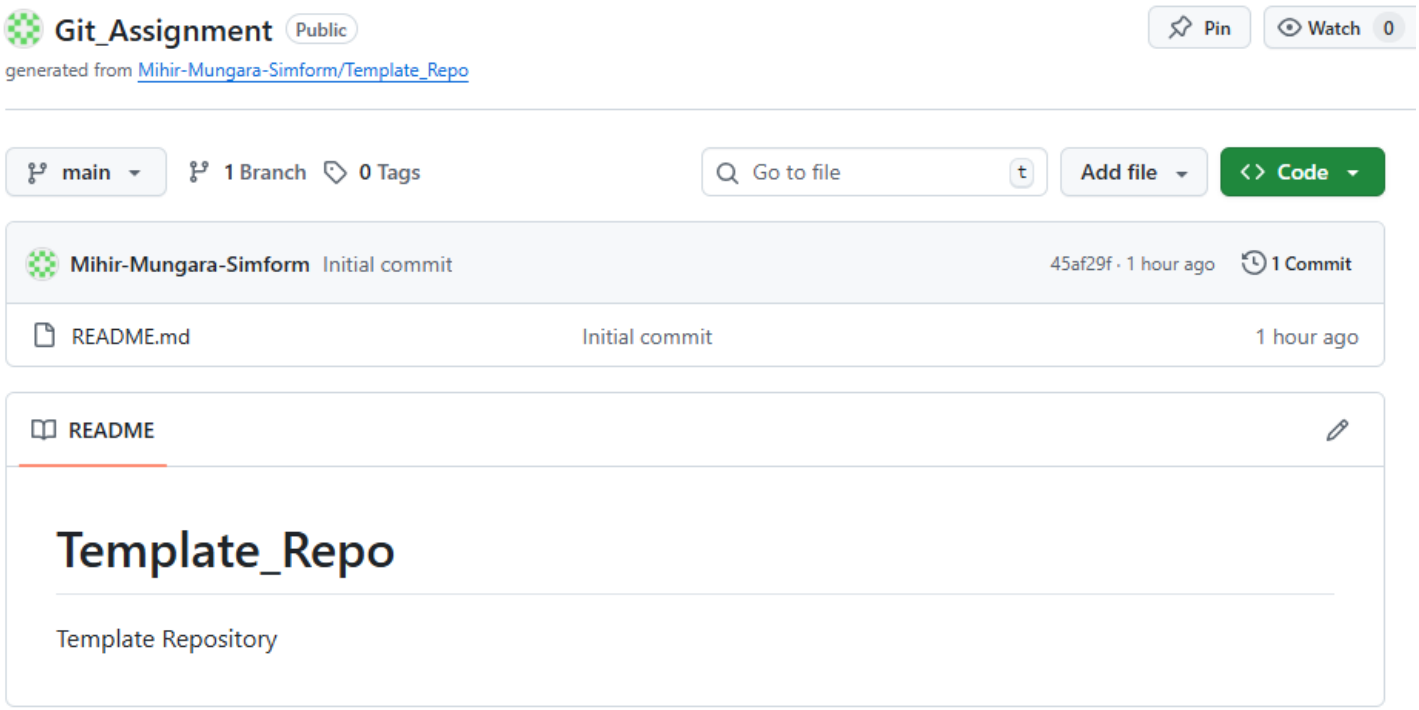
Name: Mihir Mungara

Github Repo: [Mihir-Mungara-Simform/Git_Assignment]

Created a new repository using template :-



Setting Up Git Flow :-

```
mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (master)
$ git flow init
No branches exist yet. Base branches must be created now.
Branch name for production releases: [master] main
Branch name for "next release" development: [develop]

How to name your supporting branch prefixes?
Feature branches? [feature/]
Release branches? [release/]
Hotfix branches? [hotfix/]
Support branches? [support/]
Version tag prefix? []

mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (develop)
$
```

Created a feature branch for project setup with the proper Zoho task ID :-

```
mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (develop)
$ git flow feature start TE-T84_Project_Setup
Switched to a new branch 'feature/TE-T84_Project_Setup'

Summary of actions:
- A new branch 'feature/TE-T84_Project_Setup' was created, based on 'develop'
- You are now on branch 'feature/TE-T84_Project_Setup'

Now, start committing on your feature. When done, use:

     git flow feature finish TE-T84_Project_Setup
```

