Git Exercise Submission

~ Tushar Kolte

Repo Link - [Github Link](#)

Step 1: Template Repository & Exercise Repository Creation

Created a template repository on GitHub containing the basic project structure and initial files.

Enabled the repository as a Template Repository from settings.

Using this template, created a new repository named git-Exercise.

Step 2: Cloned the exercise repository to the local system and initialized git-flow to set up the standard branching model.

```
tushar.kolte@SF-CPU-0245 MINGW64 ~
$ pwd
/c/Users/tushar.kolte

tushar.kolte@SF-CPU-0245 MINGW64 ~
$ cd lms

tushar.kolte@SF-CPU-0245 MINGW64 ~/lms
$ git clone https://github.com/tusharkoltesimform/git-exercise.git
Cloning into 'git-exercise'...
remote: Enumerating objects: 4, done.
remote: Counting objects: 100% (4/4), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 4 (delta 0), reused 3 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (4/4), done.
Checking connectivity... done.

tushar.kolte@SF-CPU-0245 MINGW64 ~/lms
$ ls
git-exercise/

tushar.kolte@SF-CPU-0245 MINGW64 ~/lms
$ cd git-exercise/

tushar.kolte@SF-CPU-0245 MINGW64 ~/lms/git-exercise (main)
$ git flow init

Which branch should be used for bringing forth production releases?
   - main
Branch name for production releases: [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? []
```

Step 3: Created a new feature branch named TE-T84_git from develop.

Modified the README.md file by adding one line and made the first commit on this branch.

```
tushar.kolte@SF-CPU-0245 MINGW64 ~/lms/git-exercise (develop)
$ git checkout -b feature/TE-T84_git
Switched to a new branch 'feature/TE-T84_git'

tushar.kolte@SF-CPU-0245 MINGW64 ~/lms/git-exercise (feature/T
E-T84_git)
$ git branch
  develop
* feature/TE-T84_git
  main
```

```
tushar.kolte@SF-CPU-0245 MINGW64 ~/lms/git-exercise (feature/T
E-T84_git)
$ code README.md

tushar.kolte@SF-CPU-0245 MINGW64 ~/lms/git-exercise (feature/TE-T84_git)
$ git add README.md

tushar.kolte@SF-CPU-0245 MINGW64 ~/lms/git-exercise (feature/TE-T84_git)
$ git commit -m "Added line in the readme file"
[feature/TE-T84_git 51f0a97] Added line in the readme file
 Committer: unknown <tushar.kolte@SF-CPU-0245.simform.dom>
Your name and email address were configured automatically based
on your username and hostname. Please check that they are accurate.
You can suppress this message by setting them explicitly:

    git config --global user.name "Your Name"
    git config --global user.email you@example.com

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

    git commit --amend --reset-author

 1 file changed, 1 insertion(+)
```

Step 4: Created a sub-branch TE-T84_git_docs from the main feature branch TE-T84_git.

