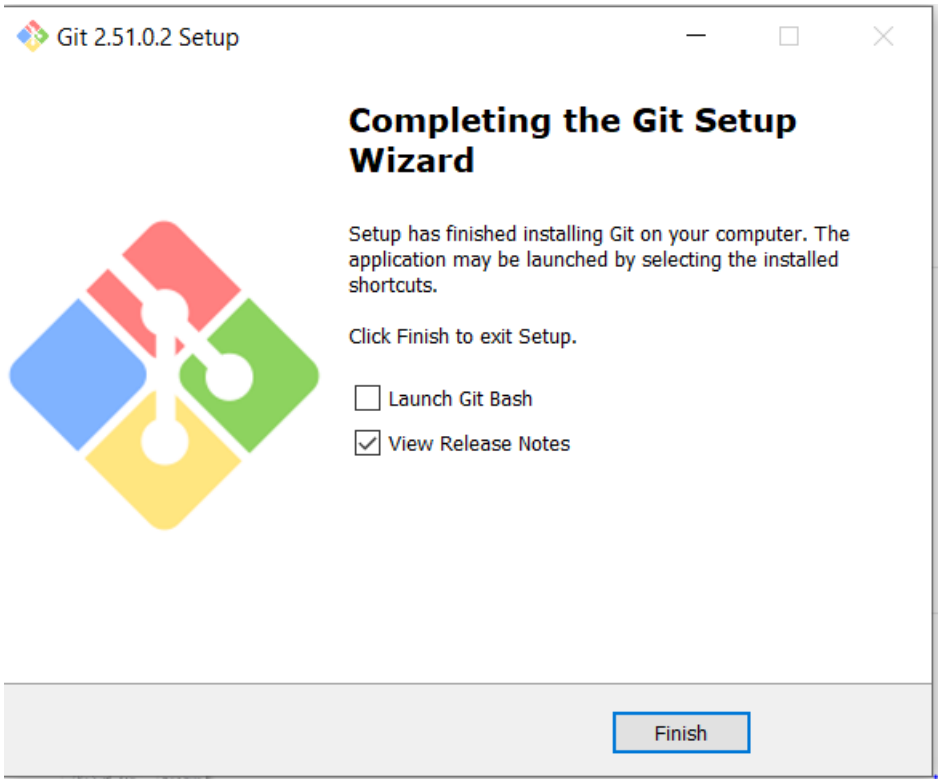

Git 2.51.0.2 Setup
Configuring the line ending conversions
How should Git treat line endings in text files?
Checkout Windows-style, commit Unix-style line endings
Git will convert LF to CRLF when checking out text files. When committing text files, CRLF will be converted to LF. For cross-platform projects, this is the recommended setting on Windows ("core.autocrlf" is set to "true").
Checkout as-is, commit Unix-style line endings
Git will not perform any conversion when checking out text files. When committing text files, CRLF will be converted to LF. For cross-platform projects, this is the recommended setting on Unix ("core.autocrlf" is set to "input").
Checkout as-is, commit as-is
Git will not perform any conversions when checking out or committing text files. Choosing this option is not recommended for cross-platform projects ("core.autocrlf" is set to "false").
https://gitforwindows.org/
Back
Next
Cancel


Git 2.51.0.2 Setup
Choose a credential helper
Which credential helper should be configured?
Git Credential Manager
Use the cross-platform Git Credential Manager.
See more information about the future of Git Credential Manager here.
None
Do not use a credential helper.
https://gitforwindows.org/
Back
Next
Cancel


Git 2.51.0.2 Setup
Choose the default behavior of `git pull`
What should `git pull` do by default?
Fast-forward or merge
Fast-forward the current branch to the fetched branch when possible, otherwise create a merge commit.
Rebase
Rebase the current branch onto the fetched branch. If there are no local commits to rebase, this is equivalent to a fast-forward.
Only ever fast-forward
Fast-forward to the fetched branch. Fail if that is not possible. This is the standard behavior of `git pull`.
https://gitforwindows.org/
Back
Next
Cancel

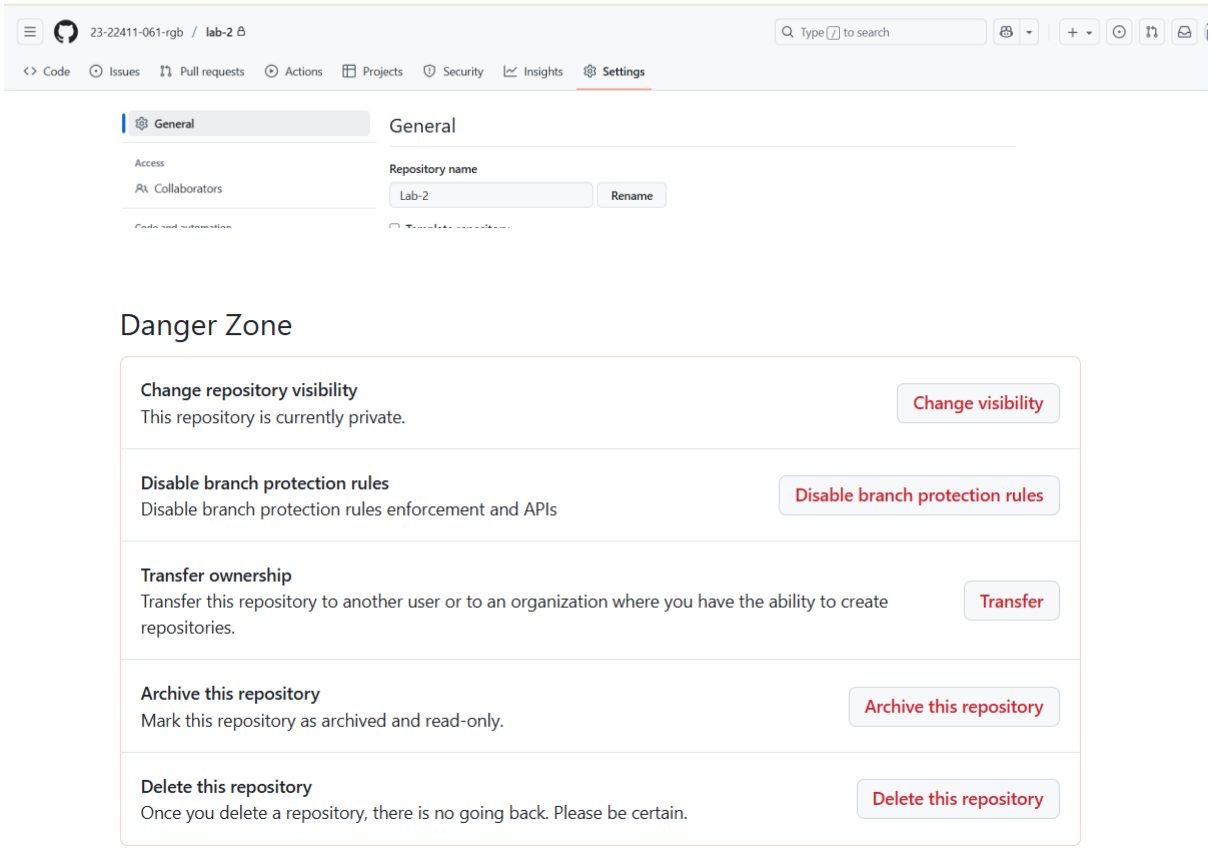

Git 2.51.0.2 Setup
Configuring the terminal emulator to use with Git Bash
Which terminal emulator do you want to use with your Git Bash?
Use MinTTY (the default terminal of MSYS2)
Git Bash will use MinTTY as terminal emulator, which sports a resizable window, non-rectangular selections and a Unicode font. Windows console programs (such as interactive Python) must be launched via `winpty` to work in MinTTY.
Use Windows' default console window
Git will use the default console window of Windows ("cmd.exe"), which works well with Win32 console programs such as interactive Python or node.js, but has a very limited default scroll-back, needs to be configured to use a Unicode font in order to display non-ASCII characters correctly, and prior to Windows 10 its window was not freely resizable and it only allowed rectangular text selections.
https://gitforwindows.org/
Back
Next
Cancel

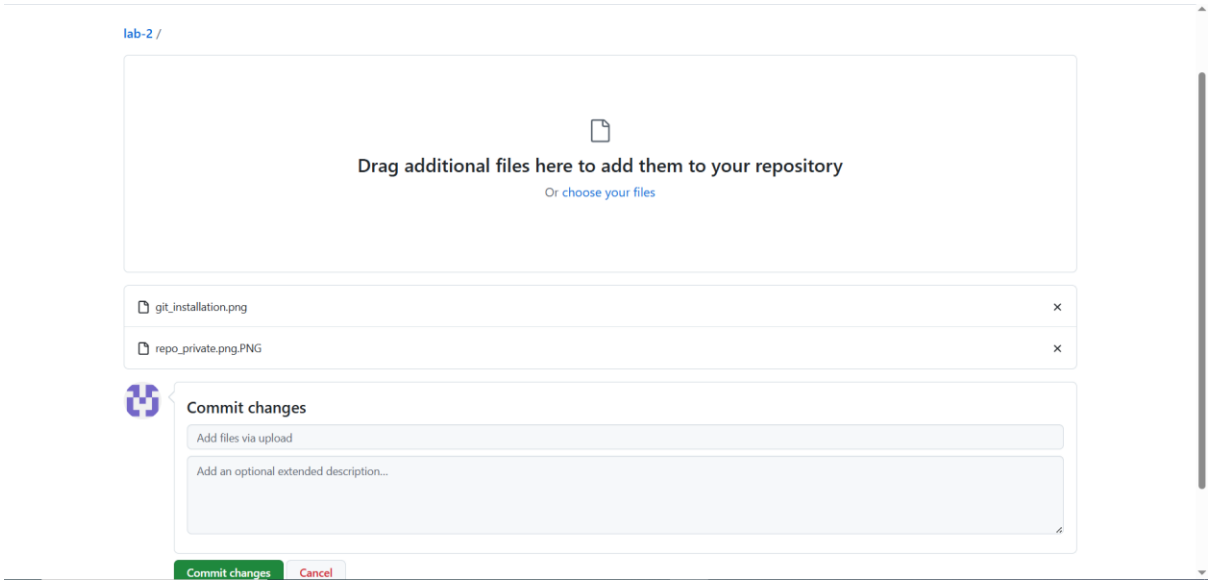

Git 2.51.0.2 Setup
Configuring extra options
Which features would you like to enable?
Enable file system caching
File system data will be read in bulk and cached in memory for certain operations ("core.fscache" is set to "true"). This provides a significant performance boost.
Enable symbolic links
Enable symbolic links (requires the SeCreateSymbolicLink permission). Please note that existing repositories are unaffected by this setting.
https://gitforwindows.org/
Back
Install
Cancel

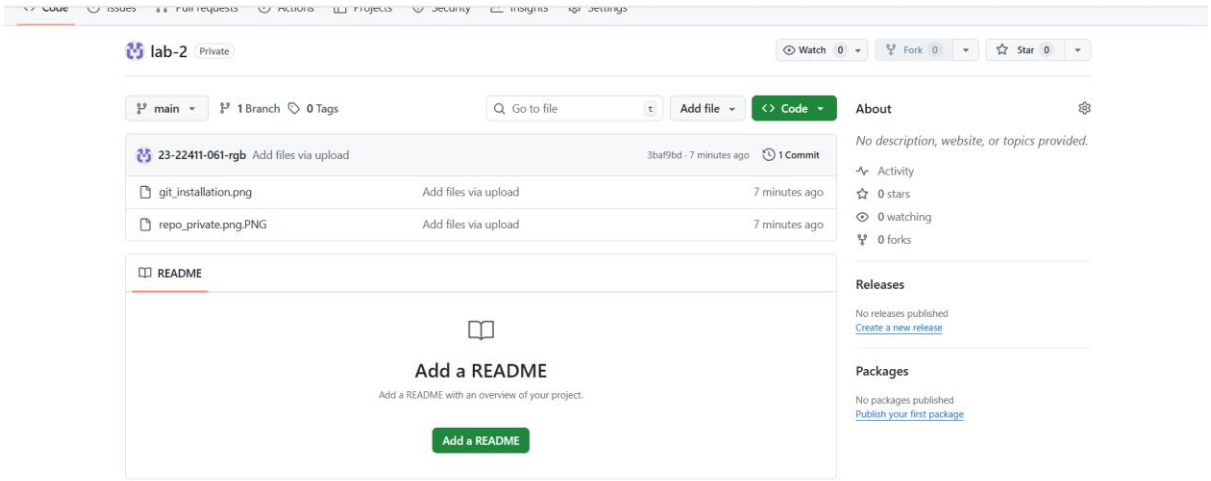

Git 2.51.0.2 Setup
Completing the Git Setup Wizard
Setup has finished installing Git on your computer. The application may be launched by selecting the installed shortcuts.
Click Finish to exit Setup.
Launch Git Bash
View Release Notes
Finish

- **Task 1:**

```
Syed@DESKTOP-S5OGK51 MINGW64 ~
$ git --version
git version 2.51.0.windows.2

Syed@DESKTOP-S5OGK51 MINGW64 ~
$
```

