

GIT ASSIGNMENT

git repo used:

- https://github.com/shubhampokar/git_demo (used for learning and experimenting purpose, it contains t_log file for all terminal log)
- https://github.com/pokarshubham/git_course (used for assignment)

QUE 1

Pull and Merge difference

git pull = git fetch + git merge

Git repo cloned and changes made after creating new branch (features)

```
shubham@sf-cpu-313:~/githubngit$ git clone https://github.com/pokarshubham/git_course.git
Cloning into 'git_course'...
remote: Enumerating objects: 9, done.
remote: Counting objects: 100% (9/9), done.
remote: Compressing objects: 100% (6/6), done.
Receiving objects: 100% (9/9), done.
Resolving deltas: 100% (1/1), done.
remote: Total 9 (delta 1), reused 0 (delta 0), pack-reused 0
shubham@sf-cpu-313:~/githubngit$ cd git_course/
shubham@sf-cpu-313:~/githubngit/git_course$ git branch
* main
shubham@sf-cpu-313:~/githubngit/git_course$ git branch features
shubham@sf-cpu-313:~/githubngit/git_course$ git branch
  features
* main
shubham@sf-cpu-313:~/githubngit/git_course$ git checkout features
Switched to branch 'features'
shubham@sf-cpu-313:~/githubngit/git_course$ echo "new1" >> new1.txt
shubham@sf-cpu-313:~/githubngit/git_course$ git add .
shubham@sf-cpu-313:~/githubngit/git_course$ git commit -m "new1 added"
Author identity unknown

*** Please tell me who you are.

Run

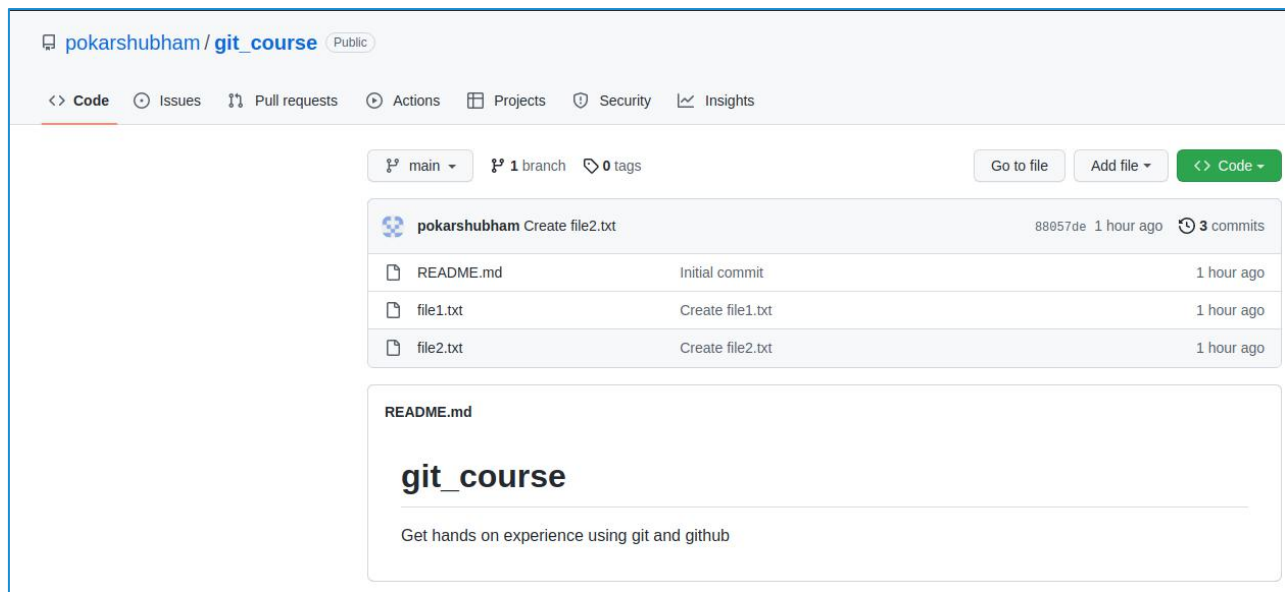
  git config --global user.email "you@example.com"
  git config --global user.name "Your Name"

to set your account's default identity.
Omit --global to set the identity only in this repository.

fatal: unable to auto-detect email address (got 'shubham@sf-cpu-313.(none)')
shubham@sf-cpu-313:~/githubngit/git_course$ git config user.email "shubham.p@simformsolutions.com"
shubham@sf-cpu-313:~/githubngit/git_course$ git config user.name "shubhampokar"
shubham@sf-cpu-313:~/githubngit/git_course$ git commit -m "new1 added"
[features d607ab8] new1 added
 1 file changed, 1 insertion(+)
 create mode 100644 new1.txt
shubham@sf-cpu-313:~/githubngit/git_course$ echo "new2" >> new2.txt
shubham@sf-cpu-313:~/githubngit/git_course$ git add .
shubham@sf-cpu-313:~/githubngit/git_course$ git commit -m "new2 added"
[features af1ee13] new2 added
 1 file changed, 1 insertion(+)
 create mode 100644 new2.txt
shubham@sf-cpu-313:~/githubngit/git_course$ git push origin features
Username for 'https://github.com': shubhampokar
Password for 'https://shubhampokar@github.com':
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 8 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (6/6), 555 bytes | 555.00 KiB/s, done.
Total 6 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), done.
remote:
```

```
shubham@sf-cpu-313:~/githubngit/git_course$ git push origin features
Username for 'https://github.com': shubhampokar
Password for 'https://shubhampokar@github.com':
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 8 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (6/6), 555 bytes | 555.00 KiB/s, done.
Total 6 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), done.
remote:
remote: Create a pull request for 'features' on GitHub by visiting:
remote:   https://github.com/pokarshubham/git_course/pull/new/features
remote:
To https://github.com/pokarshubham/git_course.git
* [new branch]      features -> features
```

pokarshubham's git_course main branch repo:



pokarshubham / git_course Public

<> Code Issues Pull requests Actions Projects Security Insights

main 1 branch 0 tags

Go to file Add file <> Code

pokarshubham Create file2.txt 88057de 1 hour ago 3 commits

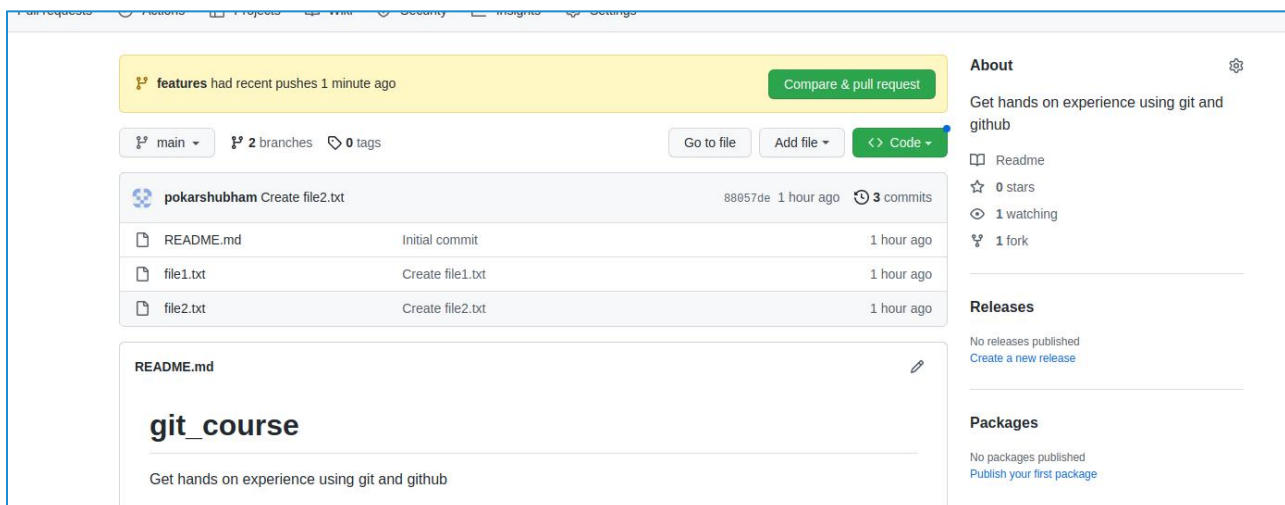
File	Commit	Time
README.md	Initial commit	1 hour ago
file1.txt	Create file1.txt	1 hour ago
file2.txt	Create file2.txt	1 hour ago

README.md

git_course

Get hands on experience using git and github

pokarshubham's git_course repo after features branch created and added by shubhampokar:



features had recent pushes 1 minute ago [Compare & pull request](#)

main 2 branches 0 tags

Go to file Add file <> Code

pokarshubham Create file2.txt 88057de 1 hour ago 3 commits

File	Commit	Time
README.md	Initial commit	1 hour ago
file1.txt	Create file1.txt	1 hour ago
file2.txt	Create file2.txt	1 hour ago

README.md

git_course

Get hands on experience using git and github

About

Get hands on experience using git and github

Readme

0 stars

1 watching

1 fork

Releases

No releases published
[Create a new release](#)

Packages

No packages published
[Publish your first package](#)

🔗 features had recent pushes 1 minute ago

Compare & pull request

🔗 main 2 branches 0 tags

Go to file Add file <> Code

Switch branches/tags

Find or create a branch...

Branches Tags

✓ main default

features

View all branches

88057de 1 hour ago 3 commits

Initial commit 1 hour ago

Create file1.txt 1 hour ago

Create file2.txt 1 hour ago

README.md

git_course

Get hands on experience using git and github

features branch:

🔗 features had recent pushes 4 minutes ago

Compare & pull request

🔗 features 2 branches 0 tags

Go to file Add file <> Code

This branch is 2 commits ahead of main.