Added two new files and committed them as two separate commits.

```
tushar.kolte@SF-CPU-0245 MINGW64 ~/lms/git-exercise (feature/TE-T84_git)
$ git checkout -b feature/TE-T84_git_docs
Switched to a new branch 'feature/TE-T84_git_docs'

tushar.kolte@SF-CPU-0245 MINGW64 ~/lms/git-exercise (feature/TE-T84_git_docs)
$ code setup.txt

tushar.kolte@SF-CPU-0245 MINGW64 ~/lms/git-exercise (feature/TE-T84_git_docs)
$ git add setup.txt

tushar.kolte@SF-CPU-0245 MINGW64 ~/lms/git-exercise (feature/TE-T84_git_docs)
$ git commit -m "Added Setup document"
[feature/TE-T84_git_docs cd8822e] Added Setup document
 Committer: unknown <tushar.kolte@SF-CPU-0245.simform.dom>
Your name and email address were configured automatically based
on your username and hostname. Please check that they are accurate.
You can suppress this message by setting them explicitly:

    git config --global user.name "Your Name"
    git config --global user.email you@example.com

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

    git commit --amend --reset-author

 1 file changed, 1 insertion(+)
 create mode 100644 setup.txt

tushar.kolte@SF-CPU-0245 MINGW64 ~/lms/git-exercise (feature/TE-T84_git_docs)
$ code requirments.txt

tushar.kolte@SF-CPU-0245 MINGW64 ~/lms/git-exercise (feature/TE-T84_git_docs)
$ git add requirments.txt

tushar.kolte@SF-CPU-0245 MINGW64 ~/lms/git-exercise (feature/TE-T84_git_docs)
$ git commit -m "Added requirments file"
[feature/TE-T84_git_docs ead5a4f] Added requirments file
 Committer: unknown <tushar.kolte@SF-CPU-0245.simform.dom>
Your name and email address were configured automatically based
on your username and hostname. Please check that they are accurate.
You can suppress this message by setting them explicitly:

    git config --global user.name "Your Name"
    git config --global user.email you@example.com

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

    git commit --amend --reset-author

 1 file changed, 1 insertion(+)
 create mode 100644 requirments.txt
```

Step 5: Performed an interactive rebase and used pick & squash to combine both commits into a single clean commit.

```
tushar.kolte@SF-CPU-0245 MINGW64 ~/lms/git-exercise (feature/TE-T84_git_docs)
$ git rebase -i HEAD~2
[detached HEAD 78aa597] Added Setup and Requirments files
 Date: Wed Jan 28 17:37:51 2026 +0530
 Committer: unknown <tushar.kolte@SF-CPU-0245.simform.dom>
Your name and email address were configured automatically based
on your username and hostname. Please check that they are accurate.
You can suppress this message by setting them explicitly:

    git config --global user.name "Your Name"
    git config --global user.email you@example.com

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

    git commit --amend --reset-author

 2 files changed, 2 insertions(+)
 create mode 100644 requirments.txt
 create mode 100644 setup.txt
Successfully rebased and updated refs/heads/feature/TE-T84_git_docs.
```

```
C: > Users > tushar.kolte > lms > git-exercise > .git > rebase-merge >  ☰ git-rebase-todo
    1      pick cd8822e Added Setup document
    2      squash ead5a4f Added requirments file
```

```
tushar.kolte@SF-CPU-0245 MINGW64 ~/lms/git-exercise (feature/TE-T84_git_docs)
$ git log
commit ead5a4fe2b99ff75719f446b40ff25b5e1d80c22
Author: unknown <tushar.kolte@SF-CPU-0245.simform.dom>
Date:   Wed Jan 28 17:39:20 2026 +0530

    Added requirments file

commit cd8822ece8b84e0d4fbc0282a3554e4611aa866b
Author: unknown <tushar.kolte@SF-CPU-0245.simform.dom>
Date:   Wed Jan 28 17:37:51 2026 +0530

    Added Setup document

commit 51f0a9765723d7446e5f330bd640068b0275219d
Author: unknown <tushar.kolte@SF-CPU-0245.simform.dom>
Date:   Wed Jan 28 17:31:39 2026 +0530

    Added line in the readme file

commit e9735fa1e7b7c69fc4ce277c21760d6eab070fd7
Author: tusharkoltesimform <tushar.kolte@simformsolutions.com>
Date:   Wed Jan 28 17:19:54 2026 +0530

    Initial commit
```

Before squash

```
tushar.kolte@SF-CPU-0245 MINGW64 ~/lms/git-exercise (feature/TE-T84_git_docs)
$ git log
commit 78aa597aaf75f09ef4ab2f9c726a148408e68a4b
Author: unknown <tushar.kolte@SF-CPU-0245.simform.dom>
Date:   Wed Jan 28 17:37:51 2026 +0530

    Added Setup and Requirments files

commit 51f0a9765723d7446e5f330bd640068b0275219d
Author: unknown <tushar.kolte@SF-CPU-0245.simform.dom>
Date:   Wed Jan 28 17:31:39 2026 +0530

    Added line in the readme file

commit e9735fa1e7b7c69fc4ce277c21760d6eab070fd7
Author: tusharkoltesimform <tushar.kolte@simformsolutions.com>
Date:   Wed Jan 28 17:19:54 2026 +0530

    Initial commit
```