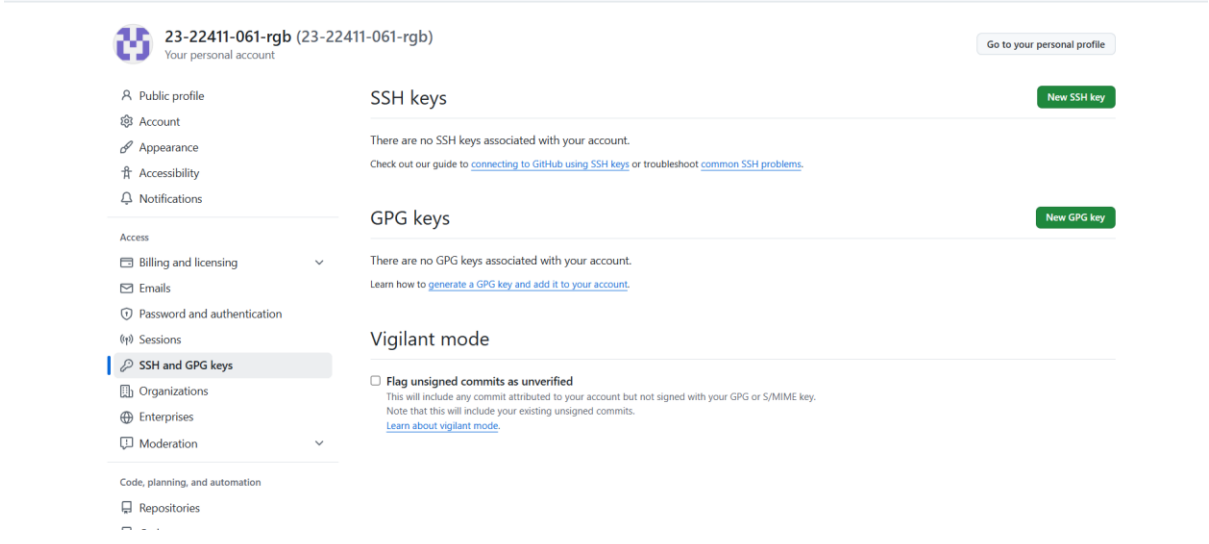


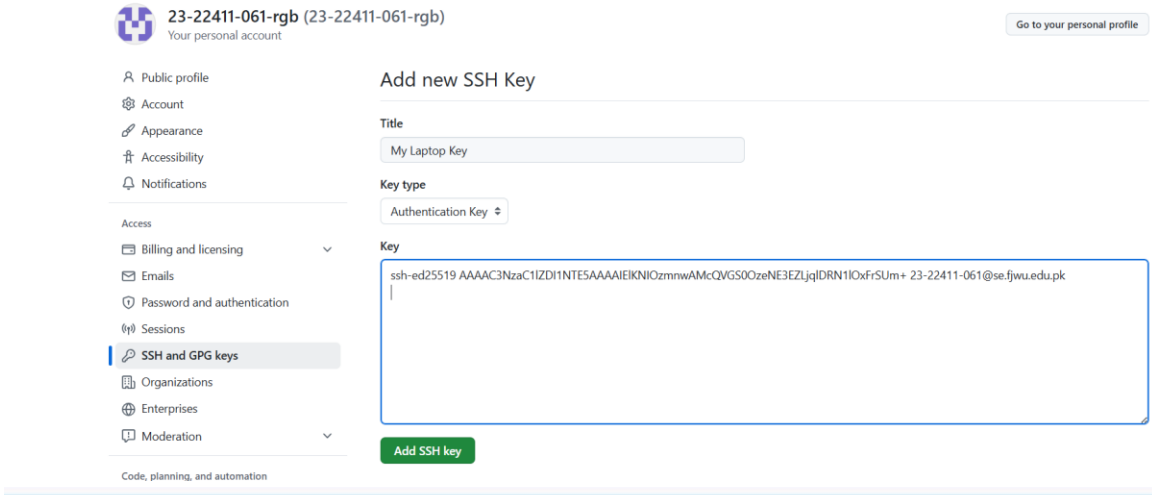

lab-2 /
Drag additional files here to add them to your repository
Or choose your files
git_installation.png
repo_private.png.PNG
Commit changes
Add files via upload
Add an optional extended description...
Commit changes
Cancel


lab-2
Private
Watch 0
Fork 0
Star 0
main
1 Branch
0 Tags
Go to file
Add file
Code
About
No description, website, or topics provided.
23-22411-061-rgb Add files via upload
3baf9bd · 7 minutes ago
1 Commit
git_installation.png
Add files via upload
7 minutes ago
repo_private.png.PNG
Add files via upload
7 minutes ago
Activity
0 stars
0 watching
0 forks
README
Releases
No releases published
Create a new release
Add a README
Add a README with an overview of your project.
Add a README
Packages
No packages published
Publish your first package

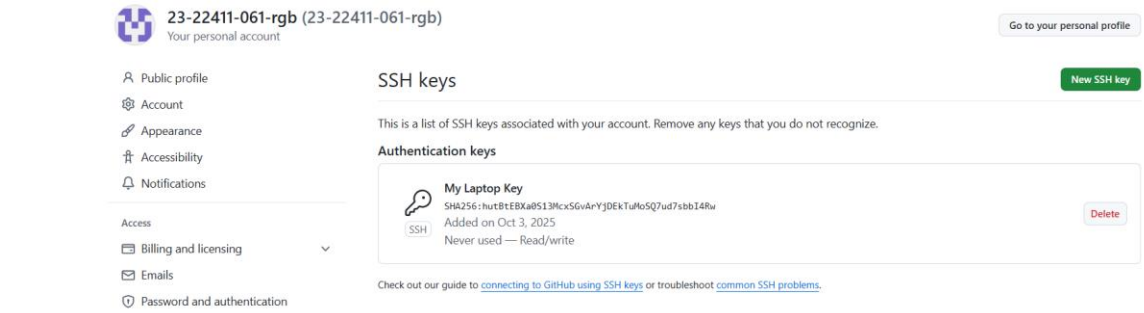
- **Task 2:**

```
PS C:\Users\Syed> ssh-keygen -t ed25519 -C "23-22411-061@se.fjwu.edu.pk"
Generating public/private ed25519 key pair.
Enter file in which to save the key (C:\Users\Syed/.ssh/id_ed25519):
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in C:\Users\Syed/.ssh/id_ed25519
Your public key has been saved in C:\Users\Syed/.ssh/id_ed25519.pub
The key fingerprint is:
SHA256:hutBtEBXa0S13McxSGvArYjDEkTuMoSQ7ud7sbbI4Rw 23-22411-061@se.fjwu.edu.pk
The key's randomart image is:
+--[ED25519 256]--+
|.. o+ .o+ooo..o  |
|o. o.. . o.+oo o |
|o . oo..o.o.+ o  |
| o ..o++. .. .   |
|. o ..+.S        |
| . + o o         |
|  oE  =          |
|  +.+* .         |
|   *+.o          |
+----[SHA256]-----+
PS C:\Users\Syed> \.ssh\
\.ssh\ : The term '\.ssh\' is not recognized as the name of a cmdlet, function, script file, or operable program.
Check the spelling of the name, or if a path was included, verify that the path is correct and try again.
At line:1 char:1
+ \.ssh\
+ ~~~~~~
    + CategoryInfo          : ObjectNotFound: (\.ssh\:String) [], CommandNotFoundException
    + FullyQualifiedErrorId : CommandNotFoundException

PS C:\Users\Syed> cd $env:USERPROFILE\.ssh
>> dir


    Directory: C:\Users\Syed\.ssh


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
-a----         10/3/2025   8:25 AM            419 id_ed25519
-a----         10/3/2025   8:25 AM            110 id_ed25519.pub
-a----         9/30/2025  10:40 AM            846 known_hosts
-a----         9/30/2025  10:40 AM             98 known_hosts.old


PS C:\Users\Syed\.ssh> notepad id_ed25519.pub
PS C:\Users\Syed\.ssh>
```



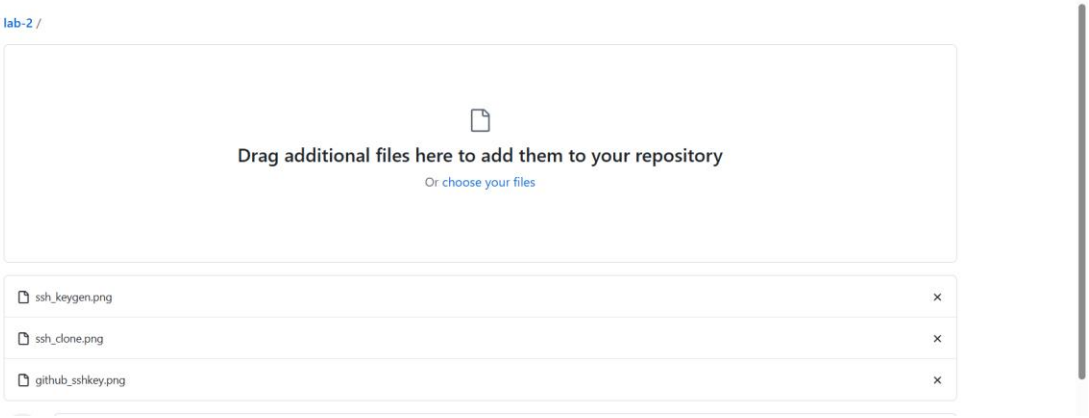




You have successfully added the key 'My Laptop Key'.




```
PS C:\Users\Syed\.ssh> ssh -T git@github.com
Hi 23-22411-061-rgb! You've successfully authenticated, but GitHub does not provide shell access.
PS C:\Users\Syed\.ssh>
```

```
PS C:\Users\Syed\Documents> git clone git@github.com:23-22411-061-rgb/lab-2.git
Cloning into 'lab-2'...
remote: Enumerating objects: 4, done.
remote: Counting objects: 100% (4/4), done.
remote: Compressing objects: 100% (4/4), done.
remote: Total 4 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
Receiving objects: 100% (4/4), 44.26 KiB | 154.00 KiB/s, done.
PS C:\Users\Syed\Documents>
```




- **Task 3:**

```
PS C:\Users\Syed\Documents> git config --global user.name "Shumail Zahra"
PS C:\Users\Syed\Documents> git config --global user.email "23-22411-061@se.fjwu.edu.pk"
PS C:\Users\Syed\Documents>
```

```
PS C:\Users\Syed\Documents> git config --list
>>
diff.astextplain.textconv=astextplain
filter.lfs.clean=git-lfs clean -- %f
filter.lfs.smudge=git-lfs smudge -- %f
filter.lfs.process=git-lfs filter-process
filter.lfs.required=true
http.sslbackend=schannel
core.autocrlf=true
core.fscache=true
core.symlinks=false
pull.rebase=false
credential.helper=manager
credential.https://dev.azure.com.usehttppath=true
init.defaultbranch=master
gui.recentrepo=C:/Users/Syed/xxxxxx
gui.recentrepo=C:/Users/Syed/Lab2
gui.recentrepo=C:/Users/Syed/Pictures/lab 2
user.email=23-22411-061@se.fjwu.edu.pk
user.name=Shumail Zahra
PS C:\Users\Syed\Documents>
```

.