Contribute

shubhampokar new2 added

af1ee13 6 minutes ago 5 commits

README.md Initial commit 1 hour ago

file1.txt Create file1.txt 1 hour ago

file2.txt Create file2.txt 1 hour ago

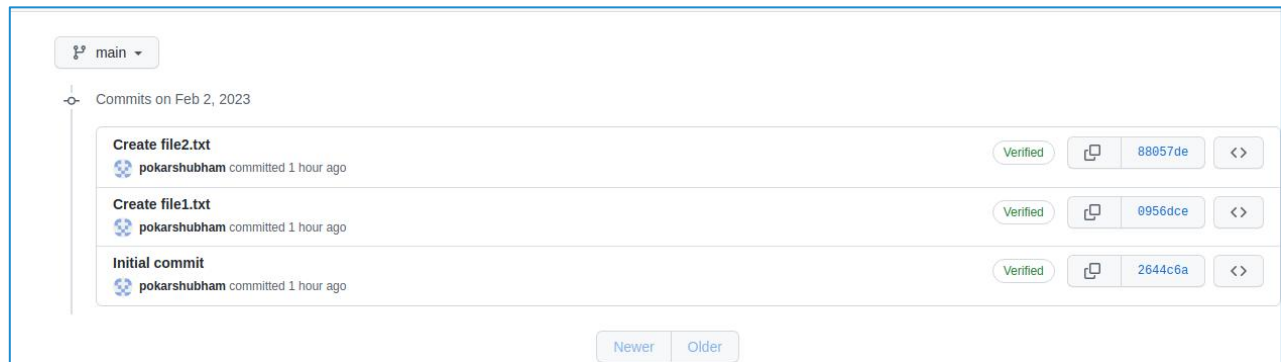
new1.txt new1 added 7 minutes ago

new2.txt new2 added 6 minutes ago

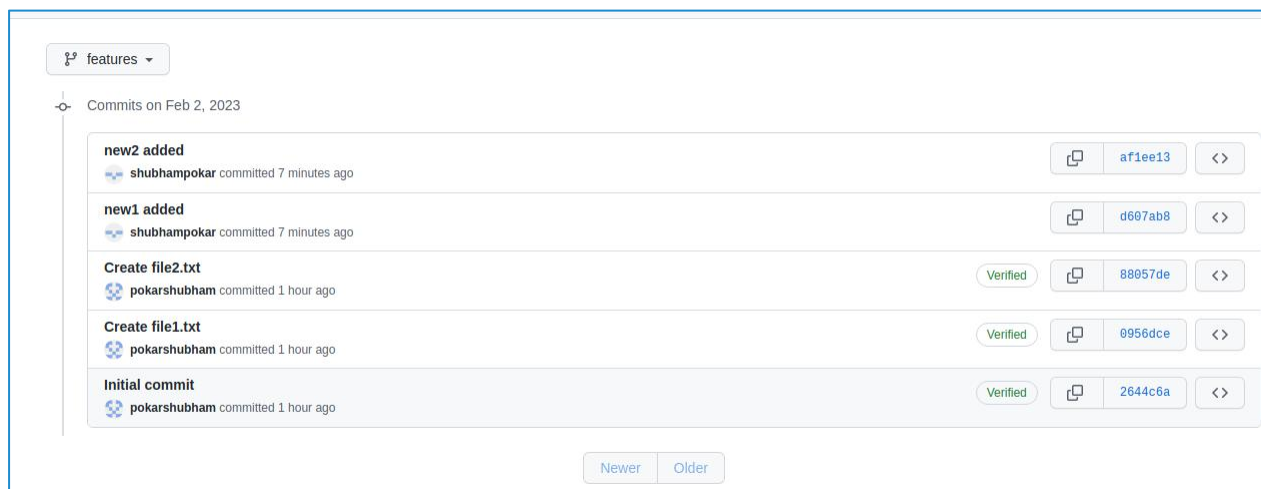
README.md

git_course

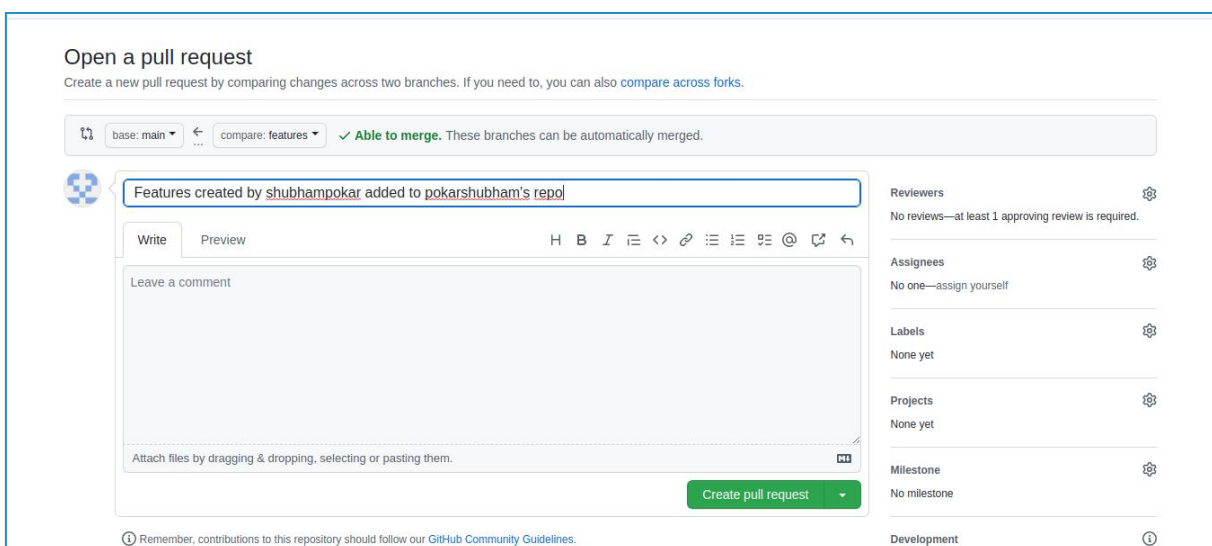
main branch commit log:



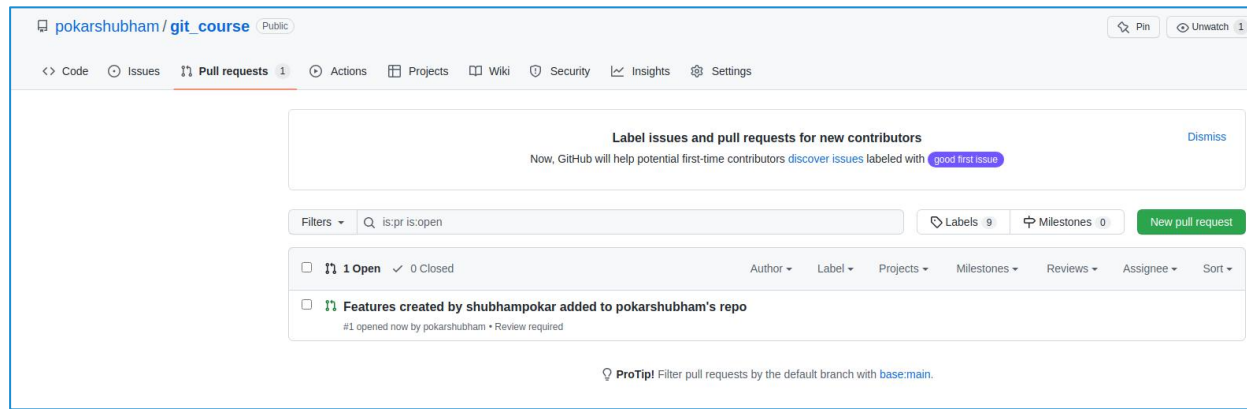
features branch commit log:



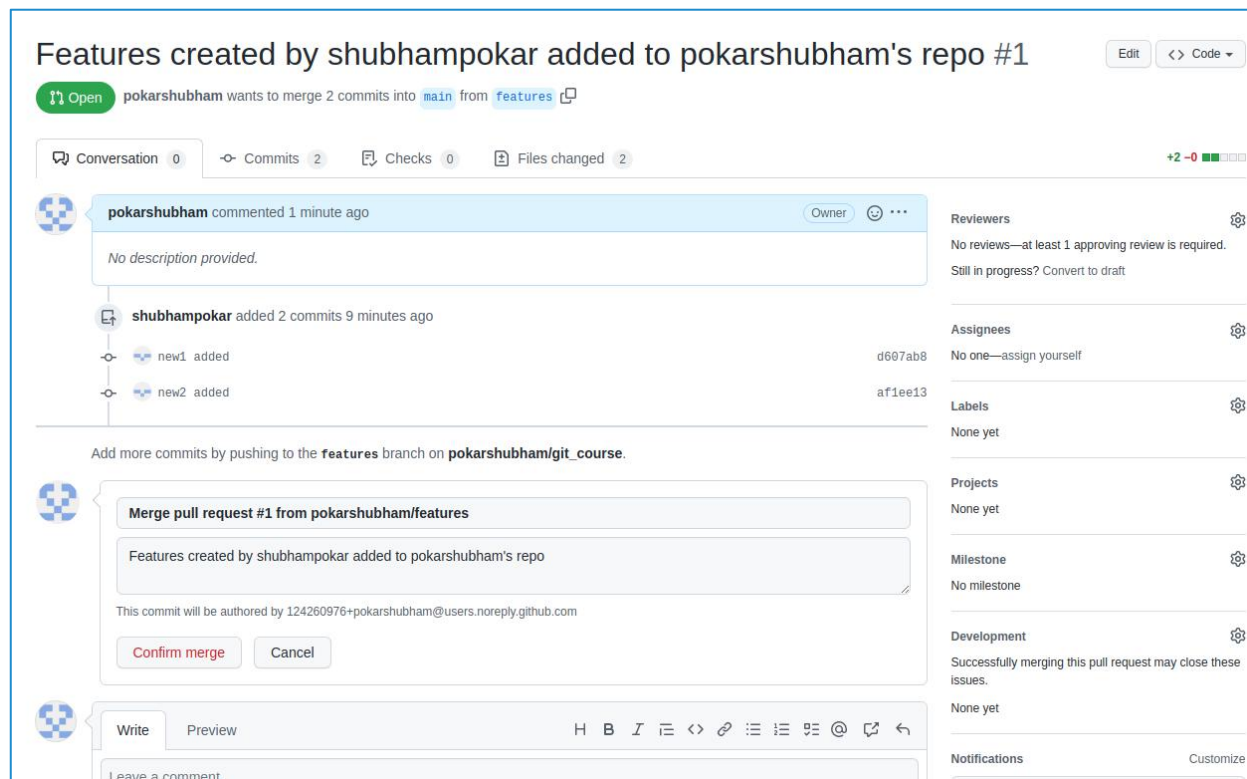
Creating pull request:



pull request created successfully:



Pull request accepted:



Pull request successfully merged to main branch and closed:

The screenshot shows a GitHub pull request titled "Features created by shubhampokar added to pokarshubham's repo #1". The status is "Merged", indicating that pokarshubham has merged 2 commits into the main branch from the features branch. The interface includes a sidebar with navigation options (Conversation, Commits, Checks, Files changed) and a right-hand panel with settings for reviewers, assignees, labels, projects, milestones, and development. The main content area displays a commit history with two commits: "new1 added" and "new2 added", both by shubhampokar. A message states "Pull request successfully merged and closed", advising that the features branch can be safely deleted. A comment box at the bottom allows for additional feedback.