After squash

Step 6: Cherry-picked the squashed commit from the sub-branch TE-T84_git_docs into the main feature branch TE-T84_git

```
tushar.kolte@SF-CPU-0245 MINGW64 ~/lms/git-exercise (feature/TE-T84_git_docs)
$ git checkout feature/TE-T84_git
Switched to branch 'feature/TE-T84_git'

tushar.kolte@SF-CPU-0245 MINGW64 ~/lms/git-exercise (feature/TE-T84_git)
$ git log feature/TE-T84_git_docs
commit 78aa597aaf75f09ef4ab2f9c726a148408e68a4b
Author: unknown <tushar.kolte@SF-CPU-0245.simform.dom>
Date:   Wed Jan 28 17:37:51 2026 +0530

    Added Setup and Requirments files

commit 51f0a9765723d7446e5f330bd640068b0275219d
Author: unknown <tushar.kolte@SF-CPU-0245.simform.dom>
Date:   Wed Jan 28 17:31:39 2026 +0530

    Added line in the readme file

commit e9735fa1e7b7c69fc4ce277c21760d6eab070fd7
Author: tusharkoltesimform <tushar.kolte@simformsolutions.com>
Date:   Wed Jan 28 17:19:54 2026 +0530

    Initial commit
```

Switched to branch TE-T84_git and accessed logs of TE-T84_git_docs

```
tushar.kolte@SF-CPU-0245 MINGW64 ~/lms/git-exercise (feature/TE-T84_git)
$ git cherry-pick 78aa597aaf75f09ef4ab2f9c726a148408e68a4b
[feature/TE-T84_git bfac9e7] Added Setup and Requirments files
 Date: Wed Jan 28 17:37:51 2026 +0530
 Committer: unknown <tushar.kolte@SF-CPU-0245.simform.dom>
Your name and email address were configured automatically based
on your username and hostname. Please check that they are accurate.
You can suppress this message by setting them explicitly:

    git config --global user.name "Your Name"
    git config --global user.email you@example.com

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

    git commit --amend --reset-author

 2 files changed, 2 insertions(+)
 create mode 100644 requirments.txt
 create mode 100644 setup.txt
```
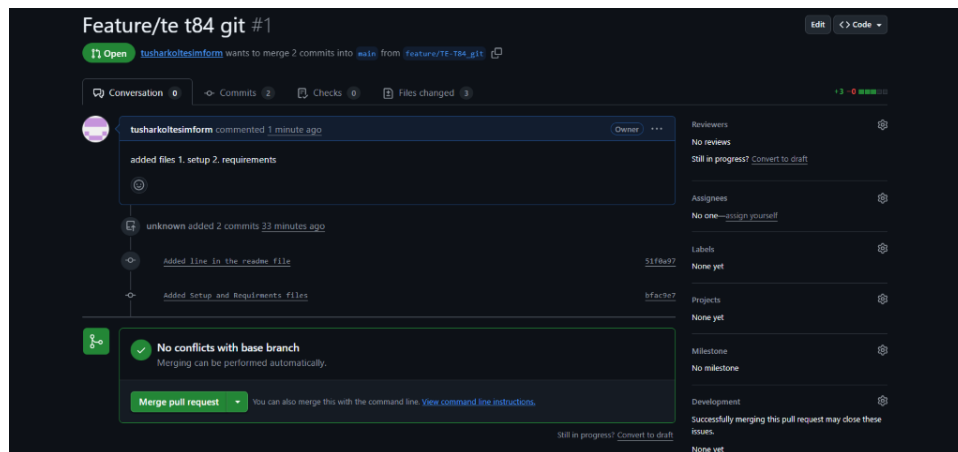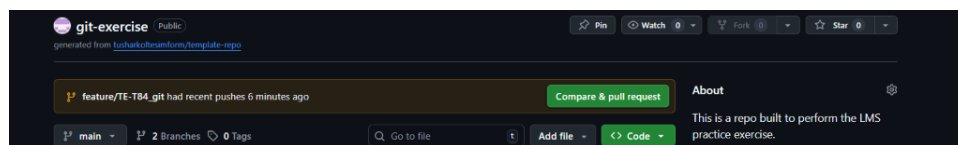
Cherry – Picked the commit