Created a sub-branch from the project setup branch to perform squash, reset, rebase and cherrypick :-

```
mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (feature/TE-T84_Project_Setup)
$ git checkout -b TE-T84_Project_Testing
Switched to a new branch 'TE-T84_Project_Testing'
```

Done commits to perform squash, reset, rebase and cherrypick :-

```
mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84_Project_Testing)
$ git log
commit 48c57da9b8b3277aaf7d408cb54da2a3af78a8d2
Author: mihir mungara <mihir.mungara@simformsolutions.com>
Date:   Thu Jan 29 13:49:52 2026 +0530

    file5 created

commit 1b9ec6aac8bfa9faa38e91ace71d53556b40eec4
Author: mihir mungara <mihir.mungara@simformsolutions.com>
Date:   Thu Jan 29 13:49:25 2026 +0530

    file4 created

commit 83ee366df99526d7ad0c37e958e5a7581b737f44
Author: mihir mungara <mihir.mungara@simformsolutions.com>
Date:   Thu Jan 29 13:47:40 2026 +0530

    file3 created

commit d357bb3798ded0ddce0a678a276c152cfdd688b5
Author: mihir mungara <mihir.mungara@simformsolutions.com>
Date:   Thu Jan 29 13:47:14 2026 +0530

    file2 created

commit 6ded8b651c1c8b4382f1d7bc5127d6b423691dc5
Author: mihir mungara <mihir.mungara@simformsolutions.com>
Date:   Thu Jan 29 13:46:34 2026 +0530

    file1 created

commit c209753d01b0ef119029bc1fcccabe81b61251ab
Author: mihir mungara <mihir.mungara@simformsolutions.com>
Date:   Thu Jan 29 13:41:42 2026 +0530

    Initial commit
```

Squashing two commits into one :-

```
mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84_Project_Testing)
$ git rebase -i HEAD~2
[detached HEAD 5e04747] File4 and File5 created
 Date: Thu Jan 29 13:49:25 2026 +0530
warning: LF will be replaced by CRLF in file4.txt.
The file will have its original line endings in your working directory.
 2 files changed, 2 insertions(+)
 create mode 100644 file4.txt
 create mode 100644 file5.txt
Successfully rebased and updated refs/heads/TE-T84_Project_Testing.
```

```
p 1b9ec6a file4 created
s 48c57da file5 created

# Rebase 83ee366..48c57da onto 83ee366 (2 command(s))
#
# Commands:
# p, pick = use commit
# r, reword = use commit, but edit the commit message
# e, edit = use commit, but stop for amending
# s, squash = use commit, but meld into previous commit
# f, fixup = like "squash", but discard this commit's log message
# x, exec = run command (the rest of the line) using shell
#
# These lines can be re-ordered; they are executed from top to bottom.
#
# If you remove a line here THAT COMMIT WILL BE LOST.
#
# However, if you remove everything, the rebase will be aborted.
#
# Note that empty commits are commented out
~
~
```

Wrote New Commit Message :-

```
File4 and File5 created

# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
#
# Date:      Thu Jan 29 13:49:25 2026 +0530
#
# rebase in progress; onto 83ee366
# You are currently editing a commit while rebasing branch 'TE-T84_Project_Testing' on '83ee366'.
#
# Changes to be committed:
#       new file:   file4.txt
#       new file:   file5.txt
#
```

```
mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84_Project_Testing)
$ git log --oneline
5e04747 File4 and File5 created
83ee366 file3 created
d357bb3 file2 created
6ded8b6 file1 created
c209753 Initial commit
```

Performed Reset on latest commit :-

```
mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84_Project_Testing)
$ git reset --hard HEAD~1
HEAD is now at 83ee366 file3 created
```

```
mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84_Project_Testing)
$ git log --oneline
83ee366 file3 created
d357bb3 file2 created
6ded8b6 file1 created
c209753 Initial commit
```

Performed Rebase on TE-T84_ Project_Setup from TE-T84_Project_Testing:-

```
mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84_Project_Testing)
$ git checkout feature/TE-T84_Project_Setup
Switched to branch 'feature/TE-T84_Project_Setup'

mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (feature/TE-T84_Project_Setup)
$ git rebase TE-T84_Project_Testing
First, rewinding head to replay your work on top of it...
Fast-forwarded feature/TE-T84_Project_Setup to TE-T84_Project_Testing.
```