New commits by features:

This screenshot displays the "Commits" tab of the same pull request. It lists two commits made by shubhampokar: "new1 added" (committed 10 minutes ago) and "new2 added" (committed 9 minutes ago). Each commit entry includes a preview of the code changes and a button to view the commit details. The sidebar and right-hand panel are consistent with the previous screenshot, providing context for the pull request's status and settings.

main branch repo:

main 2 branches 0 tags

Go to file Add file <> Code

Merge pull request #1 from pokarshubham/features ea03c7b now 6 commits

File	Commit Message	Time
README.md	Initial commit	1 hour ago
file1.txt	Create file1.txt	1 hour ago
file2.txt	Create file2.txt	1 hour ago
new1.txt	new1 added	10 minutes ago
new2.txt	new2 added	9 minutes ago

main branch commit log:

main

Commits on Feb 2, 2023

Commit Message	Verified	Commit Hash	Link
Merge pull request #1 from pokarshubham/features Features created by shubhampokar added to pokarshubham's repo pokarshubham committed now	Verified	ea03c7b	<>
Create file2.txt pokarshubham committed 1 hour ago	Verified	88057de	<>
Create file1.txt pokarshubham committed 1 hour ago	Verified	0956dce	<>
Initial commit pokarshubham committed 1 hour ago	Verified	2644c6a	<>

Pulling or fetching and merging changes in main branch of local repo:

```
shubham@sf-cpu-313:~/githubngit/git_course$ git pull origin main
remote: Enumerating objects: 1, done.
remote: Counting objects: 100% (1/1), done.
remote: Total 1 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (1/1), 648 bytes | 648.00 KiB/s, done.
From https://github.com/pokarshubham/git_course
* branch      main      -> FETCH_HEAD
   88057de..ea03c7b  main      -> origin/main
Updating af1ee13..ea03c7b
Fast-forward
shubham@sf-cpu-313:~/githubngit/git_course$
```


Using git merge on local repo:

```
shubham@sf-cpu-313:~/githubngit/git_course$ git branch
* features
  main
shubham@sf-cpu-313:~/githubngit/git_course$ git branch feature2
shubham@sf-cpu-313:~/githubngit/git_course$ git checkout feature2
Switched to branch 'feature2'
shubham@sf-cpu-313:~/githubngit/git_course$ echo "f2..." >> f2.txt
shubham@sf-cpu-313:~/githubngit/git_course$ git add .
shubham@sf-cpu-313:~/githubngit/git_course$ git commit -m "f2.txt added in feature2"
[feature2 a6964ba] f2.txt added in feature2
 1 file changed, 1 insertion(+)
 create mode 100644 f2.txt
shubham@sf-cpu-313:~/githubngit/git_course$ ls
f2.txt file1.txt file2.txt new1.txt new2.txt README.md
shubham@sf-cpu-313:~/githubngit/git_course$ git checkout main
Switched to branch 'main'
Your branch is behind 'origin/main' by 3 commits, and can be fast-forwarded.
(use "git pull" to update your local branch)
shubham@sf-cpu-313:~/githubngit/git_course$ ls
file1.txt file2.txt README.md
shubham@sf-cpu-313:~/githubngit/git_course$ git merge feature2
Updating 88057de..a6964ba
Fast-forward
 f2.txt      | 1 +
 new1.txt    | 1 +
 new2.txt    | 1 +
 3 files changed, 3 insertions(+)
 create mode 100644 f2.txt
 create mode 100644 new1.txt
 create mode 100644 new2.txt
shubham@sf-cpu-313:~/githubngit/git_course$ ls
f2.txt file1.txt file2.txt new1.txt new2.txt README.md
shubham@sf-cpu-313:~/githubngit/git_course$
```

QUE 2

Rebase

git log for main branch:

```
shubham@sf-cpu-313:~/githubngit/git_course$ git log
commit ccbf4362ce68a6becc1739cca06b2629a4d714ba (HEAD -> main)
Author: shubhampokar <shubham.p@simformsolutions.com>
Date:   Fri Feb 3 10:20:38 2023 +0530

    test.txt added in main local before fetching new updates

commit a6964babbf0639f372928739e8d46a1c636fb669 (feature2)
Author: shubhampokar <shubham.p@simformsolutions.com>
Date:   Fri Feb 3 09:54:13 2023 +0530

    f2.txt added in feature2

commit ea03c7baf30cd3084ad6cccca4d168263ebc90a4 (features)
Merge: 88057de af1ee13
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date:   Thu Feb 2 18:19:23 2023 +0530

    Merge pull request #1 from pokarshubham/features

    Features created by shubhampokar added to pokarshubham's repo

commit af1ee131ed9f94565e4491244e2c17bbd0a59166 (origin/features)
Author: shubhampokar <shubham.p@simformsolutions.com>
Date:   Thu Feb 2 18:10:00 2023 +0530

    new2 added

commit d607ab86674fc1e7af06bb4db6a6a9ed3a7dd91e
Author: shubhampokar <shubham.p@simformsolutions.com>
Date:   Thu Feb 2 18:09:34 2023 +0530

    new1 added

commit 88057dee280e378973bf1f62d6fe56a9bad60abd
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date:   Thu Feb 2 17:07:54 2023 +0530

    Create file2.txt

commit 0956dce7875de822b84596e4ad56bbd223bebd9c
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date:   Thu Feb 2 17:07:16 2023 +0530

    Create file1.txt

commit 2644c6a812c2aa9eab1515273dd260e4f3c668a7
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date:   Thu Feb 2 17:06:43 2023 +0530

    Initial commit
```

using rebase to squash few commits:

```
GNU nano 6.2 /home/shubham/githubngit/git_course/.git/rebase-merge/git
pick af1ee13 new2 added
s 6e125d5 f2.txt added in feature2
s ba7f82d test.txt added in main local before fetching new updates
█
# Rebase d607ab8..ba7f82d onto d607ab8 (3 commands)
#
# Commands:
# p, pick <commit> = use commit
# r, reword <commit> = use commit, but edit the commit message
# e, edit <commit> = use commit, but stop for amending
# s, squash <commit> = use commit, but meld into previous commit
# f, fixup [-C | -c] <commit> = like "squash" but keep only the previous
#                               commit's log message, unless -C is used, in which case
#                               keep only this commit's message; -c is same as -C but
#                               opens the editor
# x, exec <command> = run command (the rest of the line) using shell
# b, break = stop here (continue rebase later with 'git rebase --continue')
# d, drop <commit> = remove commit
# l, label <label> = label current HEAD with a name
# t, reset <label> = reset HEAD to a label
# m, merge [-C <commit> | -c <commit>] <label> [# <oneline>]
# .      create a merge commit using the original merge commit's
# .      message (or the oneline, if no original merge commit was
# .      specified); use -c <commit> to reword the commit message
#
# 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.
#
```