```
PS C:\Users\Syed\Documents\lab-2> Move-Item "git_installation.png" "$env:USERPROFILE\Documents\lab-2"
>> Move-Item "repo_private.png" "$env:USERPROFILE\Documents\lab-2"
>> Move-Item "ssh_keygen.png" "$env:USERPROFILE\Documents\lab-2"
>> Move-Item "github_sshkey.png" "$env:USERPROFILE\Documents\lab-2"
>> Move-Item "ssh_clone.png" "$env:USERPROFILE\Documents\lab-2"
>> Move-Item "git_identity.png" "$env:USERPROFILE\Documents\lab-2"
>> Move-Item "git_config_list.png" "$env:USERPROFILE\Documents\lab-2"
>>
PS C:\Users\Syed\Documents\lab-2> cd $env:USERPROFILE\Documents\lab-2
>>
PS C:\Users\Syed\Documents\lab-2> git add *.png
>>
PS C:\Users\Syed\Documents\lab-2> git commit -m "Added all lab screenshots"
>>
[main 80c989d] Added all lab screenshots
 7 files changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 git_config_list.png
 create mode 100644 git_identity.png
 create mode 100644 git_installation.png
 create mode 100644 github_sshkey.png
 create mode 100644 repo_private.png
 create mode 100644 ssh_clone.png
 create mode 100644 ssh_keygen.png
```

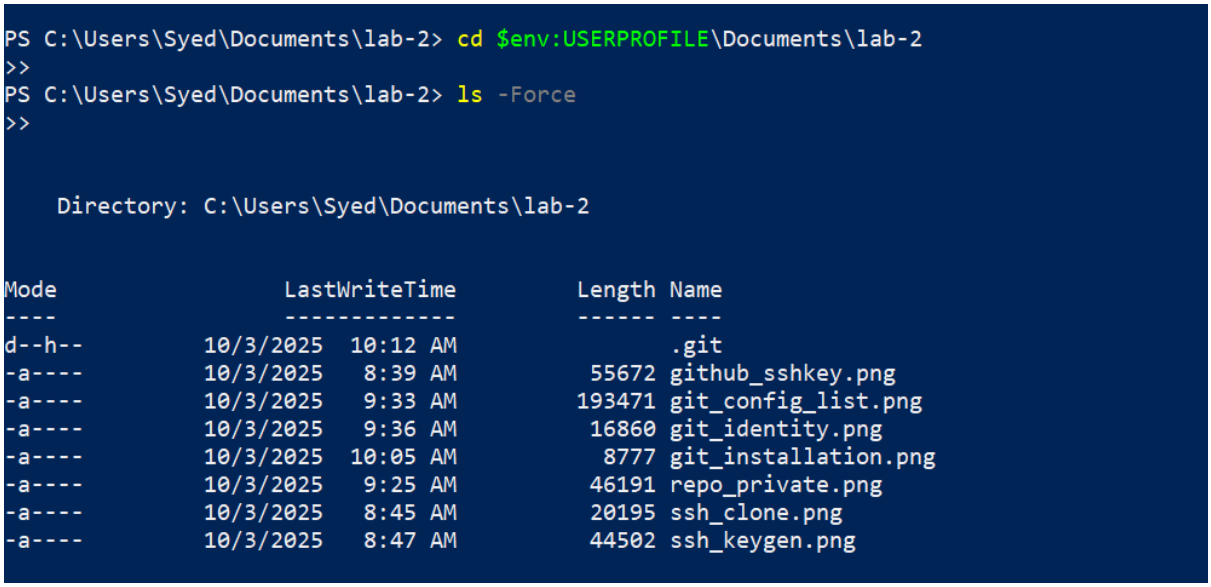
```
PS C:\Users\Syed\Documents\lab-2> cd $env:USERPROFILE\Documents\lab-2
PS C:\Users\Syed\Documents\lab-2> git add *.png
PS C:\Users\Syed\Documents\lab-2> git commit -m "Added all lab screenshots"
>>
[detached HEAD 6ddbb7e] Added all lab screenshots
 1 file changed, 0 insertions(+), 0 deletions(-)
 delete mode 100644 git_installation.png
PS C:\Users\Syed\Documents\lab-2> git pull origin main --rebase
From github.com:23-22411-061-rgb/lab-2
 * branch            main       -> FETCH_HEAD
fatal: It seems that there is already a rebase-merge directory, and
I wonder if you are in the middle of another rebase.  If that is the
case, please try
        git rebase (--continue | --abort | --skip)
If that is not the case, please
        rm -fr ".git/rebase-merge"
and run me again.  I am stopping in case you still have something
valuable there.

PS C:\Users\Syed\Documents\lab-2> git rebase --continue
>>
Successfully rebased and updated refs/heads/main.
PS C:\Users\Syed\Documents\lab-2> git pull origin main --rebase
>>
From github.com:23-22411-061-rgb/lab-2
 * branch            main       -> FETCH_HEAD
Current branch main is up to date.
PS C:\Users\Syed\Documents\lab-2>
PS C:\Users\Syed\Documents\lab-2> git push origin main
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 8 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 427 bytes | 427.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To github.com:23-22411-061-rgb/lab-2.git
   0ba4493..9c3a1b2  main -> main
PS C:\Users\Syed\Documents\lab-2> git log --oneline
>>
9c3a1b2 (HEAD -> main, origin/main, origin/HEAD) Added all lab screenshots
6ddbb7e Added all lab screenshots
```

**bug**

```
>>
9c3a1b2 (HEAD -> main, origin/main, origin/HEAD) Added all lab screenshots
6ddbb7e Added all lab screenshots
0ba4493 Add files via upload
d806aa2 Add files via upload
956ef3e Delete ssh_keygen.png
87a2995 Delete ssh_clone.png
46d68ac Delete repo_private.png.PNG
ed009f8 Delete github_sshkey.png
034d803 Delete git_installation.png
75b4d48 Delete git_identity.png..PNG
dfa591f Delete git_config_list.png..PNG
7b2b1fa Add files via upload
a873e46 Add files via upload
3baf9bd Add files via upload
PS C:\Users\Syed\Documents\lab-2> git status
>>
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean
PS C:\Users\Syed\Documents\lab-2> cd $env:USERPROFILE\Documents\lab-2
>> git add git_identity.png git_config_list.png
>> git commit -m "Added Git identity and config screenshots"
>> git push origin main
>>
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean
Everything up-to-date
```

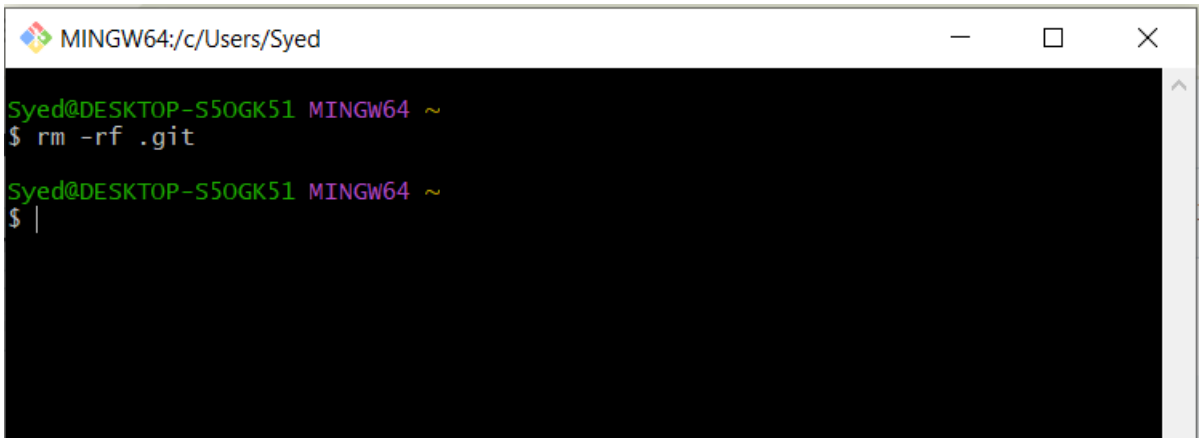
```
PS C:\Users\Syed\Documents\lab-2>  dir *.png


    Directory: C:\Users\Syed\Documents\lab-2


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
-a----         10/3/2025   8:39 AM          55672 github_sshkey.png
-a----         10/3/2025   9:33 AM         193471 git_config_list.png
-a----         10/3/2025   9:36 AM          16860 git_identity.png
-a----         10/3/2025  10:05 AM           8777 git_installation.png
-a----         10/3/2025   9:25 AM          46191 repo_private.png
-a----         10/3/2025   8:45 AM          20195 ssh_clone.png
-a----         10/3/2025   8:47 AM          44502 ssh_keygen.png
```

- **Task 4:**


PS C:\Users\Syed\Documents\lab-2> cd $env:USERPROFILE\Documents\lab-2
>>
PS C:\Users\Syed\Documents\lab-2> ls -Force
>>
Directory: C:\Users\Syed\Documents\lab-2
Mode LastWriteTime Length Name
d--h-- 10/3/2025 10:12 AM .git
-a---- 10/3/2025 8:39 AM 55672 github_sshkey.png
-a---- 10/3/2025 9:33 AM 193471 git_config_list.png
-a---- 10/3/2025 9:36 AM 16860 git_identity.png
-a---- 10/3/2025 10:05 AM 8777 git_installation.png
-a---- 10/3/2025 9:25 AM 46191 repo_private.png
-a---- 10/3/2025 8:45 AM 20195 ssh_clone.png
-a---- 10/3/2025 8:47 AM 44502 ssh_keygen.png

```
PS C:\Users\Syed\Documents\lab-2> Get-ChildItem -Force .git
>>


    Directory: C:\Users\Syed\Documents\lab-2\.git


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
d-----         10/3/2025   8:44 AM                hooks
d-----         10/3/2025   8:44 AM                info
d-----         10/3/2025   8:44 AM                logs
d-----         10/3/2025  10:05 AM                objects
d-----         10/3/2025   8:44 AM                refs
-a----         10/3/2025  10:12 AM             42 COMMIT_EDITMSG
-a----         10/3/2025   8:44 AM            300 config
-a----         10/3/2025   8:44 AM             73 description
-a----         10/3/2025  10:05 AM             93 FETCH_HEAD
-a----         10/3/2025  10:05 AM             21 HEAD
-a----         10/3/2025  10:12 AM            641 index
-a----         10/3/2025   9:57 AM             41 ORIG_HEAD
-a----         10/3/2025   8:44 AM            112 packed-refs


PS C:\Users\Syed\Documents\lab-2> ls -Force .git
>>


    Directory: C:\Users\Syed\Documents\lab-2\.git


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
d-----         10/3/2025   8:44 AM                hooks
d-----         10/3/2025   8:44 AM                info
d-----         10/3/2025   8:44 AM                logs
d-----         10/3/2025  10:05 AM                objects
d-----         10/3/2025   8:44 AM                refs
-a----         10/3/2025  10:12 AM             42 COMMIT_EDITMSG
-a----         10/3/2025   8:44 AM            300 config
-a----         10/3/2025   8:44 AM             73 description
-a----         10/3/2025  10:05 AM             93 FETCH_HEAD
-a----         10/3/2025  10:05 AM             21 HEAD
-a----         10/3/2025  10:12 AM            641 index
-a----         10/3/2025   9:57 AM             41 ORIG_HEAD
-a----         10/3/2025   8:44 AM            112 packed-refs
```

- **Task 5:**




```
Syed@DESKTOP-S5OGK51 MINGW64 ~
$ git init
Initialized empty Git repository in C:/Users/Syed/.git/

Syed@DESKTOP-S5OGK51 MINGW64 ~ (master)
$
```

```
Syed@DESKTOP-S5OGK51 MINGW64 ~ (master)
$ echo "# Lab 2 Git Practice" > README.md

Syed@DESKTOP-S5OGK51 MINGW64 ~ (master)
$ git add README.md
warning: in the working copy of 'README.md', LF will be replaced by CRLF the nex
t time Git touches it

Syed@DESKTOP-S5OGK51 MINGW64 ~ (master)
$ git commit -m "Initial commit"
[master (root-commit) 3afd596] Initial commit
 1 file changed, 1 insertion(+)
 create mode 100644 README.md
```

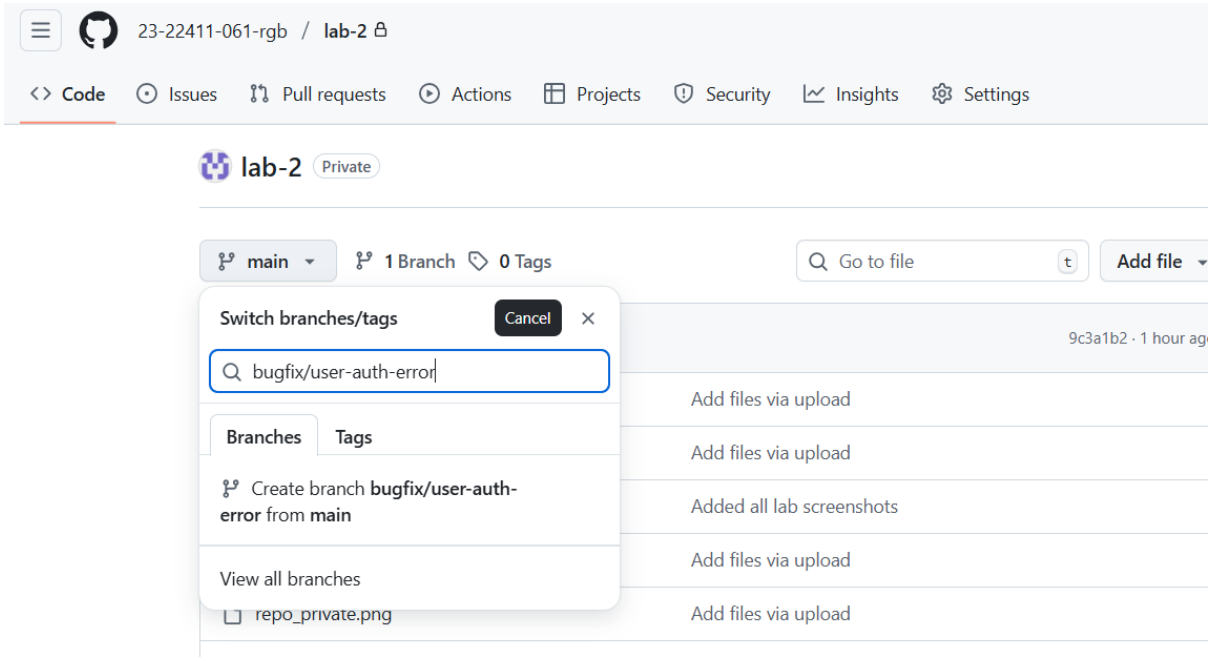
```
Syed@DESKTOP-S5OGK51 MINGW64 ~ (master)
$ git remote add origin git@github.com:23-22411-061-rgb/lab-2.git

Syed@DESKTOP-S5OGK51 MINGW64 ~ (master)
$ git push -u origin main
error: src refspec main does not match any
error: failed to push some refs to 'github.com:23-22411-061-rgb/lab-2.git'