Step 7: Configured SSH authentication to securely connect the local system with GitHub.

After successful setup, pushed the feature branch TE-T84_git to the remote repository and created Pull Request.

Setup SSH

Created the pull request

Step 8: Created a second feature branch TE-T84_git_second from develop.

Updated the README.md file, committed the change, and pushed the branch to GitHub.

```
tushar.kolte@SF-CPU-0245 MINGW64 ~/lms/git-exercise (feature/TE-T84_git)
$ git checkout develop
Switched to branch 'develop'

tushar.kolte@SF-CPU-0245 MINGW64 ~/lms/git-exercise (develop)
$ git checkout -b feature/TE-T84_git_second
Switched to a new branch 'feature/TE-T84_git_second'
```

Created 2nd branch

```
tushar.kolte@SF-CPU-0245 MINGW64 ~/lms/git-exercise (feature/TE-T84_git_second)
$ code README.md

tushar.kolte@SF-CPU-0245 MINGW64 ~/lms/git-exercise (feature/TE-T84_git_second)
$ git add README.md

tushar.kolte@SF-CPU-0245 MINGW64 ~/lms/git-exercise (feature/TE-T84_git_second)
$ git commit -m "Added a line in the readme file"
[feature/TE-T84_git_second b2da555] Added a line in the readme file
 Committer: unknown <tushar.kolte@SF-CPU-0245.simform.dom>
Your name and email address were configured automatically based
on your username and hostname. Please check that they are accurate.
You can suppress this message by setting them explicitly:

    git config --global user.name "Your Name"
    git config --global user.email you@example.com

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

    git commit --amend --reset-author

 1 file changed, 1 insertion(+)
```
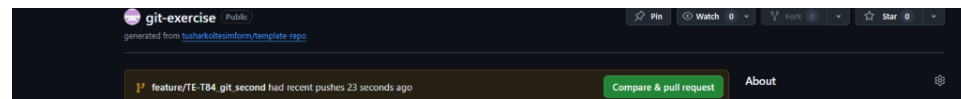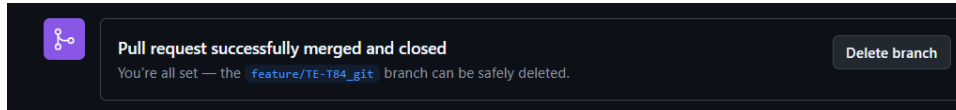
```
tushar.kolte@SF-CPU-0245 MINGW64 ~/lms/git-exercise (feature/TE-T84_git_second)
$ git push origin feature/TE-T84_git_second
Counting objects: 3, done.
Delta compression using up to 8 threads.
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 391 bytes | 0 bytes/s, done.
Total 3 (delta 0), reused 0 (delta 0)
remote:
remote: Create a pull request for 'feature/TE-T84_git_second' on GitHub by visiting:
remote:      https://github.com/tusharkoltesimform/git-exercise/pull/new/feature/TE-T84_git_second
remote:
To git@github.com:tusharkoltesimform/git-exercise.git
 * [new branch]      feature/TE-T84_git_second -> feature/TE-T84_git_second
```


Committed & Pushed

Step 9: After review, the PR was successfully merged, and the feature branch was deleted from GitHub to keep the repository clean.

Pull request successfully merged and closed
You're all set — the `feature/TE-T84_git` branch can be safely deleted.