Performed Cherry-Pick by taking commit in TE-T84_ Project_Setup from TE-T84_Project_Testing :-

```
mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (feature/TE-T84_Project_Setup|CHERRY-PICKING)
$ git reset --hard 83ee366
HEAD is now at 83ee366 file3 created

mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (feature/TE-T84_Project_Setup)
$ git reset --hard d357bb3
HEAD is now at d357bb3 file2 created

mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (feature/TE-T84_Project_Setup)
$ git cherry-pick 83ee366df99526d7ad0c37e958e5a7581b737f44
[feature/TE-T84_Project_Setup 750129e] file3 created
 Date: Thu Jan 29 13:47:40 2026 +0530
 1 file changed, 1 insertion(+)
 create mode 100644 file3.txt
```

1) **Created a Branch from the Develop.**

```
mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (develop)
$ git checkout -b TE-T84_Branch1
Switched to a new branch 'TE-T84_Branch1'
```

2) **Added a commit message hook to the repo.**

```
mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84_Branch1)
$ code .git/hooks/commit-msg

mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84_Branch1)
$ chmod +x .git/hooks/commit-msg
```

$ commit-msg

.git > hooks > $ commit-msg

```
1   #!/bin/sh
2
3   commit_msg_file=$1
4   commit_msg=$(cat "$commit_msg_file")
5
6   if ! echo "$commit_msg" | grep -qiE "^te-t[0-9]+"; then
7       echo "ERROR: Commit message must start with Zoho ID like: te-t84"
8       exit 1
9   fi
10
11  exit 0
```

3) Performed multiple commits in the new branch

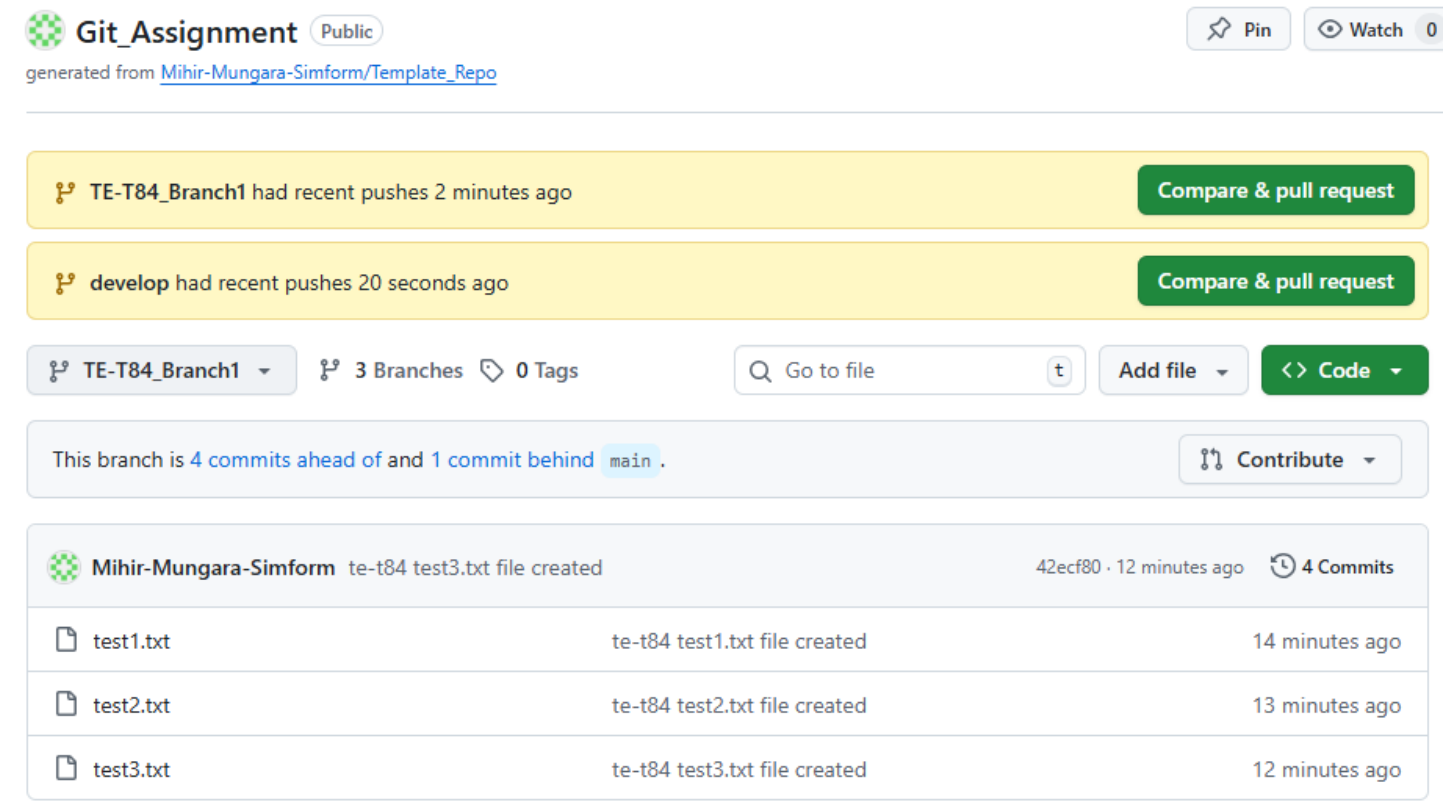
```
mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84_Branch1)
$ touch test1.txt

mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84_Branch1)
$ echo "test1 file contents" >> test1.txt

mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84_Branch1)
$ git add .
warning: LF will be replaced by CRLF in test1.txt.
The file will have its original line endings in your working directory.

mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84_Branch1)
$ git commit -m "test1.txt file created"
ERROR: Commit message must start with Zoho ID like: te-t84

mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84_Branch1)
$ git commit -m "te-t84 test1.txt file created"
[TE-T84_Branch1 89a945e] te-t84 test1.txt file created
warning: LF will be replaced by CRLF in test1.txt.
The file will have its original line endings in your working directory.
 1 file changed, 1 insertion(+)
 create mode 100644 test1.txt
```

```
mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84_Branch1)
$ git log --oneline
42ecf80 te-t84 test3.txt file created
5f56909 te-t84 test2.txt file created
89a945e te-t84 test1.txt file created
c209753 Initial commit
```