Commit message for combined commits:

```
GNU nano 6.2 /home/shubham/githubngit/git_course/.git/COMMIT_EDITMSG
# This is a combination of 3 commits.
# This is the 1st commit message:

new2 added

# This is the commit message #2:

f2.txt added in feature2

# This is the commit message #3:

test.txt added in main local before fetching new updates

# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
#
# Date:      Thu Feb 2 18:10:00 2023 +0530
#
# interactive rebase in progress; onto d607ab8
# Last commands done (3 commands done):
#   squash 6e125d5 f2.txt added in feature2
#   squash ba7f82d test.txt added in main local before fetching new updates
# No commands remaining.
# You are currently rebasing branch 'main' on 'd607ab8'.
#
# Changes to be committed:
#   new file:   f2.txt
#   new file:   new2.txt
#   new file:   test.txt
#
```


git log of main branch after combining commits:

```
shubham@sf-cpu-313:~/githubngit/git_course$ git log
commit 579f38f801219473ec9ffbec77e02a2062f6f127 (HEAD -> main)
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Thu Feb 2 18:10:00 2023 +0530

    new2 added

    f2.txt added in feature2

    test.txt added in main local before fetching new updates

commit d607ab86674fc1e7af06bb4db6a6a9ed3a7dd91e
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Thu Feb 2 18:09:34 2023 +0530

    new1 added

commit 88057dee280e378973bf1f62d6fe56a9bad60abd
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date: Thu Feb 2 17:07:54 2023 +0530

    Create file2.txt

commit 0956dce7875de822b84596e4ad56bbd223bebd9c
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date: Thu Feb 2 17:07:16 2023 +0530

    Create file1.txt

commit 2644c6a812c2aa9eab1515273dd260e4f3c668a7
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date: Thu Feb 2 17:06:43 2023 +0530

    Initial commit
shubham@sf-cpu-313:~/githubngit/git_course$
```

merging using rebase:

```
shubham@sf-cpu-313:~/githubngit/git_course$ git checkout features
Switched to branch 'features'
shubham@sf-cpu-313:~/githubngit/git_course$ touch fs1.pdf
shubham@sf-cpu-313:~/githubngit/git_course$ git add .
shubham@sf-cpu-313:~/githubngit/git_course$ git commit -m "fs and fs1 files added in features"
[features 6107e0c] fs and fs1 files added in features
 2 files changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 fs.txt
 create mode 100644 fs1.pdf
shubham@sf-cpu-313:~/githubngit/git_course$ git rebase master
fatal: invalid upstream 'master'
shubham@sf-cpu-313:~/githubngit/git_course$ git rebase main
Current branch features is up to date.
shubham@sf-cpu-313:~/githubngit/git_course$ git checkout main
Switched to branch 'main'
Your branch and 'origin/main' have diverged,
and have 1 and 4 different commits each, respectively.
 (use "git pull" to merge the remote branch into yours)
shubham@sf-cpu-313:~/githubngit/git_course$ git merge features
Updating 579f38f..6107e0c
Fast-forward
 fs.txt | 0
 fs1.pdf | 0
 2 files changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 fs.txt
 create mode 100644 fs1.pdf
shubham@sf-cpu-313:~/githubngit/git_course$ git log
commit 6107e0cd3948a6cf51e8743ec40df5acc4eb577b (HEAD -> main, features)
Author: shubhampokar <shubham.p@simformsolutions.com>
Date:   Fri Feb 3 11:22:41 2023 +0530

    fs and fs1 files added in features

commit 579f38f801219473ec9ffbec77e02a2062f6f127
Author: shubhampokar <shubham.p@simformsolutions.com>
Date:   Thu Feb 2 18:10:00 2023 +0530

    new2 added

    f2.txt added in feature2

    test.txt added in main local before fetching new updates

commit d607ab86674fc1e7af06bb4db6a6a9ed3a7dd91e
Author: shubhampokar <shubham.p@simformsolutions.com>
Date:   Thu Feb 2 18:09:34 2023 +0530

    new1 added

commit 88057dee280e378973bf1f62d6fe56a9bad60abd
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date:   Thu Feb 2 17:07:54 2023 +0530

    Create file2.txt
```


QUE 3

Change commit message

USING AMEND (changes only last commit message):

git log before amend:

```
shubham@sf-cpu-313:~/githubngit/git_course$ git checkout features
Switched to branch 'features'
shubham@sf-cpu-313:~/githubngit/git_course$ git log
commit 6107e0cd3948a6cf51e8743ec40df5acc4eb577b (HEAD -> features, main)
Author: shubhampokar <shubham.p@simformsolutions.com>
Date:   Fri Feb 3 11:22:41 2023 +0530

    fs and fs1 files added in features

commit 579f38f801219473ec9ffbec77e02a2062f6f127
Author: shubhampokar <shubham.p@simformsolutions.com>
Date:   Thu Feb 2 18:10:00 2023 +0530

    new2 added

    f2.txt added in feature2

    test.txt added in main local before fetching new updates

commit d607ab86674fc1e7af06bb4db6a6a9ed3a7dd91e
Author: shubhampokar <shubham.p@simformsolutions.com>
Date:   Thu Feb 2 18:09:34 2023 +0530

    new1 added

commit 88057dee280e378973bf1f62d6fe56a9bad60abd
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date:   Thu Feb 2 17:07:54 2023 +0530

    Create file2.txt

commit 0956dce7875de822b84596e4ad56bbd223bebd9c
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date:   Thu Feb 2 17:07:16 2023 +0530

    Create file1.txt

commit 2644c6a812c2aa9eab1515273dd260e4f3c668a7
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date:   Thu Feb 2 17:06:43 2023 +0530

    Initial commit
shubham@sf-cpu-313:~/githubngit/git_course$ git commit --amend
[features 8a0ee90] fs and fs1 files created and added in features (change using amend)
Date: Fri Feb 3 11:22:41 2023 +0530
2 files changed, 0 insertions(+), 0 deletions(-)
create mode 100644 fs.txt
create mode 100644 fs1.pdf
```

last commit message:

```
GNU nano 6.2 /home/shubham/githubngit/git course/.git/COMMIT_EDITMSG
fs and fs1 files added in features

# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
#
# Date:      Fri Feb 3 11:22:41 2023 +0530
#
# On branch features
# Changes to be committed:
#   new file:   fs.txt
#   new file:   fs1.pdf
#
```

Changing last commit message:

```
GNU nano 6.2 /home/shubham/githubngit/git course/.git/COMMIT_EDITMSG
fs and fs1 files created and added in features (change using amend)

# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
#
# Date:      Fri Feb 3 11:22:41 2023 +0530
#
# On branch features
# Changes to be committed:
#   new file:   fs.txt
#   new file:   fs1.pdf
#
```

git log after changing commit message:

```
shubham@sf-cpu-313:~/githubngit/git_course$ git commit --amend
[features 8a0ee90] fs and fs1 files created and added in features (change using amend)
Date: Fri Feb 3 11:22:41 2023 +0530
2 files changed, 0 insertions(+), 0 deletions(-)
create mode 100644 fs.txt
create mode 100644 fs1.pdf
shubham@sf-cpu-313:~/githubngit/git_course$ git log
commit 8a0ee90e7d9f90187731c130cec529b8cc70ff90 (HEAD -> features)
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Fri Feb 3 11:22:41 2023 +0530

    fs and fs1 files created and added in features (change using amend)

commit 579f38f801219473ec9ffbec77e02a2062f6f127
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Thu Feb 2 18:10:00 2023 +0530

    new2 added

    f2.txt added in feature2

    test.txt added in main local before fetching new updates

commit d607ab86674fc1e7af06bb4db6a6a9ed3a7dd91e
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Thu Feb 2 18:09:34 2023 +0530

    new1 added

commit 88057dee280e378973bf1f62d6fe56a9bad60abd
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date: Thu Feb 2 17:07:54 2023 +0530

    Create file2.txt

commit 0956dce7875de822b84596e4ad56bbd223bebd9c
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date: Thu Feb 2 17:07:16 2023 +0530

    Create file1.txt

commit 2644c6a812c2aa9eab1515273dd260e4f3c668a7
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date: Thu Feb 2 17:06:43 2023 +0530

    Initial commit
shubham@sf-cpu-313:~/githubngit/git_course$
```