Delete branch

Step 10: Rebase Second Branch & Create PR-2

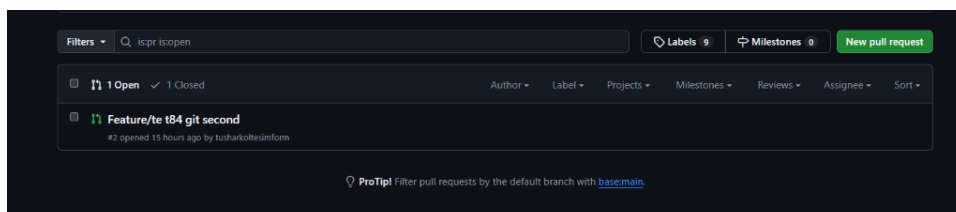After PR-1 was merged, the second branch TE-T84_git_second became behind develop.

Pulled the latest changes, rebased the branch on develop, and pushed the updated history.

Then created Pull Request-2 into develop.

```
tushar.kolte@SF-CPU-0245 MINGW64 ~/lms/git-exercise (main)
$ git pull origin main
From github.com:tusharkoltesimform/git-exercise
 * branch            main       -> FETCH_HEAD
Updating e9735fa..65d26d7
Fast-forward
 README.md          | 1 +
 requirments.txt    | 1 +
 setup.txt          | 1 +
 3 files changed, 3 insertions(+)
 create mode 100644 requirments.txt
 create mode 100644 setup.txt
```
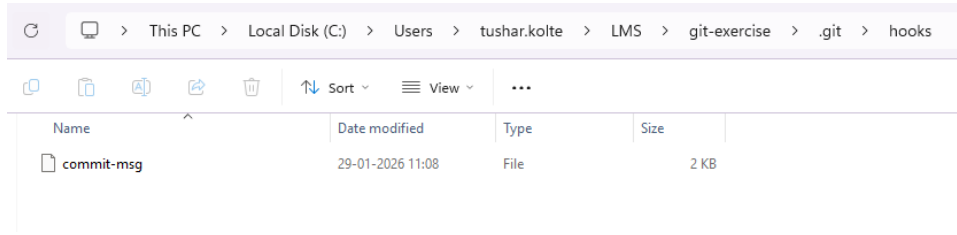
git rebase origin/develop

```
tushar.kolte@SF-CPU-0245 MINGW64 ~/lms/git-exercise (feature/TE-T84_git_second)
$ git push origin feature/TE-T84_git_second
Counting objects: 3, done.
Delta compression using up to 8 threads.
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 456 bytes | 0 bytes/s, done.
Total 3 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To git@github.com:tusharkoltesimform/git-exercise.git
   b2da555..105af15  feature/TE-T84_git_second -> feature/TE-T84_git_second
```

Filters ▾ | Q is:pr is:open | ⬡ Labels 9 | ⊕ Milestones 0 | New pull request

☐ ⏸ 1 Open ✓ 1 Closed | Author ▾ Label ▾ Projects ▾ Milestones ▾ Reviews ▾ Assignee ▾ Sort ▾

☐ ⏸ **Feature/te t84 git second**
    #2 opened 15 hours ago by tusharkoltesimform

♡ **ProTip!** Filter pull requests by the default branch with base:main.

Step 11: Created a custom Git hook inside the .git/hooks directory to enforce a standard commit message format.

Configured the hook to automatically add the prefix TE-T84 to every commit message.

Step 12: After review, Pull Request-2 was approved and merged into develop.