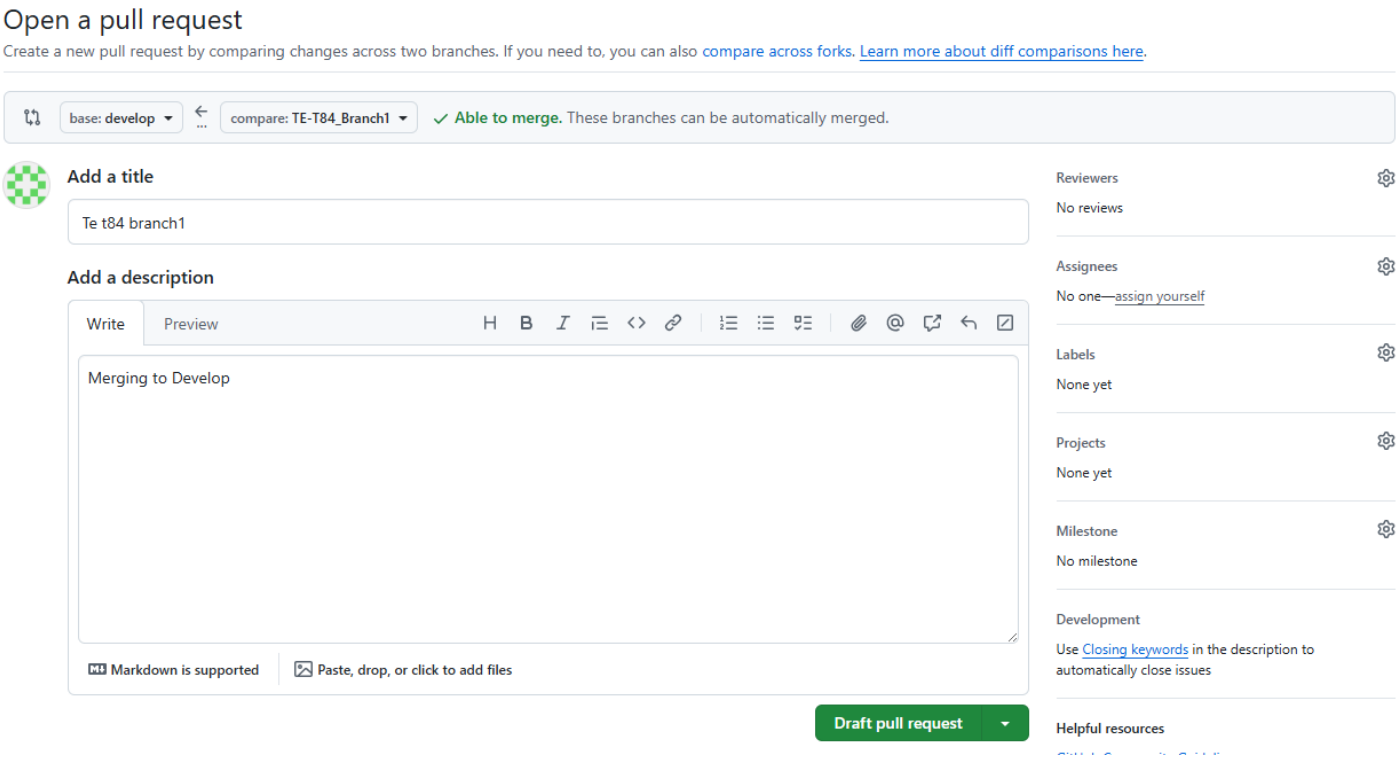
4) **Create PR to develop. And**
5) **PR should be small in size, It's recommended to do one commit per PR. However, based on the situation we can have multiple commits in PR. e.g. if someone is doing 10 bug fixes which are one-liner fixes in such cases instead of 10 different PRs you can do 10 commits in a single PR.**