Syed@DESKTOP-S5OGK51 MINGW64 ~ (master)
$ git push -u origin master
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Writing objects: 100% (3/3), 245 bytes | 61.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: Create a pull request for 'master' on GitHub by visiting:
remote:      https://github.com/23-22411-061-rgb/lab-2/pull/new/master
remote:
To github.com:23-22411-061-rgb/lab-2.git
 * [new branch]      master -> master
branch 'master' set up to track 'origin/master'.
```

- **Task 6:**

```
PS C:\Users\Syed\Documents\lab-2> notepad notes.txt
PS C:\Users\Syed\Documents\lab-2> 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)
        notes.txt

nothing added to commit but untracked files present (use "git add" to track)
PS C:\Users\Syed\Documents\lab-2>
```

```
PS C:\Users\Syed\Documents\lab-2> git add notes.txt
PS C:\Users\Syed\Documents\lab-2> git commit -m "Add notes.txt"
[main ef581ad] Add notes.txt
 1 file changed, 1 insertion(+)
 create mode 100644 notes.txt
PS C:\Users\Syed\Documents\lab-2>
```

- **Task 7:**




```
Syed@DESKTOP-S5OGK51 MINGW64 ~ (main)
$ cd ~/Documents/lab-2

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (main)
$ git pull origin bugfix/user-auth-error
From github.com:23-22411-061-rgb/lab-2
 * branch            bugfix/user-auth-error -> FETCH_HEAD
 * [new branch]      bugfix/user-auth-error -> origin/bugfix/user-auth-error
Already up to date.
```

```
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (bugfix/user-auth-error)
$ git branch
* bugfix/user-auth-error
  main
```

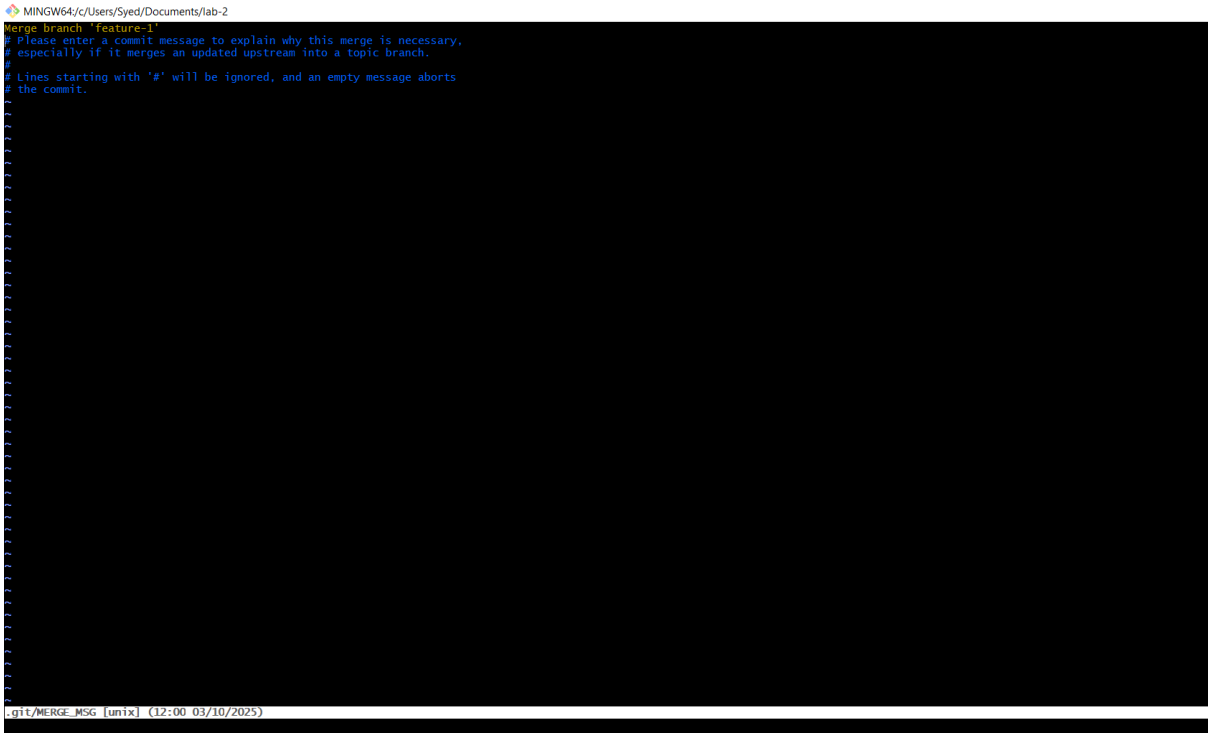
- **Task 8:**

```
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (bugfix/user-auth-error)
$ git checkout -b feature/db-connection
Switched to a new branch 'feature/db-connection'

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (feature/db-connection)
$ git push origin feature/db-connection
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: Create a pull request for 'feature/db-connection' on GitHub by visiting
remote:      https://github.com/23-22411-061-rgb/lab-2/pull/new/feature/db-conne
ction
remote:
To github.com:23-22411-061-rgb/lab-2.git
 * [new branch]      feature/db-connection -> feature/db-connection
```

- **Task 9**

```
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (main)
$ git checkout -b feature-1
fatal: a branch named 'feature-1' already exists

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (main)
$ git branch
  bugfix/user-auth-error
  feature-1
  feature/db-connection
* main
```

```
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (main)
$ git add main.py

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (main)
$ git commit -m"Add new function to main.py"
On branch main
Your branch is ahead of 'origin/main' by 3 commits.
  (use "git push" to publish your local commits)

nothing to commit, working tree clean

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (main)
$ git commit -m "Add new function to main.py"
On branch main
Your branch is ahead of 'origin/main' by 3 commits.
  (use "git push" to publish your local commits)

nothing to commit, working tree clean

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (main)
$ git push origin main
Enumerating objects: 9, done.
Counting objects: 100% (9/9), done.
Delta compression using up to 8 threads
Compressing objects: 100% (6/6), done.
Writing objects: 100% (8/8), 700 bytes | 87.00 KiB/s, done.
Total 8 (delta 4), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (4/4), completed with 1 local object.
To github.com:23-22411-061-rgb/lab-2.git
   9c3a1b2..d6bb084  main -> main
```

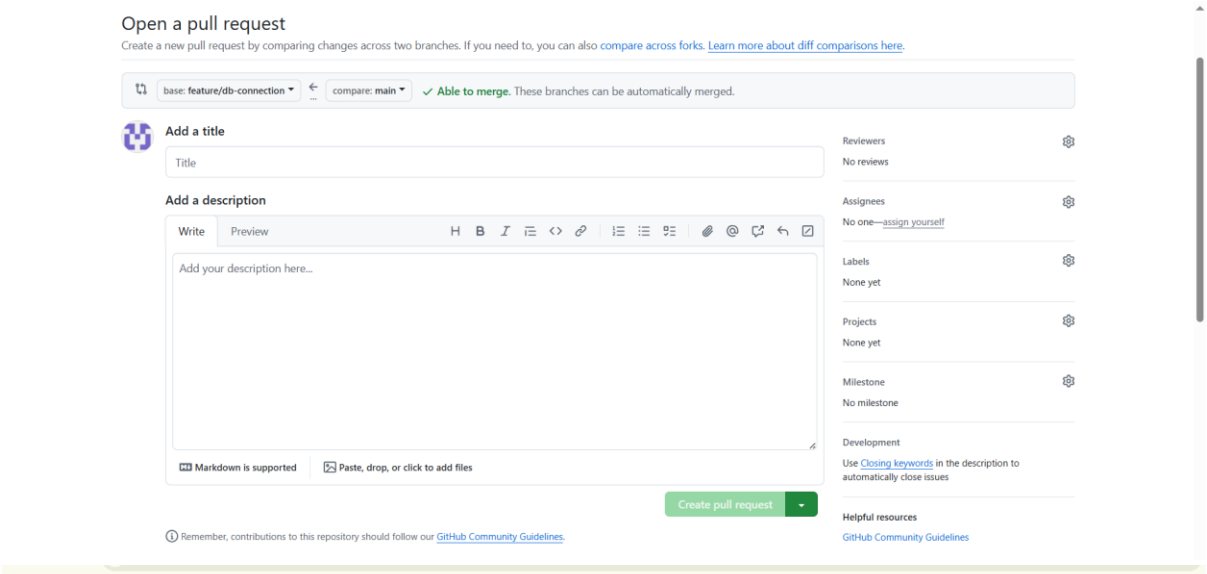


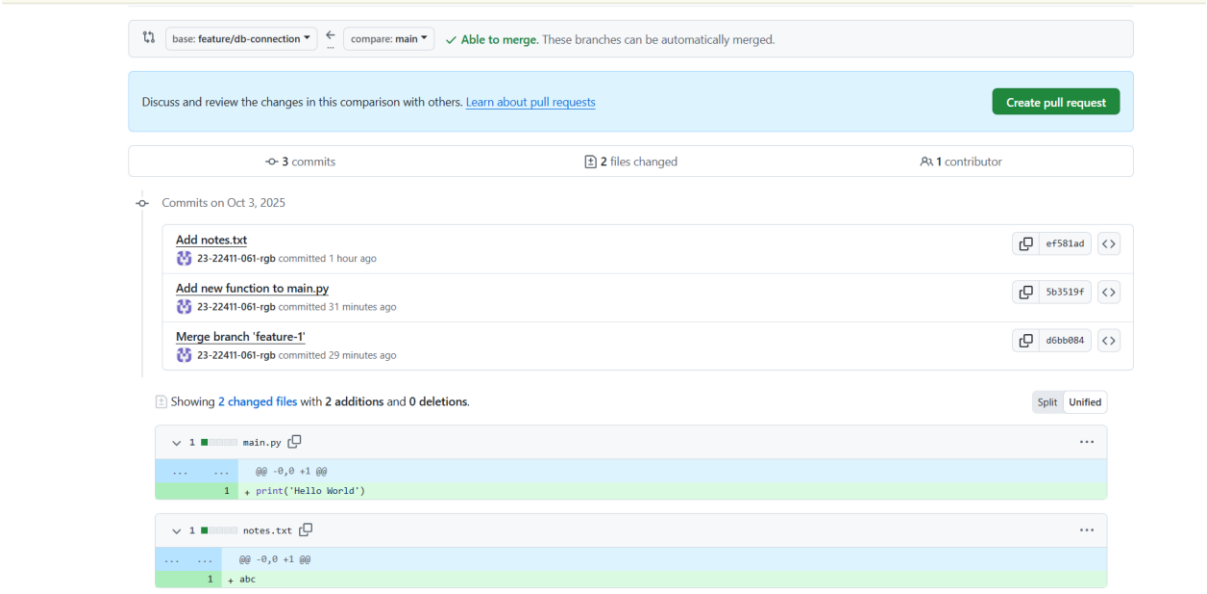

```
Merge branch 'feature-1'

Merge made by the 'ort' strategy.
 main.py | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 main.py
```

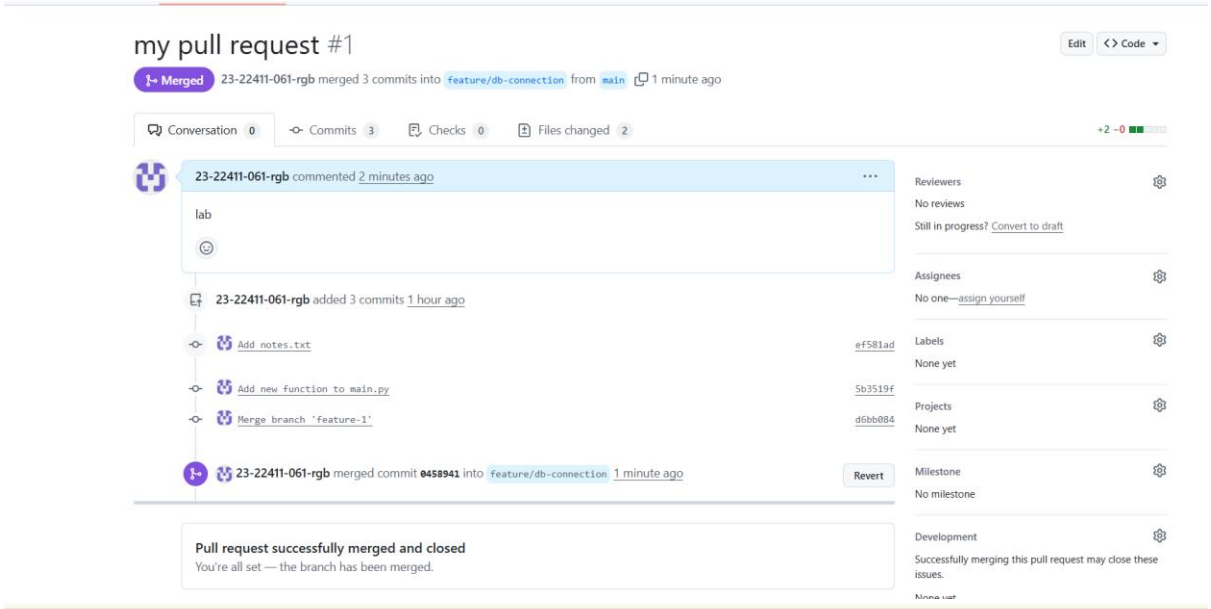
```
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (main)
$ git checkout main
Already on 'main'
Your branch is up to date with 'origin/main'.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (main)
$ git merge feature-1
Already up to date.
```

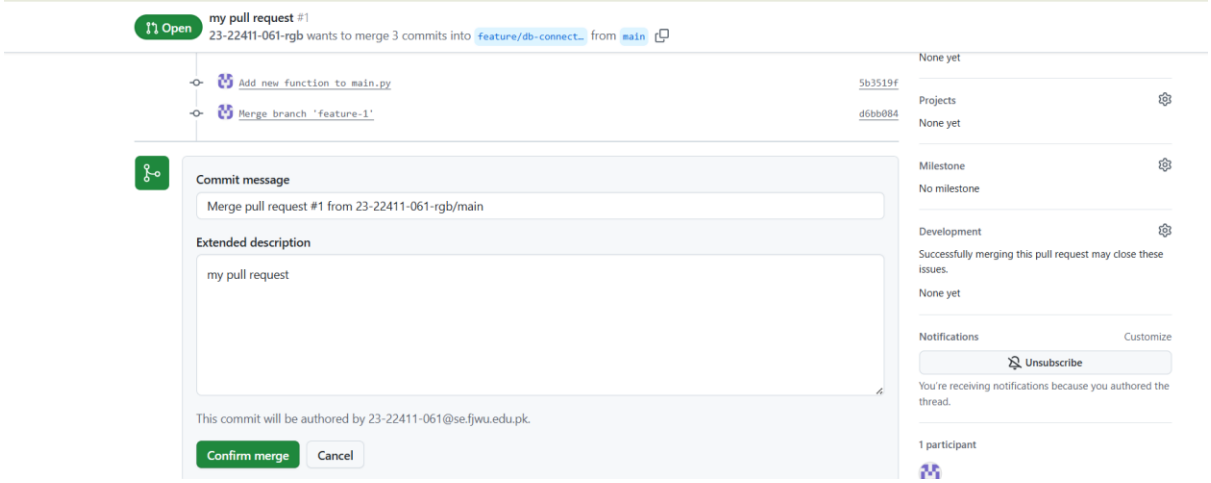
```
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (main)
$ git push origin main
Everything up-to-date