Step 13: After PR-2 was merged, created a release tag v1.0 on the develop branch to mark a stable build and pushed the tag to GitHub.

```
tushar.kolte@SF-CPU-0245 MINGW64 ~/LMS/git-exercise (develop)
$ git tag v1.0

tushar.kolte@SF-CPU-0245 MINGW64 ~/LMS/git-exercise (develop)
$ git push origin v1.0
Total 0 (delta 0), reused 0 (delta 0)
remote: To git@github.com:tusharkoltesimform/git-exercise.git
 * [new tag]         v1.0 -> v1.0
```

Step 14: Created a third feature branch from develop and made changes to the README.md file.

```
tushar.kolte@SF-CPU-0245 MINGW64 ~/LMS/git-exercise (develop)
$ git checkout -b feature/TE-T84_git_third
Switched to a new branch 'feature/TE-T84_git_third'

tushar.kolte@SF-CPU-0245 MINGW64 ~/LMS/git-exercise (feature/TE-T84_git_third)
$ code README.md

tushar.kolte@SF-CPU-0245 MINGW64 ~/LMS/git-exercise (feature/TE-T84_git_third)
$ git add README.md

tushar.kolte@SF-CPU-0245 MINGW64 ~/LMS/git-exercise (feature/TE-T84_git_third)
$ git commit -m "Added details to the readme file"
[feature/TE-T84_git_third 30c1e05] TE-T84: Added details to the readme file
 Committer: unknown <tushar.kolte@SF-CPU-0245.simform.dom>
Your name and email address were configured automatically based
on your username and hostname. Please check that they are accurate.
You can suppress this message by setting them explicitly:

    git config --global user.name "Your Name"
    git config --global user.email you@example.com

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

    git commit --amend --reset-author

 1 file changed, 12 insertions(+), 1 deletion(-)
```
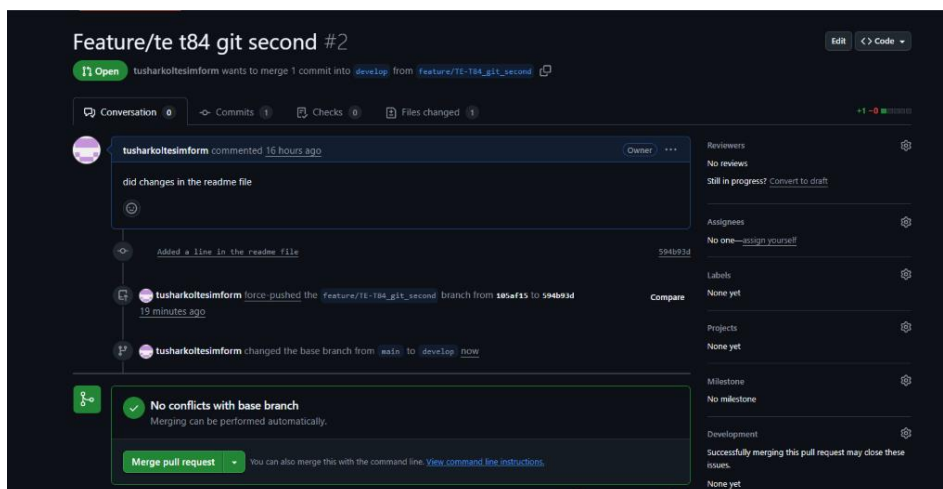
Step 15: Created a fourth feature branch from develop.

Checked the commit history of the third branch to identify the required commit hash, then cherry-picked the README commit into the fourth branch.

```
tushar.kolte@SF-CPU-0245 MINGW64 ~/LMS/git-exercise (develop)
$ git checkout -b feature/TE-T84_git_fourth
Switched to a new branch 'feature/TE-T84_git_fourth'

tushar.kolte@SF-CPU-0245 MINGW64 ~/LMS/git-exercise (feature/TE-T84_git_fourth)
$ git log feature/TE-T84_git_third
commit 30c1e05f55e80629c7337ad2723164a815221d8b
Author: unknown <tushar.kolte@SF-CPU-0245.simform.dom>
Date:   Thu Jan 29 13:57:54 2026 +0530

    TE-T84: Added details to the readme file
```

```
tushar.kolte@SF-CPU-0245 MINGW64 ~/LMS/git-exercise (feature/TE-T84_git_fourth)
$ git cherry-pick  30c1e05f55e80629c7337ad2723164a815221d8b
[feature/TE-T84_git_fourth 82ff936] TE-T84: Added details to the readme file
 Date: Thu Jan 29 13:57:54 2026 +0530
 Committer: unknown <tushar.kolte@SF-CPU-0245.simform.dom>
Your name and email address were configured automatically based
on your username and hostname. Please check that they are accurate.
You can suppress this message by setting them explicitly:

    git config --global user.name "Your Name"
    git config --global user.email you@example.com

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

    git commit --amend --reset-author

 1 file changed, 12 insertions(+), 1 deletion(-)
```