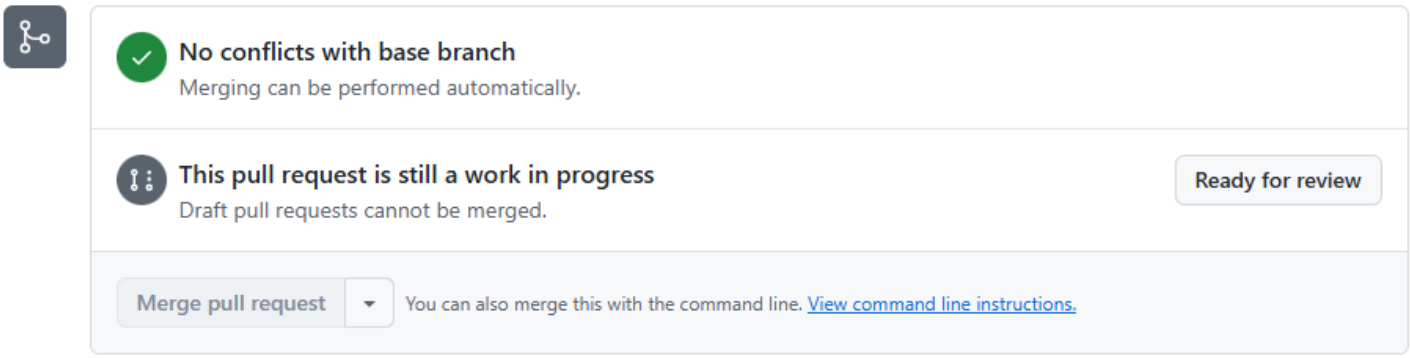
Pushed on remote repo :-

```
mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84_Branch1)
$ git push origin TE-T84_Branch1
Counting objects: 11, done.
Delta compression using up to 8 threads.
Compressing objects: 100% (6/6), done.
Writing objects: 100% (11/11), 914 bytes | 0 bytes/s, done.
Total 11 (delta 2), reused 0 (delta 0)
remote: Resolving deltas: 100% (2/2), done.
remote:
remote: Create a pull request for 'TE-T84_Branch1' on GitHub by visiting:
remote:      https://github.com/Mihir-Mungara-Simform/Git_Assignment/pull/new/TE-T84_Branch1
remote:
To git@github.com:Mihir-Mungara-Simform/Git_Assignment.git
 * [new branch]      TE-T84_Branch1 -> TE-T84_Branch1
```