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (main)
$

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (main)
$ git push origin feature-1
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: Create a pull request for 'feature-1' on GitHub by visiting:
remote:      https://github.com/23-22411-061-rgb/lab-2/pull/new/feature-1
remote:
To github.com:23-22411-061-rgb/lab-2.git
 * [new branch]      feature-1 -> feature-1
```

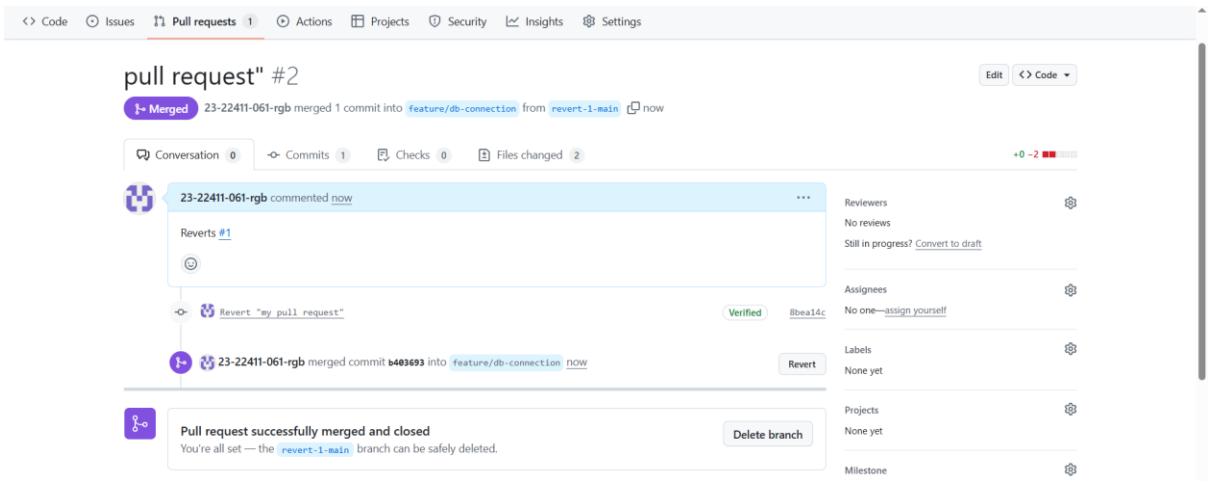
- **Task 10:**






- **Task 11:**

**CREATION BRANCHES:**

```
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (main)
$ git checkout main
Already on 'main'
Your branch is up to date with 'origin/main'.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (main)
$ git pull origin main
From github.com:23-22411-061-rgb/lab-2
 * branch            main       -> FETCH_HEAD
Already up to date.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (main)
$ git checkout -b develop
Switched to a new branch 'develop'

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (develop)
$ git push origin develop
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: Create a pull request for 'develop' on GitHub by visiting:
remote:      https://github.com/23-22411-061-rgb/lab-2/pull/new/develop
remote:
To github.com:23-22411-061-rgb/lab-2.git
 * [new branch]      develop -> develop

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (develop)
$ git checkout -b staging
Switched to a new branch 'staging'
g
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (staging)
$ git push origin staging
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: Create a pull request for 'staging' on GitHub by visiting:
remote:      https://github.com/23-22411-061-rgb/lab-2/pull/new/staging
remote:
To github.com:23-22411-061-rgb/lab-2.git
 * [new branch]      staging -> staging

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (staging)
```

```
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (staging)
$ git checkout develop
Switched to branch 'develop'

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (develop)
$ git checkout -b feature/login-page
Switched to a new branch 'feature/login-page'

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (feature/login-page)
$ git push origin feature/login-page
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: Create a pull request for 'feature/login-page' on GitHub by visiting:
remote:      https://github.com/23-22411-061-rgb/lab-2/pull/new/feature/login-pa
ge
remote:
To github.com:23-22411-061-rgb/lab-2.git
 * [new branch]      feature/login-page -> feature/login-page

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (feature/login-page)
$ git checkout develop
Switched to branch 'develop'

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (develop)
$ git checkout develop
Already on 'develop'

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (develop)
$ git checkout -b bugfix/header-error
Switched to a new branch 'bugfix/header-error'

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (bugfix/header-error)
$ git push origin bugfix/header-error
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: Create a pull request for 'bugfix/header-error' on GitHub by visiting:
remote:      https://github.com/23-22411-061-rgb/lab-2/pull/new/bugfix/header-er
ror
remote:
To github.com:23-22411-061-rgb/lab-2.git
 * [new branch]      bugfix/header-error -> bugfix/header-error
```

## Example workflow:

```
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (bugfix/header-error)
$
git checkout develop
Switched to branch 'develop'

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (develop)
$ git checkout -b feature/login-page
fatal: a branch named 'feature/login-page' already exists

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (develop)
$ git add main.py

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (develop)
$ git commit -m"Add login page function"
On branch develop
nothing to commit, working tree clean

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (develop)
$ git push origin feature/login-page
Everything up-to-date
```

```
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (develop)
$ git checkout develop
git pull origin develop
git merge feature/login-page
git push origin develop
Already on 'develop'
From github.com:23-22411-061-rgb/lab-2
 * branch            develop    -> FETCH_HEAD
Already up to date.
Already up to date.
Everything up-to-date
```

```
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (develop)
$ git checkout develop
Already on 'develop'

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (develop)
$ git pull origin develop
From github.com:23-22411-061-rgb/lab-2
 * branch            develop    -> FETCH_HEAD
Already up to date.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (develop)
$ git merge feature/login-page
Already up to date.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (develop)
$ git push origin develop
Everything up-to-date

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (develop)
$

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (develop)
$ git checkout staging
Switched to branch 'staging'

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (staging)
$ git pull origin staging
From github.com:23-22411-061-rgb/lab-2
 * branch            staging    -> FETCH_HEAD
Already up to date.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (staging)
$ git merge develop
Already up to date.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (staging)
$ git push origin staging
Everything up-to-date

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (staging)
$ git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (main)
$ git pull origin main
From github.com:23-22411-061-rgb/lab-2
 * branch            main       -> FETCH_HEAD
Already up to date.
gin
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (main)
$ git merge staging
Already up to date.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (main)
$ git push origin main
Everything up-to-date
```

```
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (develop)
$ git checkout staging
Switched to branch 'staging'

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (staging)
$ git pull origin staging
From github.com:23-22411-061-rgb/lab-2
 * branch            staging    -> FETCH_HEAD
Already up to date.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (staging)
$ git merge develop
Already up to date.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (staging)
$ git push origin staging
Everything up-to-date

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (staging)
$ git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (main)
$ git pull origin main
From github.com:23-22411-061-rgb/lab-2
 * branch            main       -> FETCH_HEAD
Already up to date.
gin
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (main)
$ git merge staging
Already up to date.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (main)
$ git push origin main
Everything up-to-date

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (main)
$
```

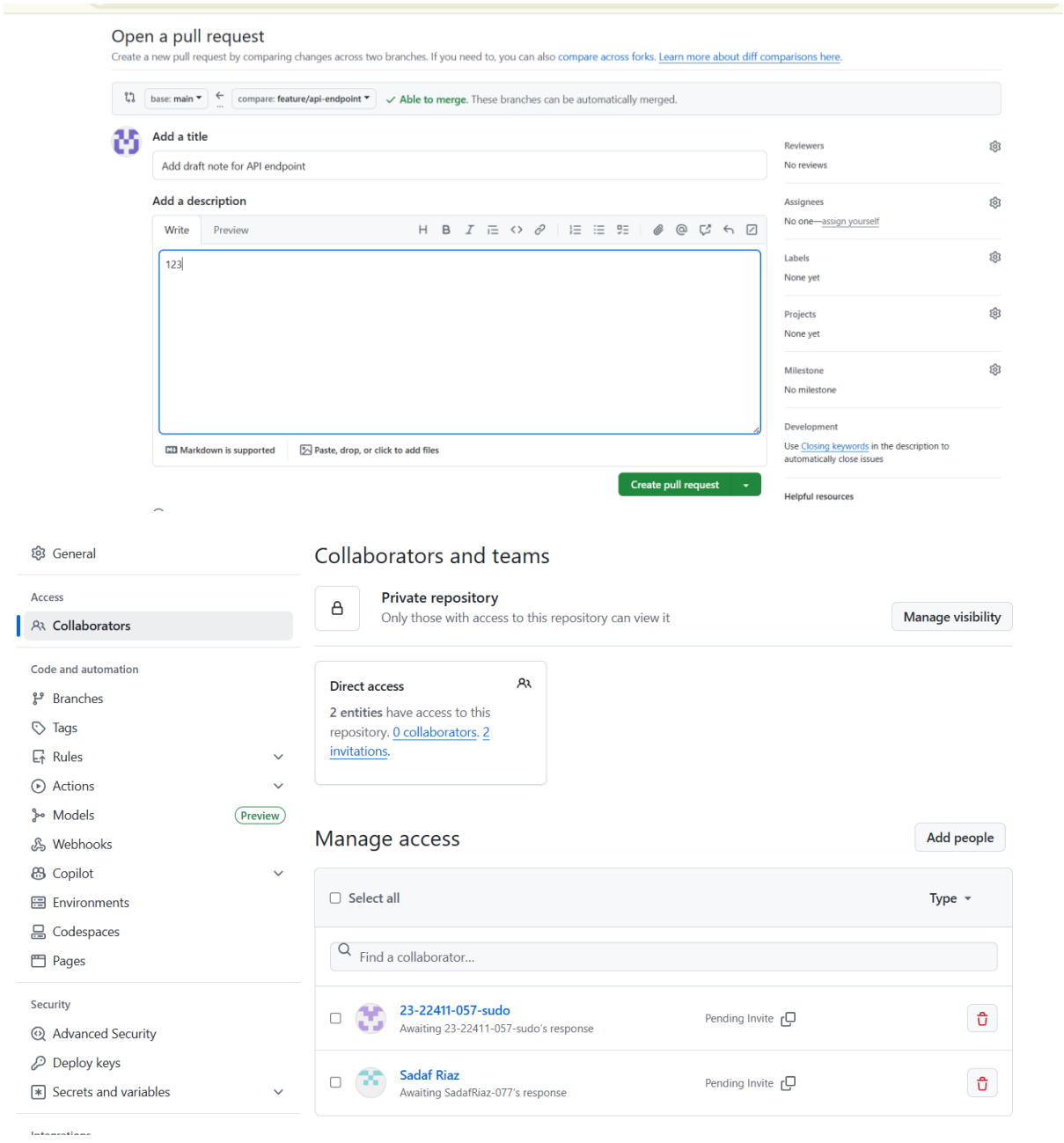
- **Bonus**

```
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (main)
$ git checkout -b collab
git push origin collab
Switched to a new branch 'collab'
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: Create a pull request for 'collab' on GitHub by visiting:
remote:      https://github.com/23-22411-061-rgb/lab-2/pull/new/collab
remote:
To github.com:23-22411-061-rgb/lab-2.git
 * [new branch]      collab -> collab
```