Step 16: Used the amend option to modify the most recent commit message without creating a new commit.

```
tushar.kolte@SF-CPU-0245 MINGW64 ~/LMS/git-exercise (feature/TE-T84_git_fourth)
$ git commit --amend
[feature/TE-T84_git_fourth ab6a7bd] TE-T84: cherry picked the  commit from 3rd branch
 Date: Thu Jan 29 13:57:54 2026 +0530
 Committer: unknown <tushar.kolte@SF-CPU-0245.simform.dom>
Your name and email address were configured automatically based
on your username and hostname. Please check that they are accurate.
You can suppress this message by setting them explicitly:

    git config --global user.name "Your Name"
    git config --global user.email you@example.com

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

    git commit --amend --reset-author

 1 file changed, 12 insertions(+), 1 deletion(-)
```

Step 17: On the fourth branch, added three files and committed them as three separate commits.

After that, removed the latest (third) commit using reset.

```
tushar.kolte@SF-CPU-0245 MINGW64 ~/LMS/git-exercise (feature/TE-T84_git_fourth)
$ git log
commit c169360958e36905ee2f2c8055747d408cb01a4a
Author: unknown <tushar.kolte@SF-CPU-0245.simform.dom>
Date:   Thu Jan 29 14:12:51 2026 +0530

    TE-T84: added file 3 commit 3

commit 49c970c2a1b426661f50ec589163cadbb5b31685
Author: unknown <tushar.kolte@SF-CPU-0245.simform.dom>
Date:   Thu Jan 29 14:11:52 2026 +0530

    TE-T84: Added file 2 commit 2

commit 5c4a168aa0d1bd0af2f2c9e79a3ae6bf1666b7d0
Author: unknown <tushar.kolte@SF-CPU-0245.simform.dom>
Date:   Thu Jan 29 14:11:17 2026 +0530

    TE-T84: Added file 1 commit 1
```

```
tushar.kolte@SF-CPU-0245 MINGW64 ~/LMS/git-exercise (feature/TE-T84_git_fourth)
$ git reset HEAD~1

tushar.kolte@SF-CPU-0245 MINGW64 ~/LMS/git-exercise (feature/TE-T84_git_fourth)
$ git log
commit 49c970c2a1b426661f50ec589163cadbb5b31685
Author: unknown <tushar.kolte@SF-CPU-0245.simform.dom>
Date:   Thu Jan 29 14:11:52 2026 +0530

    TE-T84: Added file 2 commit 2

commit 5c4a168aa0d1bd0af2f2c9e79a3ae6bf1666b7d0
Author: unknown <tushar.kolte@SF-CPU-0245.simform.dom>
Date:   Thu Jan 29 14:11:17 2026 +0530

    TE-T84: Added file 1 commit 1

commit ab6a7bdca00fde23601eb9285a7348bbe5cbdd00
Author: unknown <tushar.kolte@SF-CPU-0245.simform.dom>
Date:   Thu Jan 29 13:57:54 2026 +0530

    TE-T84: cherry picked the  commit from 3rd branch
```

At last performed git push –all origin for review.

Note-

During the exercise, PR-1 was accidentally merged into the main branch instead of develop.

To correct this, the merge commit was safely reverted on main, restoring it to the proper state.

After that, the same feature branch was merged correctly into the develop branch as per the git-flow process.

Thanks.