USING REBASE (change any commit message using reword)

git log before rebase reword:

```
shubham@sf-cpu-313:~/githubngit/git_course$ git log
commit 8a0ee90e7d9f90187731c130cec529b8cc70ff90 (HEAD -> features)
Author: shubhampokar <shubham.p@simformsolutions.com>
Date:   Fri Feb 3 11:22:41 2023 +0530

    fs and fs1 files created and added in features (change using amend)

commit 579f38f801219473ec9ffbec77e02a2062f6f127
Author: shubhampokar <shubham.p@simformsolutions.com>
Date:   Thu Feb 2 18:10:00 2023 +0530

    new2 added

    f2.txt added in feature2

    test.txt added in main local before fetching new updates

commit d607ab86674fc1e7af06bb4db6a6a9ed3a7dd91e
Author: shubhampokar <shubham.p@simformsolutions.com>
Date:   Thu Feb 2 18:09:34 2023 +0530

    new1 added

commit 88057dee280e378973bf1f62d6fe56a9bad60abd
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date:   Thu Feb 2 17:07:54 2023 +0530

    Create file2.txt

commit 0956dce7875de822b84596e4ad56bbd223bebd9c
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date:   Thu Feb 2 17:07:16 2023 +0530

    Create file1.txt

commit 2644c6a812c2aa9eab1515273dd260e4f3c668a7
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date:   Thu Feb 2 17:06:43 2023 +0530

    Initial commit
shubham@sf-cpu-313:~/githubngit/git_course$
shubham@sf-cpu-313:~/githubngit/git_course$ git ^C
shubham@sf-cpu-313:~/githubngit/git_course$ git rebase -i 0956dce7875de822b84596e4ad56bbd223bebd9c
[detached HEAD 8c721ba] new1 added (change using rebase reword)
Date: Thu Feb 2 18:09:34 2023 +0530
1 file changed, 1 insertion(+)
create mode 100644 new1.txt
Successfully rebased and updated refs/heads/features.
```


select commit message for reword:

```
GNU nano 6.2 /home/shubham/githubngit/git_course/.git/rebase-merge/git-rebase-to
pick 88057de Create file2.txt
r d607ab8 new1 added
pick 579f38f new2 added
pick 8a0ee90 fs and fs1 files created and added in features (change using amend)

# Rebase 0956dce..8a0ee90 onto 0956dce (4 commands)
#
# Commands:
# p, pick <commit> = use commit
# r, reword <commit> = use commit, but edit the commit message
# e, edit <commit> = use commit, but stop for amending
# s, squash <commit> = use commit, but meld into previous commit
# f, fixup [-C | -c] <commit> = like "squash" but keep only the previous
#                               commit's log message, unless -C is used, in which case
#                               keep only this commit's message; -c is same as -C but
#                               opens the editor
# x, exec <command> = run command (the rest of the line) using shell
# b, break = stop here (continue rebase later with 'git rebase --continue')
# d, drop <commit> = remove commit
# l, label <label> = label current HEAD with a name
# t, reset <label> = reset HEAD to a label
# m, merge [-C <commit> | -c <commit>] <label> [# <oneline>]
# .       create a merge commit using the original merge commit's
# .       message (or the oneline, if no original merge commit was
# .       specified); use -c <commit> to reword the commit message
#
# 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.
#
```

changing commit message:

```
GNU nano 6.2 /home/shubham/githubngit/git_course/.git/COMMIT_EDITMSG *
new1 added (change using rebase reword)

# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
#
# Date:      Thu Feb 2 18:09:34 2023 +0530
#
# interactive rebase in progress; onto 0956dce
# Last commands done (2 commands done):
#   pick 88057de Create file2.txt
#   reword d607ab8 new1 added
# Next commands to do (2 remaining commands):
#   pick 579f38f new2 added
#   pick 8a0ee90 fs and fs1 files created and added in features (change using amend)
# You are currently editing a commit while rebasing branch 'features' on '0956dce'.
#
# Changes to be committed:
#   new file:   new1.txt
#
```

git log after commit message is changed:

```
shubham@sf-cpu-313:~/githubngit/git_course$ git rebase -i 0956dce7875de822b84596e4ad56bbd223bebd9c
[detached HEAD 8c721ba] new1 added (change using rebase reword)
Date: Thu Feb 2 18:09:34 2023 +0530
1 file changed, 1 insertion(+)
create mode 100644 new1.txt
Successfully rebased and updated refs/heads/features.
shubham@sf-cpu-313:~/githubngit/git_course$ git log
commit aa9e37396f7b728107b6e2ca06850efe9ac89052 (HEAD -> features)
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Fri Feb 3 11:22:41 2023 +0530

    fs and fs1 files created and added in features (change using amend)

commit 7e9353c9fa23ac40dbaa9b29ce6514dbf76045a2
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Thu Feb 2 18:10:00 2023 +0530

    new2 added

    f2.txt added in feature2

    test.txt added in main local before fetching new updates

commit 8c721ba249adab404cdc88f04ecf0f6769f678d7
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Thu Feb 2 18:09:34 2023 +0530

    new1 added (change using rebase reword)

commit 88057dee280e378973bf1f62d6fe56a9bad60abd
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date: Thu Feb 2 17:07:54 2023 +0530

    Create file2.txt

commit 0956dce7875de822b84596e4ad56bbd223bebd9c
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date: Thu Feb 2 17:07:16 2023 +0530

    Create file1.txt

commit 2644c6a812c2aa9eab1515273dd260e4f3c668a7
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date: Thu Feb 2 17:06:43 2023 +0530

    Initial commit
```