```
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (collab)
$

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (collab)
$ git checkout collab
git pull origin collab
Already on 'collab'
From github.com:23-22411-061-rgb/lab-2
 * branch            collab     -> FETCH_HEAD
Already up to date.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (collab)
$ git add notes.txt
git commit -m "Add Shumail's fun fact"
git push origin collab
On branch collab
nothing to commit, working tree clean
Everything up-to-date

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (collab)
$ git add notes.txt

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (collab)
$ git commit -m "Add Shumail's fun fact"
On branch collab
nothing to commit, working tree clean

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (collab)
$ git push origin collab
Everything up-to-date
```

```
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (collab)
$ git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (main)
$ git pull origin main
From github.com:23-22411-061-rgb/lab-2
 * branch            main       -> FETCH_HEAD
Already up to date.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (main)
$ git merge collab
Already up to date.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/lab-2 (main)
$ git push origin main
Everything up-to-date
```

- **Task 12: word**


Open a pull request
Create a new pull request by comparing changes across two branches. If you need to, you can also compare across forks. Learn more about diff comparisons here.
base: main
compare: feature/api-endpoint
Able to merge. These branches can be automatically merged.
Add a title
Add draft note for API endpoint
Add a description
Write
Preview
123
Markdown is supported
Paste, drop, or click to add files
Create pull request
Reviewers
No reviews
Assignees
No one—assign yourself
Labels
None yet
Projects
None yet
Milestone
No milestone
Development
Use Closing keywords in the description to automatically close issues
Helpful resources
General
Access
Collaborators
Code and automation
Branches
Tags
Rules
Actions
Models
Preview
Webhooks
Copilot
Environments
Codespaces
Pages
Security
Advanced Security
Deploy keys
Secrets and variables
Collaborators and teams
Private repository
Only those with access to this repository can view it
Manage visibility
Direct access
2 entities have access to this repository. 0 collaborators. 2 invitations.
Manage access
Add people
Select all
Type
Find a collaborator...
23-22411-057-sudo
Awaiting 23-22411-057-sudo's response
Pending Invite
Sadaf Riaz
Awaiting SadafRiaz-077's response
Pending Invite

23-22411-061-rgb invited you to collaborate on 23-22411-061-rgb/lab-2

Accept invitation | Decline invitation

Owners of lab-2 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 23-22411-061-rgb

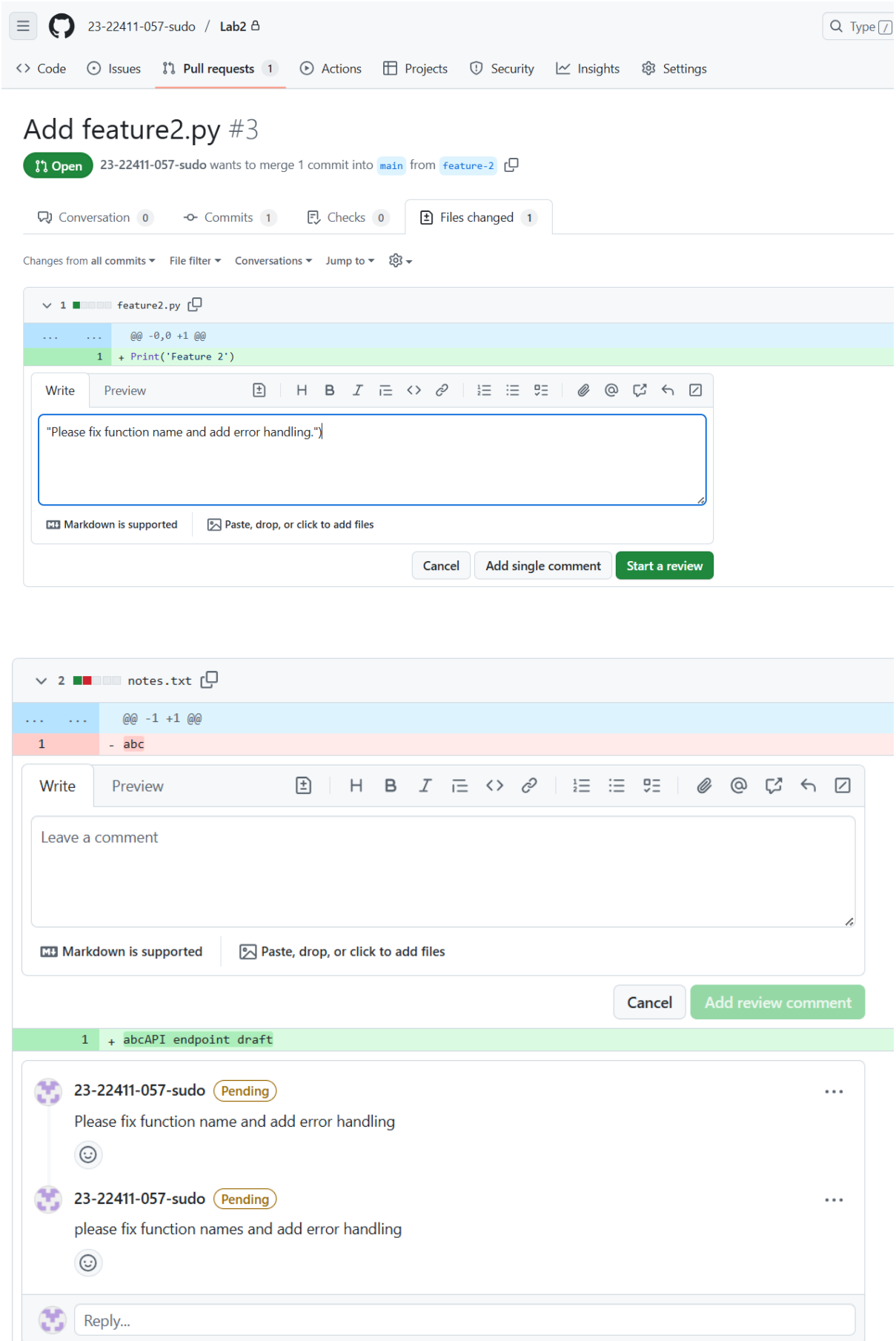
lab-2 Private

Watch

main | 11 Branches | 0 Tags | Go to file t | Add file | Code

23-22411-061-rgb Merge branch 'feature-1' d6bb084 · 10 hours ago 17 Commits

| | | |
|---|---|---|
| git_config_list.png | Add files via upload | 13 hours ago |
| git_identity.png | Add files via upload | 13 hours ago |
| git_installation.png | Added all lab screenshots | 12 hours ago |
| github_sshkey.png | Add files via upload | 13 hours ago |
| main.py | Add new function to main.py | 11 hours ago |
| notes.txt | Add notes.txt | 11 hours ago |
| repo_private.png | Add files via upload | 13 hours ago |
| ssh_clone.png | Add files via upload | 13 hours ago |
| ssh_keygen.png | Add files via upload | 13 hours ago |


23-22411-057-sudo / Lab2
Type /
Code
Issues
Pull requests 1
Actions
Projects
Security
Insights
Settings
Add feature2.py #3
Open
23-22411-057-sudo wants to merge 1 commit into main from feature-2
Conversation 0
Commits 1
Checks 0
Files changed 1
Changes from all commits
File filter
Conversations
Jump to
1 feature2.py
@@ -0,0 +1 @@
1 + Print('Feature 2')
Write
Preview
"Please fix function name and add error handling.")
Markdown is supported
Paste, drop, or click to add files
Cancel
Add single comment
Start a review
2 notes.txt
@@ -1 +1 @@
1 - abc
Write
Preview
Leave a comment
Markdown is supported
Paste, drop, or click to add files
Cancel
Add review comment
1 + abcAPI endpoint draft
23-22411-057-sudo Pending
Please fix function name and add error handling
23-22411-057-sudo Pending
please fix function names and add error handling
Reply...

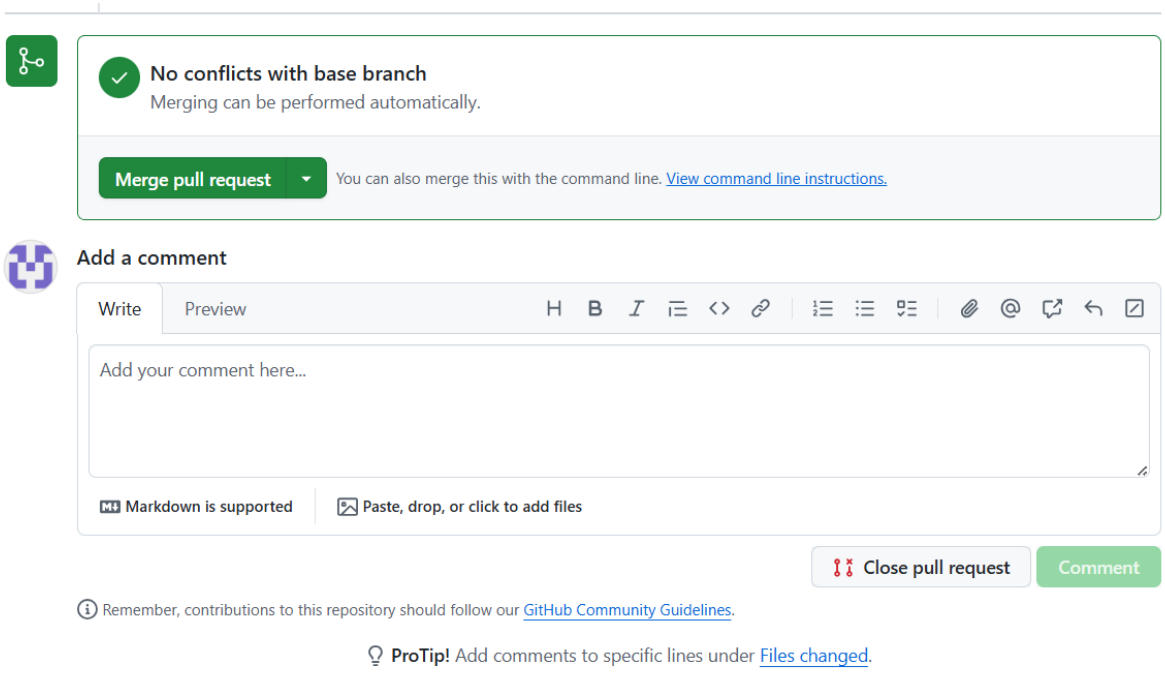
1. **Reviewer Actions and Approves:**

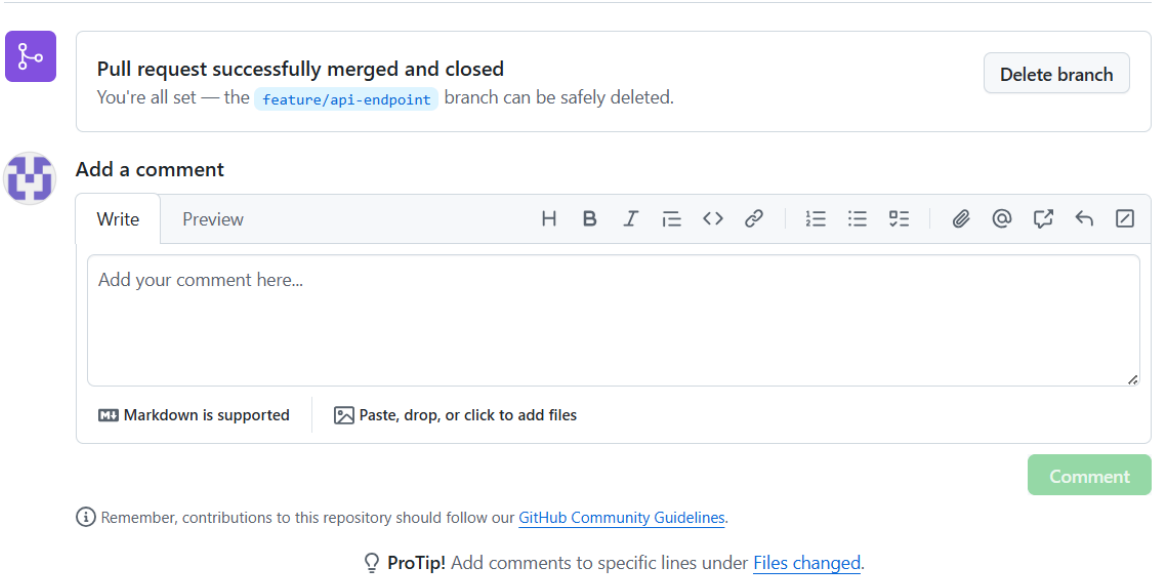
```
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (feature-2)
$ git checkout feature-hello
error: pathspec 'feature-hello' did not match any file(s) known to git

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (feature-2)
$ ^C

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (feature-2)
$ git checkout -b feature-hello
Switched to a new branch 'feature-hello'

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (feature-hello)
$ echo "def say_hello():\n    print('Hello World')" > main.py

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (feature-hello)
$ cat main.py
def say_hello():\n    print('Hello World')

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (feature-hello)
$ git add main.py
warning: in the working copy of 'main.py', LF will be replaced by CRLF the next time Git touches it

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (feature-hello)
$ git commit -m "Add say_hello function with fixed message"
[feature-hello 9d1eb44] Add say_hello function with fixed message
 1 file changed, 1 insertion(+), 1 deletion(-)