Raised a Draft PR to develop and kept it in Review state :-





6) Created another branch from develop given previous PR is still in review state

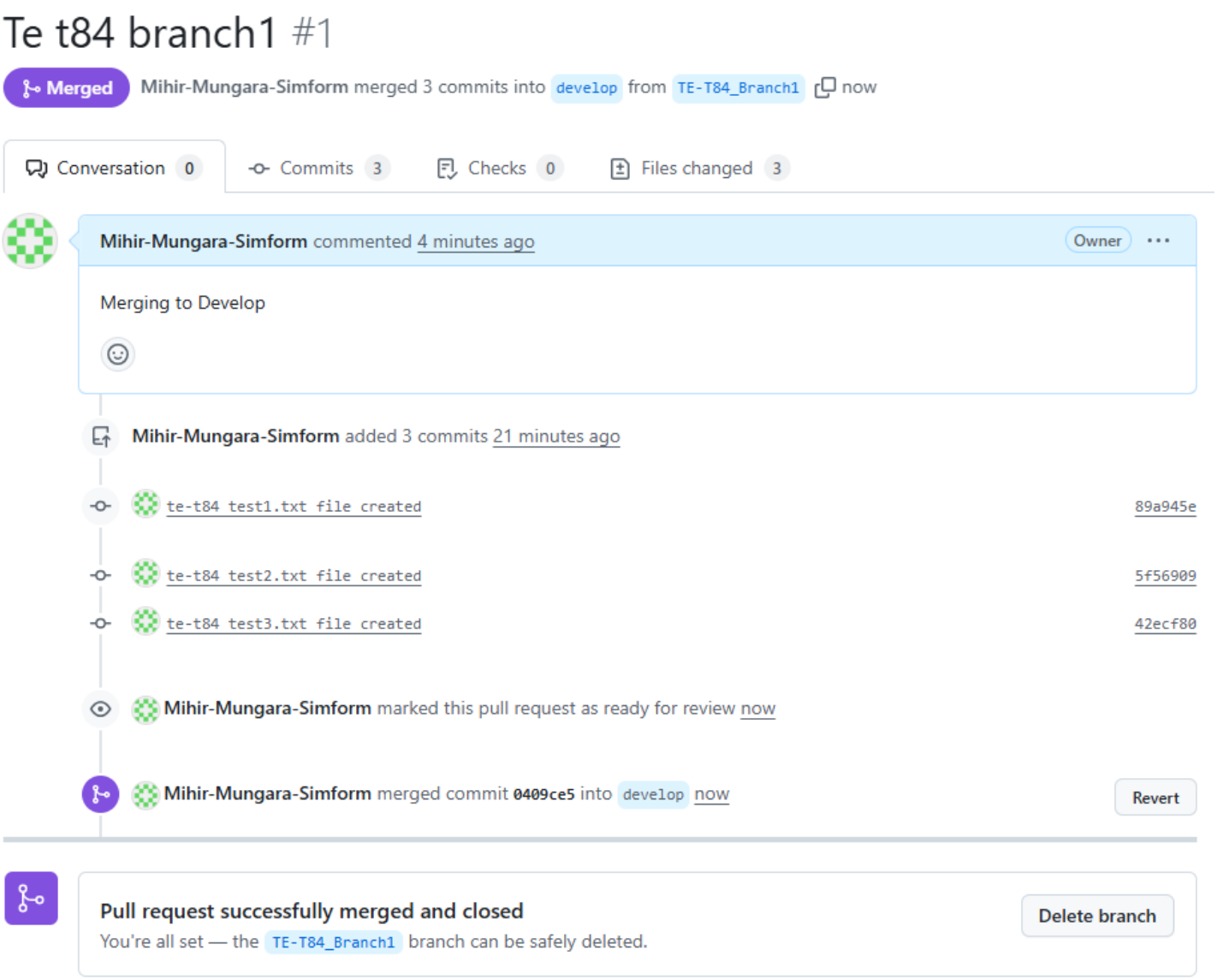
```
mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (develop)
$ git checkout develop
Already on 'develop'

mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (develop)
$ git checkout -b TE-T84-Branch2
Switched to a new branch 'TE-T84-Branch2'
```