QUE 4

cherry pick

cherryb branch files and git log:

```
shubham@sf-cpu-313:~/githubngit/git_course$ git checkout cherryb
Already on 'cherryb'
shubham@sf-cpu-313:~/githubngit/git_course$ ls
c1.txt  c3.txt  file1.txt  fs1.pdf  new1.txt  README.md
c2.txt  f2.txt  file2.txt  fs.txt   new2.txt  test.txt
shubham@sf-cpu-313:~/githubngit/git_course$ git log
commit 204a9f0f848d58830953547707f53a5dd6d0d1f9 (HEAD -> cherryb)
Author: shubhampokar <shubham.p@simformsolutions.com>
Date:   Fri Feb 3 12:39:53 2023 +0530

    c3 added in cherryb

commit b13a879ecb37872cbaa57e2a92aa668917051c07
Author: shubhampokar <shubham.p@simformsolutions.com>
Date:   Fri Feb 3 12:39:19 2023 +0530

    c2 added in cherryb

commit 059083b40147c1a356faf427207d0a97caa51cdd
Author: shubhampokar <shubham.p@simformsolutions.com>
Date:   Fri Feb 3 12:38:52 2023 +0530

    c1 added in cherryb

commit aa9e37396f7b728107b6e2ca06850efe9ac89052 (features)
Author: shubhampokar <shubham.p@simformsolutions.com>
Date:   Fri Feb 3 11:22:41 2023 +0530

    fs and fs1 files created and added in features (change using amend)

commit 7e9353c9fa23ac40dbaa9b29ce6514dbf76045a2
Author: shubhampokar <shubham.p@simformsolutions.com>
Date:   Thu Feb 2 18:10:00 2023 +0530

    new2 added

    f2.txt added in feature2

    test.txt added in main local before fetching new updates

commit 8c721ba249adab404cdc88f04ecf0f6769f678d7
Author: shubhampokar <shubham.p@simformsolutions.com>
Date:   Thu Feb 2 18:09:34 2023 +0530

    new1 added (change using rebase reword)

commit 88057dee280e378973bf1f62d6fe56a9bad60abd
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date:   Thu Feb 2 17:07:54 2023 +0530

    Create file2.txt

commit 0956dce7875de822b84596e4ad56bbd223bebd9c
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
```

features branch files:

```
shubham@sf-cpu-313:~/githubngit/git_course$ git checkout features
Switched to branch 'features'
shubham@sf-cpu-313:~/githubngit/git_course$ ls
f2.txt  file1.txt  file2.txt  fs1.pdf  fs.txt  new1.txt  new2.txt  README.md  test.txt
```

features branch git log and files after cherry picking c2 file commit from cherryb branch:

```
shubham@sf-cpu-313:~/githubngit/git_course$ git cherry-pick b13a879ecb37872cbaa57e2a92aa668917051c07
[features b32f329] c2 added in cherryb
Date: Fri Feb 3 12:39:19 2023 +0530
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 c2.txt
shubham@sf-cpu-313:~/githubngit/git_course$ git log
commit b32f32989c2de9ff70b0d5dc57d14c9d13479f54 (HEAD -> features)
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Fri Feb 3 12:39:19 2023 +0530

    c2 added in cherryb

commit aa9e37396f7b728107b6e2ca06850efe9ac89052
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Fri Feb 3 11:22:41 2023 +0530

    fs and fs1 files created and added in features (change using amend)

commit 7e9353c9fa23ac40dbaa9b29ce6514dbf76045a2
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Thu Feb 2 18:10:00 2023 +0530

    new2 added

    f2.txt added in feature2

    test.txt added in main local before fetching new updates

commit 8c721ba249adab404cdc88f04ecf0f6769f678d7
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Thu Feb 2 18:09:34 2023 +0530

    new1 added (change using rebase reword)

commit 88057dee280e378973bf1f62d6fe56a9bad60abd
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date: Thu Feb 2 17:07:54 2023 +0530

    Create file2.txt

commit 0956dce7875de822b84596e4ad56bbd223bebd9c
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date: Thu Feb 2 17:07:16 2023 +0530

    Create file1.txt

commit 2644c6a812c2aa9eab1515273dd260e4f3c668a7
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date: Thu Feb 2 17:06:43 2023 +0530

    Initial commit
shubham@sf-cpu-313:~/githubngit/git_course$ ls
c2.txt  f2.txt  file1.txt  file2.txt  fs1.pdf  fs.txt  new1.txt  new2.txt  README.md  test.txt
```

QUE 5

Drop commit

USING git reset --hard HEAD~1 (removes last commit):

git log before drop command:

```
shubham@sf-cpu-313:~/githubngit/git_course$ git log
commit 77ed88102ac96d4b7a803bda0aeb9e7867f9e99f (HEAD -> cherryb)
Author: shubhampokar <shubham.p@sinformsolutions.com>
Date:   Fri Feb 3 13:33:57 2023 +0530

    c6 added in cherryb

commit f6be76e4b73d82ab01f9f0a569064e1e732ddbad
Author: shubhampokar <shubham.p@sinformsolutions.com>
Date:   Fri Feb 3 13:26:47 2023 +0530

    c5 added in cherryb

commit 92aa86b6404819007e05bf8ea06c72dd0f25d698
Author: shubhampokar <shubham.p@sinformsolutions.com>
Date:   Fri Feb 3 13:26:35 2023 +0530

    c4 added in cherryb

commit 204a9f0f848d58830953547707f53a5dd6d0d1f9
Author: shubhampokar <shubham.p@sinformsolutions.com>
Date:   Fri Feb 3 12:39:53 2023 +0530

    c3 added in cherryb

commit b13a879ecb37872cbaa57e2a92aa668917051c07
Author: shubhampokar <shubham.p@sinformsolutions.com>
Date:   Fri Feb 3 12:39:19 2023 +0530

    c2 added in cherryb

commit 059083b40147c1a356faf427207d0a97caa51cdd
Author: shubhampokar <shubham.p@sinformsolutions.com>
Date:   Fri Feb 3 12:38:52 2023 +0530

    c1 added in cherryb

commit aa9e37396f7b728107b6e2ca06850efe9ac89052
Author: shubhampokar <shubham.p@sinformsolutions.com>
Date:   Fri Feb 3 11:22:41 2023 +0530

    fs and fs1 files created and added in features (change using amend)

commit 7e9353c9fa23ac40dbaa9b29ce6514dbf76045a2
Author: shubhampokar <shubham.p@sinformsolutions.com>
Date:   Thu Feb 2 18:10:00 2023 +0530

    new2 added

    f2.txt added in feature2

    test.txt added in main local before fetching new updates
```


git log after drop command:

```
shubham@sf-cpu-313:~/githubngit/git_course$ git reset --hard HEAD~1
HEAD is now at f6be76e c5 added in cherryb
shubham@sf-cpu-313:~/githubngit/git_course$ git log
commit f6be76e4b73d82ab01f9f0a569064e1e732ddbad (HEAD -> cherryb)
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Fri Feb 3 13:26:47 2023 +0530

    c5 added in cherryb

commit 92aa86b6404819007e05bf8ea06c72dd0f25d698
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Fri Feb 3 13:26:35 2023 +0530

    c4 added in cherryb

commit 204a9f0f848d58830953547707f53a5dd6d0d1f9
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Fri Feb 3 12:39:53 2023 +0530

    c3 added in cherryb

commit b13a879ecb37872cbaa57e2a92aa668917051c07
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Fri Feb 3 12:39:19 2023 +0530

    c2 added in cherryb

commit 059083b40147c1a356faf427207d0a97caa51cdd
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Fri Feb 3 12:38:52 2023 +0530

    c1 added in cherryb

commit aa9e37396f7b728107b6e2ca06850efe9ac89052
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Fri Feb 3 11:22:41 2023 +0530

    fs and fs1 files created and added in features (change using amend)

commit 7e9353c9fa23ac40dbaa9b29ce6514dbf76045a2
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Thu Feb 2 18:10:00 2023 +0530

    new2 added

    f2.txt added in feature2

    test.txt added in main local before fetching new updates

commit 8c721ba249adab404cdc88f04ecf0f6769f678d7
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Thu Feb 2 18:09:34 2023 +0530
```