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (feature-hello)
$ git push origin feature-hello
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 8 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 331 bytes | 66.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
remote:
remote: Create a pull request for 'feature-hello' on GitHub by visiting:
remote:      https://github.com/23-22411-057-sudo/Lab2/pull/new/feature-hello
remote:
To github.com-sudo:23-22411-057-sudo/Lab2.git
 * [new branch]      feature-hello -> feature-hello

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (feature-hello)
$
```

1. **Update the file main.py**

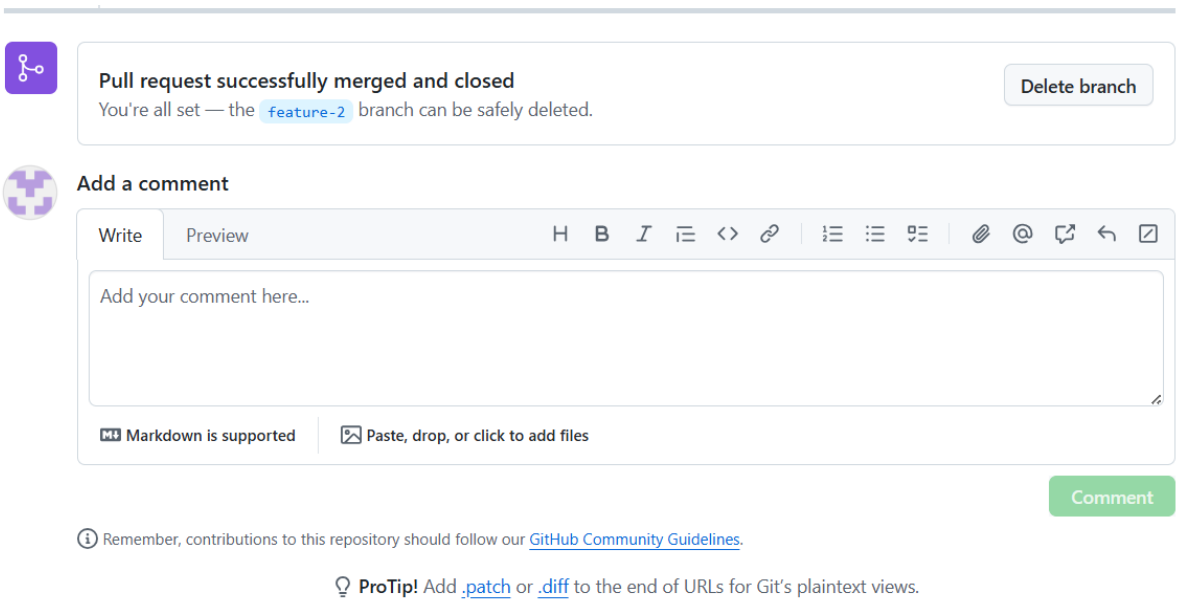
```
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (main)
$ echo "def say_hello(name):" > main.py
echo "    print(f\"Hello {name}\")" >> main.py
echo "" >> main.py
echo "if __name__ == \"__main__\":" >> main.py
echo "    say_hello(\"Shumail\")" >> main.py

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (main)
$ cat main.py
def say_hello(name):
    print(f"Hello {name}")

if __name__ == "__main__":
    say_hello("Shumail")

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (main)
$ git add main.py
warning: in the working copy of 'main.py', LF will be replaced by CRLF the next
time Git touches it

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (main)
$ git commit -m "Update say_hello test to use 'Shumail'"
[main 89beb98] Update say_hello test to use 'Shumail'
 1 file changed, 5 insertions(+), 1 deletion(-)

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (main)
$ git push origin feature-hello
Everything up-to-date

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (main)
$
```

**Merge the PR:**






**2. Branch handling after merge**
**Delete the branch**



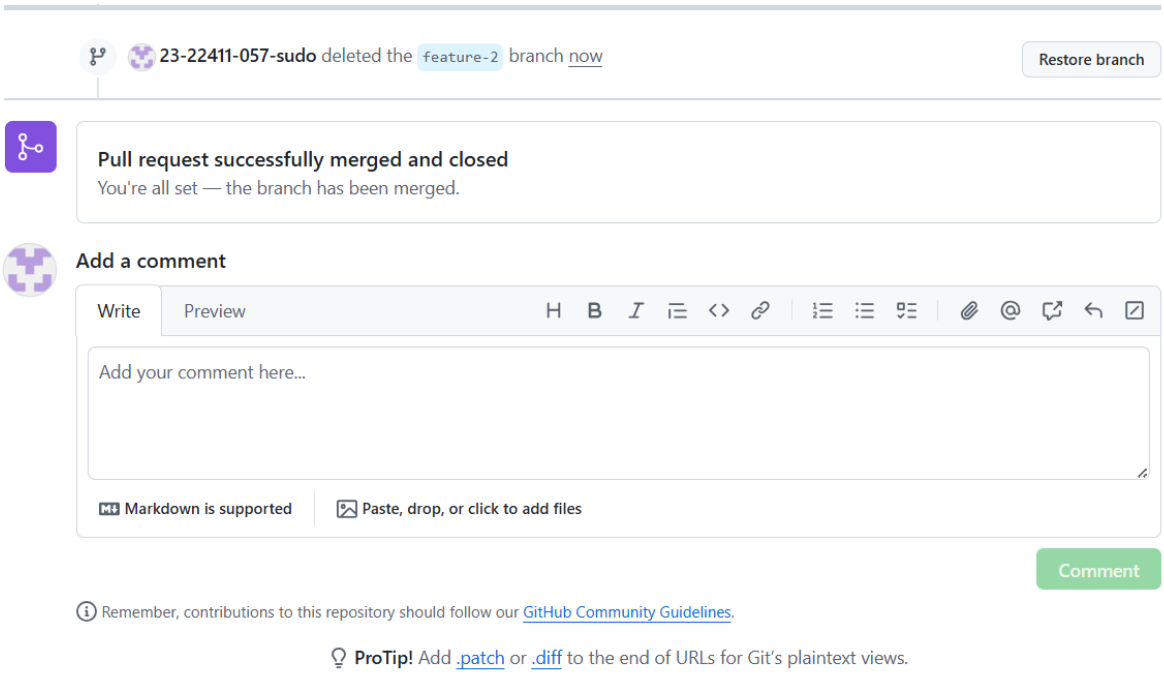

**Keep the branch**

- **Keep the branch if you plan more work on it.**
- **Document the reason in a file called REVIEW_NOTES.md**

```
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (feature-hello)
$ echo "# REVIEW_NOTES.md" > REVIEW_NOTES.md
echo "" >> REVIEW_NOTES.md
echo "## feature-hello branch" >> REVIEW_NOTES.md
echo "- Kept after merge for possible future enhancements." >> REVIEW_NOTES.md
echo "- Original change: Updated say_hello() to accept a name parameter." >> REVIEW_NOTES.md

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (feature-hello)
$ cat REVIEW_NOTES.md
# REVIEW_NOTES.md

## feature-hello branch
- Kept after merge for possible future enhancements.
- Original change: Updated say_hello() to accept a name parameter.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (feature-hello)
$ git add REVIEW_NOTES.md
git commit -m "Add branch handling notes after PR merge"
git push origin feature-hello
warning: in the working copy of 'REVIEW_NOTES.md', LF will be replaced by CRLF the next time Git touches it
[feature-hello 1271070] Add branch handling notes after PR merge
 1 file changed, 5 insertions(+)
 create mode 100644 REVIEW_NOTES.md
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 8 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 440 bytes | 88.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To github.com-sudo:23-22411-057-sudo/Lab2.git
   289a0bd..1271070  feature-hello -> feature-hello

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (feature-hello)
```

- **Task 13: Branch Cleanup Best Practices**

## Delete the Remote Branch via GitHub UI




**Git Bash command to verify deletion (optional)**

```
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (feature-hello)
$

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (feature-hello)
$ git fetch -p
From github.com-sudo:23-22411-057-sudo/Lab2
 - [deleted]         (none)                -> origin/feature-2
remote: Enumerating objects: 4, done.
remote: Counting objects: 100% (4/4), done.
remote: Compressing objects: 100% (4/4), done.
remote: Total 4 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (4/4), 3.42 KiB | 102.00 KiB/s, done.
   7eec70a..cfbe442  feature/db-connection -> origin/feature/db-connection
   a28b864..2d17804  main                  -> origin/main

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (feature-hello)
$
```

**Update your Local Repository**

```
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (main)
$ git branch -d feature-hello
error: the branch 'feature-hello' is not fully merged
hint: If you are sure you want to delete it, run 'git branch -D feature-hello'
hint: Disable this message with "git config set advice.forceDeleteBranch false"

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (main)
$ git branch
  bugfix/header-error
  bugfix/user-auth-error
  collab
  develop
  feature-1
  feature-2
  feature-hello
  feature/db-connection
  feature/login-page
* main
  staging

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (main)
$
```

**Exam Evaluation Questions**

**Q1_branch_created**

```
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab1 (master)
$ git checkout -b Q1-branch
Switched to a new branch 'Q1-branch'

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab1 (Q1-branch)
$
```

**Q1_commit_done**

```
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab1 (Q1-branch)
$ echo "This is a test for Q1" >> notes.txt

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab1 (Q1-branch)
$ git add notes.txt
warning: in the working copy of 'notes.txt', LF will be replaced by CRLF the
t time Git touches it

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab1 (Q1-branch)
$ git commit -m "Q1: Added test note"
[Q1-branch e59ac6b] Q1: Added test note
 1 file changed, 1 insertion(+)
 create mode 100644 notes.txt

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab1 (Q1-branch)
$
```

**Q1_merge_done**

```
Syed@DESKTOP-S5OGK51 MINGW64 ~ (master)
$ git checkout -b Q1-branch
Switched to a new branch 'Q1-branch'

Syed@DESKTOP-S5OGK51 MINGW64 ~ (Q1-branch)
$ git checkout main
error: pathspec 'main' did not match any file(s) known to git

Syed@DESKTOP-S5OGK51 MINGW64 ~ (Q1-branch)
$ git merge Q1-branch
Already up to date.

Syed@DESKTOP-S5OGK51 MINGW64 ~ (Q1-branch)
$
```

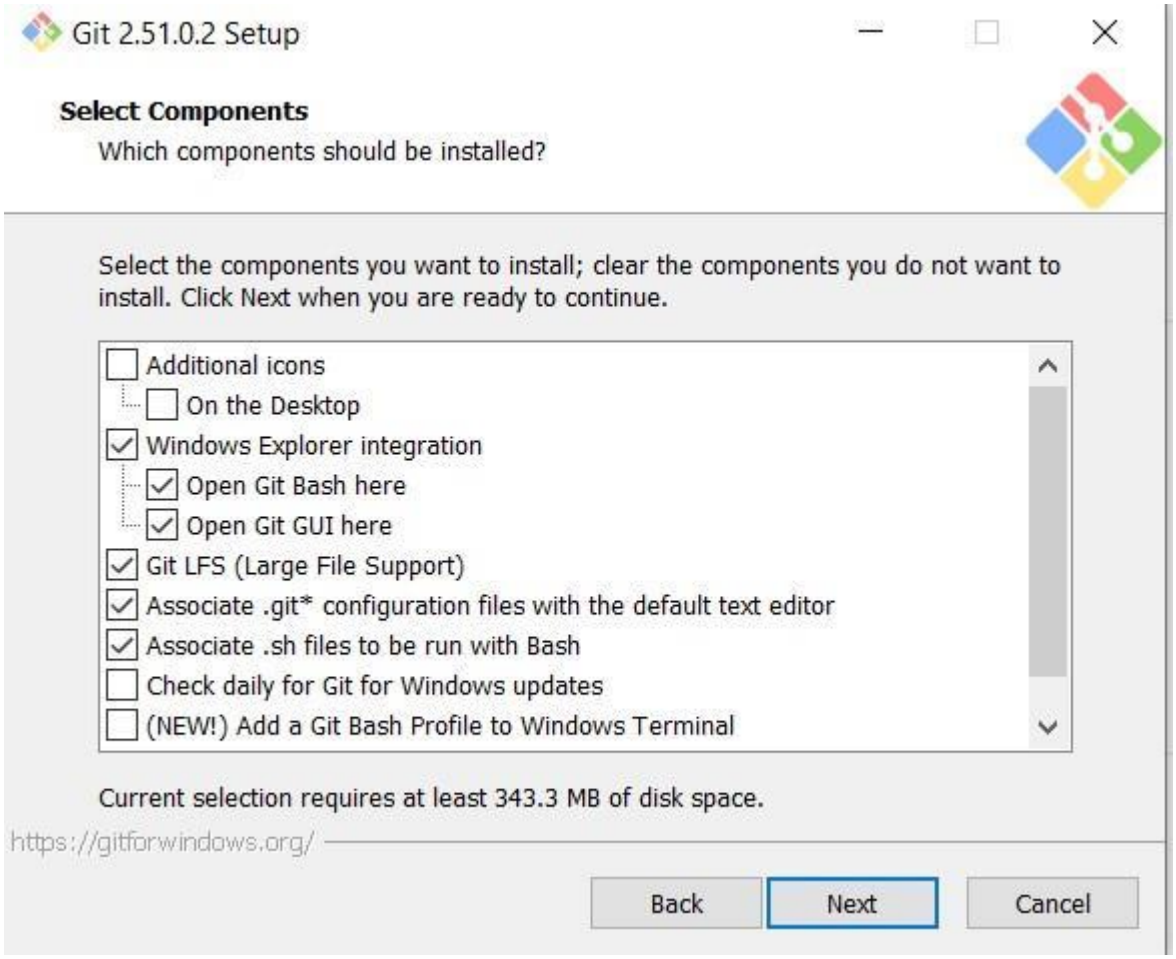
**Q1_merge_history**