7) Made a commit in current branch and pushed it

```
mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84-Branch2)
$ echo "Temp file contents" >> temp1.txt

mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84-Branch2)
$ git add .
warning: LF will be replaced by CRLF in temp1.txt.
The file will have its original line endings in your working directory.

mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84-Branch2)
$ git commit -m "te-t84 temp1.txt created"
[TE-T84-Branch2 bb99b3c] te-t84 temp1.txt created
warning: LF will be replaced by CRLF in temp1.txt.
The file will have its original line endings in your working directory.
 1 file changed, 1 insertion(+)
 create mode 100644 temp1.txt
```

```
mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84-Branch2)
$ git push origin TE-T84-Branch2
Counting objects: 5, done.
Delta compression using up to 8 threads.
Compressing objects: 100% (3/3), done.
Writing objects: 100% (5/5), 660 bytes | 0 bytes/s, done.
Total 5 (delta 0), reused 0 (delta 0)
remote:
remote: Create a pull request for 'TE-T84-Branch2' on GitHub by visiting:
remote:      https://github.com/Mihir-Mungara-Simform/Git_Assignment/pull/new/TE-T84-Branch2
remote:
To git@github.com:Mihir-Mungara-Simform/Git_Assignment.git
 * [new branch]      TE-T84-Branch2 -> TE-T84-Branch2
```

8) In the meantime, previous PR has been merged to develop



9) **Created a PR for the current branch given branch should be up to date with develop branch**

```
mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84-Branch2)
$ git pull origin develop
remote: Enumerating objects: 1, done.
remote: Counting objects: 100% (1/1), done.
remote: Total 1 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (1/1), done.
From github.com:Mihir-Mungara-Simform/Git_Assignment
 * branch            develop    -> FETCH_HEAD
   c209753..0409ce5  develop    -> origin/develop
Merge made by the 'recursive' strategy.
 test1.txt | 1 +
 test2.txt | 1 +
 test3.txt | 1 +
 3 files changed, 3 insertions(+)
 create mode 100644 test1.txt
 create mode 100644 test2.txt
 create mode 100644 test3.txt

mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84-Branch2)
$ git push origin TE-T84-Branch2
Counting objects: 5, done.
Delta compression using up to 8 threads.
Compressing objects: 100% (3/3), done.
Writing objects: 100% (5/5), 660 bytes | 0 bytes/s, done.
Total 5 (delta 0), reused 0 (delta 0)
remote:
remote: Create a pull request for 'TE-T84-Branch2' on GitHub by visiting:
remote:      https://github.com/Mihir-Mungara-Simform/Git_Assignment/pull/new/TE-T84-Branch2
remote:
To git@github.com:Mihir-Mungara-Simform/Git_Assignment.git
 * [new branch]      TE-T84-Branch2 -> TE-T84-Branch2
```

Te t84 branch2 #2

Draft **Mihir-Mungara-Simform** wants to merge 2 commits into `develop` from `TE-T84-Branch2`

Conversation 0 · Commits 2 · Checks 0 · Files changed 1

Mihir-Mungara-Simform commented now — Owner

No description provided.

Mihir-Mungara-Simform added 2 commits 3 minutes ago

`te-t84 temp1.txt created` `bb99b3c`

`Merge branch 'develop' of github.com:Mihir-Mungara-Simform/Git_Assign…` `ab8b12b`

No conflicts with base branch
Merging can be performed automatically.

This pull request is still a work in progress
Draft pull requests cannot be merged.

Ready for review

Merge pull request — You can also merge this with the command line. View command line instructions.

Te t84 branch2 #2

Merged **Mihir-Mungara-Simform** merged 2 commits into `develop` from `TE-T84-Branch2` now

Conversation 0 · Commits 2 · Checks 0 · Files changed 1

Mihir-Mungara-Simform commented 1 minute ago — Owner

No description provided.

Mihir-Mungara-Simform added 2 commits 4 minutes ago

`te-t84 temp1.txt created` `bb99b3c`

`Merge branch 'develop' of github.com:Mihir-Mungara-Simform/Git_Assign…` `ab8b12b`

Mihir-Mungara-Simform marked this pull request as ready for review now

Mihir-Mungara-Simform merged commit `6b73b7d` into `develop` now — Revert

Pull request successfully merged and closed
You're all set — the `TE-T84-Branch2` branch can be safely deleted.