USING git reset --hard <sha1-commit-id> (removes all commit after particular commit id):

git log after dropping all changes after “c3 added in cherryb” commit:

```
shubham@sf-cpu-313:~/githubngit/git_course$ git reset --hard 204a9f0f848d58830953547707f53a5dd6d0d1f9
HEAD is now at 204a9f0 c3 added in cherryb
shubham@sf-cpu-313:~/githubngit/git_course$ git log
commit 204a9f0f848d58830953547707f53a5dd6d0d1f9 (HEAD -> cherryb)
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Fri Feb 3 12:39:53 2023 +0530

    c3 added in cherryb

commit b13a879ecb37872cbaa57e2a92aa668917051c07
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Fri Feb 3 12:39:19 2023 +0530

    c2 added in cherryb

commit 059083b40147c1a356faf427207d0a97caa51cdd
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Fri Feb 3 12:38:52 2023 +0530

    c1 added in cherryb

commit aa9e37396f7b728107b6e2ca06850efe9ac89052
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Fri Feb 3 11:22:41 2023 +0530

    fs and fs1 files created and added in features (change using amend)

commit 7e9353c9fa23ac40dbaa9b29ce6514dbf76045a2
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Thu Feb 2 18:10:00 2023 +0530

    new2 added

    f2.txt added in feature2

    test.txt added in main local before fetching new updates

commit 8c721ba249adab404cdc88f04ecf0f6769f678d7
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Thu Feb 2 18:09:34 2023 +0530

    new1 added (change using rebase reword)

commit 88057dee280e378973bf1f62d6fe56a9bad60abd
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date: Thu Feb 2 17:07:54 2023 +0530

    Create file2.txt

commit 0956dce7875de822b84596e4ad56bbd223bebd9c
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date: Thu Feb 2 17:07:16 2023 +0530

    Create file1.txt
```

USING REBASE DROP (remove any commit):

git log before rebase:

```
shubham@sf-cpu-313:~/githubngit/git_course$ git log
commit 204a9f0f848d58830953547707f53a5dd6d0d1f9 (HEAD -> cherryb)
Author: shubhampokar <shubham.p@sinformsolutions.com>
Date:   Fri Feb 3 12:39:53 2023 +0530

    c3 added in cherryb

commit b13a879ecb37872cbaa57e2a92aa668917051c07
Author: shubhampokar <shubham.p@sinformsolutions.com>
Date:   Fri Feb 3 12:39:19 2023 +0530

    c2 added in cherryb

commit 059083b40147c1a356faf427207d0a97caa51cdd
Author: shubhampokar <shubham.p@sinformsolutions.com>
Date:   Fri Feb 3 12:38:52 2023 +0530

    c1 added in cherryb

commit aa9e37396f7b728107b6e2ca06850efe9ac89052
Author: shubhampokar <shubham.p@sinformsolutions.com>
Date:   Fri Feb 3 11:22:41 2023 +0530

    fs and fs1 files created and added in features (change using amend)

commit 7e9353c9fa23ac40dbaa9b29ce6514dbf76045a2
Author: shubhampokar <shubham.p@sinformsolutions.com>
Date:   Thu Feb 2 18:10:00 2023 +0530

    new2 added

    f2.txt added in feature2

    test.txt added in main local before fetching new updates

commit 8c721ba249adab404cdc88f04ecf0f6769f678d7
Author: shubhampokar <shubham.p@sinformsolutions.com>
Date:   Thu Feb 2 18:09:34 2023 +0530

    new1 added (change using rebase reword)

commit 88057dee280e378973bf1f62d6fe56a9bad60abd
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date:   Thu Feb 2 17:07:54 2023 +0530

    Create file2.txt

commit 0956dce7875de822b84596e4ad56bbd223bebd9c
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date:   Thu Feb 2 17:07:16 2023 +0530

    Create file1.txt

shubham@sf-cpu-313:~/githubngit/git_course$ git rebase -i aa9e37396f7b728107b6e2ca06850efe9ac89052
Successfully rebased and updated refs/heads/cherryb.
```


selecting commits to drop:

```
GNU nano 6.2 /home/shubham/githubngit/git_course/.git/rebase-merge/git-rebase-todo *
d 059083b c1 added in cherryb
d b13a879 c2 added in cherryb
pick 204a9f0 c3 added in cherryb

# Rebase aa9e373..204a9f0 onto aa9e373 (3 commands)
#
# Commands:
# p, pick <commit> = use commit
# r, reword <commit> = use commit, but edit the commit message
# e, edit <commit> = use commit, but stop for amending
# s, squash <commit> = use commit, but meld into previous commit
# f, fixup [-C | -c] <commit> = like "squash" but keep only the previous
#                               commit's log message, unless -C is used, in which case
#                               keep only this commit's message; -c is same as -C but
#                               opens the editor
# x, exec <command> = run command (the rest of the line) using shell
# b, break = stop here (continue rebase later with 'git rebase --continue')
# d, drop <commit> = remove commit
# l, label <label> = label current HEAD with a name
# t, reset <label> = reset HEAD to a label
# m, merge [-C <commit> | -c <commit>] <label> [# <oneline>]
# .       create a merge commit using the original merge commit's
# .       message (or the oneline, if no original merge commit was
# .       specified); use -c <commit> to reword the commit message
#
# 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.
#
```

git log after dropping commit:

```
shubham@sf-cpu-313:~/githubngit/git_course$ git rebase -i aa9e37396f7b728107b6e2ca06850efe9ac89052
Successfully rebased and updated refs/heads/cherryb.
shubham@sf-cpu-313:~/githubngit/git_course$ git log
commit fea2ca4bad6319d0664eeaae889bd1e72e02b6c7 (HEAD -> cherryb)
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Fri Feb 3 12:39:53 2023 +0530

    c3 added in cherryb

commit aa9e37396f7b728107b6e2ca06850efe9ac89052
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Fri Feb 3 11:22:41 2023 +0530

    fs and fs1 files created and added in features (change using amend)

commit 7e9353c9fa23ac40dbaa9b29ce6514dbf76045a2
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Thu Feb 2 18:10:00 2023 +0530

    new2 added

    f2.txt added in feature2

    test.txt added in main local before fetching new updates

commit 8c721ba249adab404cdc88f04ecf0f6769f678d7
Author: shubhampokar <shubham.p@simformsolutions.com>
Date: Thu Feb 2 18:09:34 2023 +0530

    new1 added (change using rebase reword)

commit 88057dee280e378973bf1f62d6fe56a9bad60abd
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date: Thu Feb 2 17:07:54 2023 +0530

    Create file2.txt

commit 0956dce7875de822b84596e4ad56bbd223bebd9c
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date: Thu Feb 2 17:07:16 2023 +0530

    Create file1.txt

commit 2644c6a812c2aa9eab1515273dd260e4f3c668a7
Author: pokarshubham <124260976+pokarshubham@users.noreply.github.com>
Date: Thu Feb 2 17:06:43 2023 +0530

    Initial commit
shubham@sf-cpu-313:~/githubngit/git_course$
```