```
Syed@DESKTOP-S5OGK51 MINGW64 ~ (Q1-branch)
$ git log --oneline --graph --decorate --all
* 4d64cc5 (HEAD -> Q1-branch, master) Initial commit

Syed@DESKTOP-S5OGK51 MINGW64 ~ (Q1-branch)
$
```

**Q2_branches_created.**

```
Syed@DESKTOP-S5OGK51 MINGW64 ~ (Q1-branch)
$ git checkout main
error: pathspec 'main' did not match any file(s) known to git

Syed@DESKTOP-S5OGK51 MINGW64 ~ (Q1-branch)
$ git checkout -b develop
Switched to a new branch 'develop'

Syed@DESKTOP-S5OGK51 MINGW64 ~ (develop)
$ git checkout -b staging
Switched to a new branch 'staging'

Syed@DESKTOP-S5OGK51 MINGW64 ~ (staging)
$
```

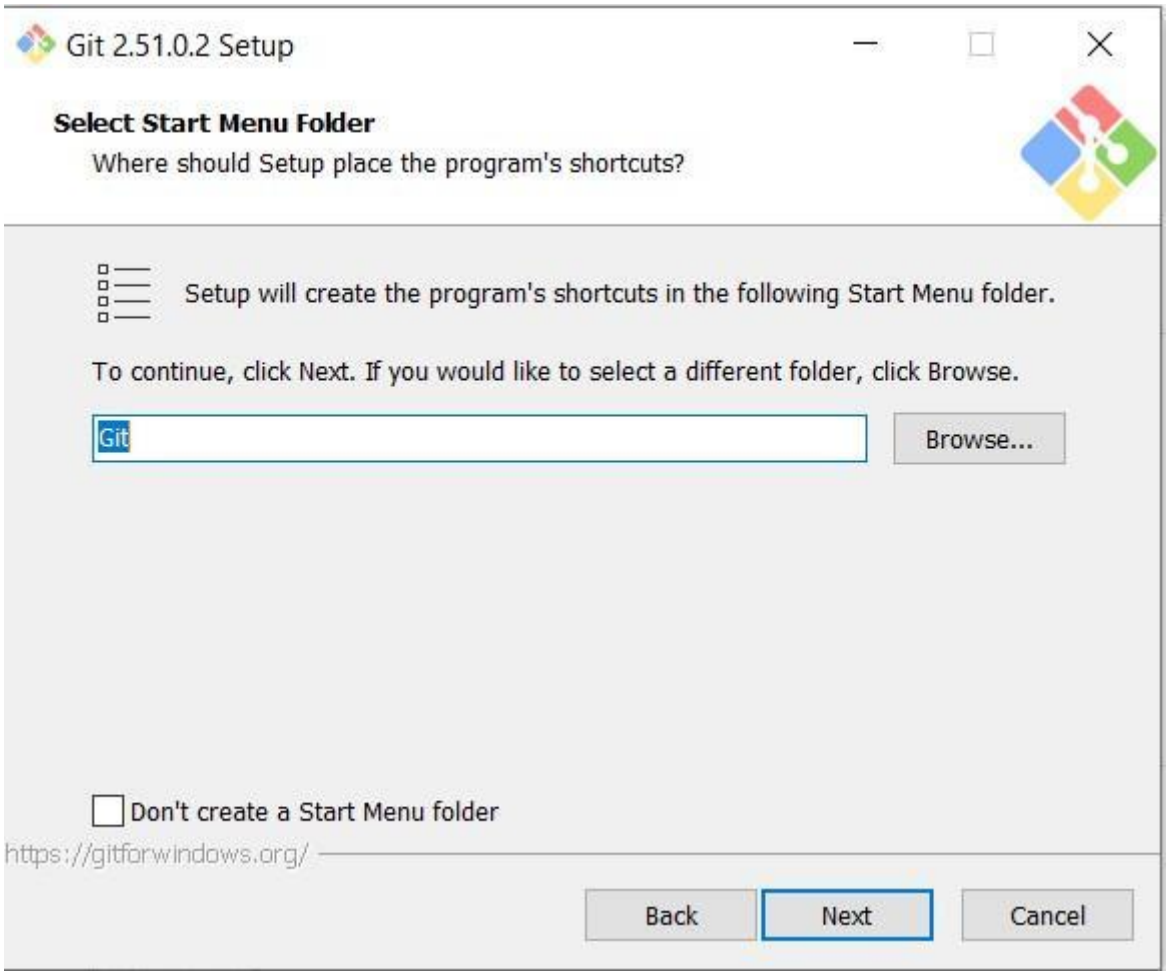
**Q2_feature_branch_commit**




**Q2_merge_into_develop**

```
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (develop)
$ git checkout develop
Already on 'develop'

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (develop)
$ git pull origin develop
From github.com-sudo:23-22411-057-sudo/Lab2
 * branch            develop    -> FETCH_HEAD
Already up to date.
e
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (develop)
$ git merge feature/login-page
Already up to date.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (develop)
$ git push origin develop
Everything up-to-date

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (develop)
$ git push origin staging
Everything up-to-date

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (develop)
$ git merge develop
Already up to date.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (develop)
$ git push origin staging
Everything up-to-date
m
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (develop)
$ git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (main)
$ git pull origin main
From github.com-sudo:23-22411-057-sudo/Lab2
 * branch            main       -> FETCH_HEAD
Already up to date.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (main)
$ git merge staging
Already up to date.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (main)
$ git push origin main
Everything up-to-date

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (main)
$ git checkout staging
Switched to branch 'staging'

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (staging)
$ git pull origin staging
From github.com-sudo:23-22411-057-sudo/Lab2
 * branch            staging    -> FETCH_HEAD
```

**Q2_merge_into_staging**




**Q2_merge_into_main**

```
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (main)
$ git pull origin main
From github.com-sudo:23-22411-057-sudo/Lab2
 * branch            main       -> FETCH_HEAD
Already up to date.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (main)
$ git merge staging
Already up to date.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (main)
$ git push origin main
Everything up-to-date

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (main)
$ git checkout staging
Switched to branch 'staging'

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (staging)
$ git pull origin staging
From github.com-sudo:23-22411-057-sudo/Lab2
 * branch            staging    -> FETCH_HEAD
Already up to date.
g
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (staging)
$ git merge develop
Already up to date.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (staging)
$ git push origin staging
Everything up-to-date
gi
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (staging)
$ git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (main)
$ git pull origin main
From github.com-sudo:23-22411-057-sudo/Lab2
 * branch            main       -> FETCH_HEAD
Already up to date.
s
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (main)
$ git merge staing
merge: staing - not something we can merge

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (main)
$ git merge staging
Already up to date.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (main)
$ git push origin main
Everything up-to-date

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (main)
$
```

## Q2_stage_verification

```
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (collab)
$ git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (main)
$ git pull origin main
From github.com-sudo:23-22411-057-sudo/Lab2
 * branch            main       -> FETCH_HEAD
Already up to date.
cl
Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (main)
$ git merge collab
Already up to date.

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (main)
$ git push origin main
Everything up-to-date

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (main)
$ git checkout -b feature-2
Switched to a new branch 'feature-2'

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (feature-2)
$ echo "Print('Feature 2')" > feature2.py

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (feature-2)
$ git add feature2.py
warning: in the working copy of 'feature2.py', LF will be replaced by CRLF the n
ext time Git touches it

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (feature-2)
$ git commit -m "Add feature2.py"
[feature-2 78df11b] Add feature2.py
 1 file changed, 1 insertion(+)
 create mode 100644 feature2.py

Syed@DESKTOP-S5OGK51 MINGW64 ~/Documents/Lab2 (feature-2)
$ git push origin feature-2
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 8 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 299 bytes | 74.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
remote:
remote: Create a pull request for 'feature-2' on GitHub by visiting:
remote:      https://github.com/23-22411-057-sudo/Lab2/pull/new/feature-2
remote:
To github.com-sudo:23-22411-057-sudo/Lab2.git
 * [new branch]      feature-2 -> feature-2
```

## Q3_branches_modified

```
Syed@DESKTOP-S5OGK51 MINGW64 ~ (staging)
$ git checkout -b collab-branch-A
Switched to a new branch 'collab-branch-A'

Syed@DESKTOP-S5OGK51 MINGW64 ~ (collab-branch-A)
$ echo "Line from User A" >> team.txt

Syed@DESKTOP-S5OGK51 MINGW64 ~ (collab-branch-A)
$ echo "Line from User A" >> team.txt

Syed@DESKTOP-S5OGK51 MINGW64 ~ (collab-branch-A)
$ git add team.txt
warning: in the working copy of 'team.txt', LF will be replaced by CRLF the next
 time Git touches it

Syed@DESKTOP-S5OGK51 MINGW64 ~ (collab-branch-A)
$ git commit -m "User A: Added line"
[collab-branch-A f247d9d] User A: Added line
 1 file changed, 2 insertions(+)
 create mode 100644 team.txt

Syed@DESKTOP-S5OGK51 MINGW64 ~ (collab-branch-A)
$ git checkout -b collab-branch-B main
fatal: 'main' is not a commit and a branch 'collab-branch-B' cannot be created f
rom it

Syed@DESKTOP-S5OGK51 MINGW64 ~ (collab-branch-A)
$ echo "Line from User B" >> team.txt

Syed@DESKTOP-S5OGK51 MINGW64 ~ (collab-branch-A)
$ git add team.txt
warning: in the working copy of 'team.txt', LF will be replaced by CRLF the next
 time Git touches it

Syed@DESKTOP-S5OGK51 MINGW64 ~ (collab-branch-A)
$ git commit -m "User B: Added line"
[collab-branch-A 989c8f6] User B: Added line
 1 file changed, 1 insertion(+)

Syed@DESKTOP-S5OGK51 MINGW64 ~ (collab-branch-A)
$
```

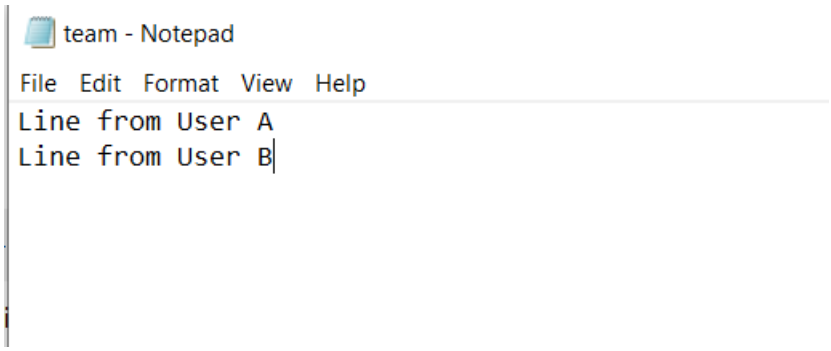
**Q3_merge_conflict**

```
Syed@DESKTOP-S5OGK51 MINGW64 ~ (collab-branch-A)
$ git checkout collab-branch-A
Already on 'collab-branch-A'

Syed@DESKTOP-S5OGK51 MINGW64 ~ (collab-branch-A)
$ git merge collab-branch-B
merge: collab-branch-B - not something we can merge

Syed@DESKTOP-S5OGK51 MINGW64 ~ (collab-branch-A)
$
```

**Q3_conflict_resolved**

```
Syed@DESKTOP-S5OGK51 MINGW64 ~ (collab-branch-A)
$ git add team.txt

Syed@DESKTOP-S5OGK51 MINGW64 ~ (collab-branch-A)
$ git commit -m "Resolved conflict: kept both lines"
warning: could not open directory 'Application Data/': Permission denied
warning: could not open directory 'Cookies/': Permission denied
warning: could not open directory 'Local Settings/': Permission denied
warning: could not open directory 'My Documents/': Permission denied
warning: could not open directory 'NetHood/': Permission denied
warning: could not open directory 'PrintHood/': Permission denied
warning: could not open directory 'Recent/': Permission denied
warning: could not open directory 'SendTo/': Permission denied
warning: could not open directory 'Start Menu/': Permission denied
warning: could not open directory 'Templates/': Permission denied
On branch collab-branch-A
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        .Icecream Video Editor/
        .android/
        .bash_history
        .config/
        .dotnet/
        .gitconfig
        .lesshst
        .nuget/
        .packettracer
        .ssh/
        .viminfo
        .vscode/
        3D Objects/
        AppData/
        Contacts/
        Desktop/
        Documents/
        Downloads/
        Favorites/
        IntelGraphicsProfiles/
        Lab2/
        Links/
        Music/
        NTUSER.DAT
```

**Q3_final_file**

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