Delete branch

10) **For any new build release added a version tag to that specific commit to keep track of each version.**

```
mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84-Branch2)
$ git tag v1.0.0 -a -m "Version 1"

mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84-Branch2)
$ git push origin v1.0.0
Counting objects: 1, done.
Writing objects: 100% (1/1), 170 bytes | 0 bytes/s, done.
Total 1 (delta 0), reused 0 (delta 0)
remote: To git@github.com:Mihir-Mungara-Simform/Git_Assignment.git
 * [new tag]         v1.0.0 -> v1.0.0

mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84-Branch2)
$ git show v1.0.0
tag v1.0.0
Tagger: mihir mungara <mihir.mungara@simformsolutions.com>
Date:   Thu Jan 29 14:31:12 2026 +0530

Version 1

commit ab8b12ba7a8feb05b906cba79e889c3cc7aa9ffe
Merge: bb99b3c 0409ce5
Author: mihir mungara <mihir.mungara@simformsolutions.com>
Date:   Thu Jan 29 14:26:37 2026 +0530

    Merge branch 'develop' of github.com:Mihir-Mungara-Simform/Git_Assignment into TE-T84-Branch2
```

11) Created 2 another branch (3rd and 4th) from develop, push read me changes to 3rd branch.

```
mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (develop)
$ git checkout -b TE-T84-Branch3
Switched to a new branch 'TE-T84-Branch3'
```

```
mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (develop)
$ git checkout -b TE-T84-Branch4
Switched to a new branch 'TE-T84-Branch4'
```

```
mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84-Branch3)
$ echo "The changes seen in readme file is done through TE-T84-Branch3" >> README.md

mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84-Branch3)
$ git add .
warning: LF will be replaced by CRLF in README.md.
The file will have its original line endings in your working directory.

mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84-Branch3)
$ git commit -m "te-t84 changes in readme.md file"
[TE-T84-Branch3 e7cbe16] te-t84 changes in readme.md file
warning: LF will be replaced by CRLF in README.md.
The file will have its original line endings in your working directory.
 1 file changed, 1 insertion(+)
 create mode 100644 README.md
```

```
mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84-Branch3)
$ git push origin TE-T84-Branch3
Counting objects: 3, done.
Delta compression using up to 8 threads.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 327 bytes | 0 bytes/s, done.
Total 3 (delta 0), reused 0 (delta 0)
remote:
remote: Create a pull request for 'TE-T84-Branch3' on GitHub by visiting:
remote:      https://github.com/Mihir-Mungara-Simform/Git_Assignment/pull/new/TE-T84-Branch3
remote:
To git@github.com:Mihir-Mungara-Simform/Git_Assignment.git
 * [new branch]      TE-T84-Branch3 -> TE-T84-Branch3
```

12) Cherry pick 3rd branch's commit to 4th branch.

```
mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84-Branch4)
$ git cherry-pick e7cbe167c7aba2ef1972fc69ea84bb691815023e
[TE-T84-Branch4 65a6059] te-t84 changes in readme.md file
 Date: Thu Jan 29 14:43:26 2026 +0530
 1 file changed, 1 insertion(+)
 create mode 100644 README.md
```

13) Changed commit message in 4th branch

```
mihir.mungara@SF-CPU-822
$ git commit --amend
[TE-T84-Branch4 e78703b] te-t84 changes in readme.md file from TE-T84-Branch4
 Date: Thu Jan 29 14:43:26 2026 +0530
 1 file changed, 1 insertion(+)
 create mode 100644 README.md
```

```
te-t84 changes in readme.md file from TE-T84-Branch4

# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
#
# Date:      Thu Jan 29 14:43:26 2026 +0530
#
# On branch TE-T84-Branch4
# Changes to be committed:
#       new file:   README.md
```

14) Added 3 commit to 4th branch and deleted last commit.

```
mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84-Branch4)
$ git log --oneline
693340b te-t84 t3.txt file created
918dd66 te-t84 t2.txt file created
f73da0d te-t84 t1.txt file created
e78703b te-t84 changes in readme.md file from TE-T84-Branch4
c209753 Initial commit
```

```
mihir.mungara@SF-CPU-822 MINGW64 ~/Desktop/Git_Exercise (TE-T84-Branch4)
$ git reset --hard HEAD~1
HEAD is now at 918dd66 te-t84 t2.txt file created
```