1. Set your username and email in git config

```
Iruchigautam@Practos-MacBook-Pro project % git config --list
    credential.helper=osxkeychain
    init.defaultbranch=main
    user.name=ruchgautammuski
    user.email=ruchi.gautam@practo.com
    core.repositoryformatversion=0
    core.filemode=true
    core.bare=false
    core.logallrefupdates=true
    core.ignorecase=true
    core.precomposeunicode=true
    remote.origin.url=https://github.com/ruchgautammuski/test.git
    remote.origin.fetch=+refs/heads/*:refs/remotes/origin/*
    branch.master.remote=origin
    branch.master.merge=refs/heads/master
```

2. Create a new branch named "feature-branch" and switch to it.

```
[ruchigautam@Practos-MacBook-Pro project % git checkout -b feature-branch Switched to a new branch 'feature-branch'
```

3. List all branches in the repository.

```
[ruchigautam@Practos-MacBook-Pro project % git branch
conflict-branch
* feature-branch
feature1
main
master
```

4. Delete the branch "feature-branch"

```
[ruchigautam@Practos-MacBook-Pro project % git branch -d feature-branch Deleted branch feature-branch (was d572f51).
```

5. How do you undo the last commit

```
[ruchigautam@Practos-MacBook-Pro project % git reset HEAD^
[ruchigautam@Practos-MacBook-Pro project % git reset --hard HEAD~1
HEAD is now at 3ef2d10 first commit
```

6. Create a new branch names "conflict-branch"

7. Create a another branch named "feature1"

```
[ruchigautam@Practos-MacBook-Pro project % git checkout -b feature1
Switched to a new branch 'feature1'
[ruchigautam@Practos-MacBook-Pro project % touch index.js
[ruchigautam@Practos-MacBook-Pro project % git add .
[ruchigautam@Practos-MacBook-Pro project % git commit -m"changes in feature 1 branch"
```

8. Make some changes in to feature1 branch

```
[ruchigautam@Practos-MacBook-Pro project % git checkout -b feature1
Switched to a new branch 'feature1'
[ruchigautam@Practos-MacBook-Pro project % touch index.js
[ruchigautam@Practos-MacBook-Pro project % git add .
[ruchigautam@Practos-MacBook-Pro project % git commit -m"changes in feature 1 branch"
```

9. Merge "feature1" branch into main branch

ruchigautam@Practos-MacBook-Pro project % git checkout -b conflict-branch Switched to a new branch 'conflict-branch'

10. Make changes in "conflict-branch", in the same file and line that you had made changes in feature1

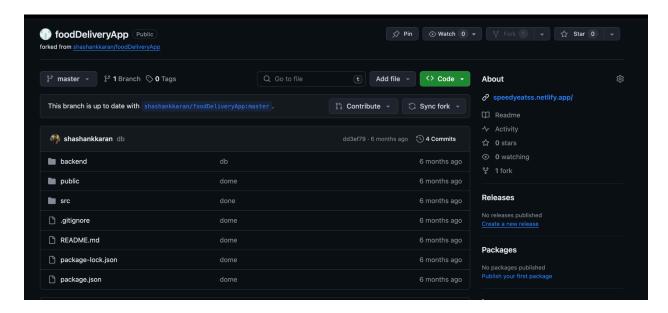
```
[ruchigautam@Practos-MacBook-Pro project % git branch
    conflict-branch
    feature1
* main
    master
[ruchigautam@Practos-MacBook-Pro project % git checkout feature1
Switched to branch 'feature1'
Your branch is up to date with 'origin/feature1'.
[ruchigautam@Practos-MacBook-Pro project % ls
index.css index.js
```

11. Merge master into conflict-branch [Attach screenshot of terminal & file]

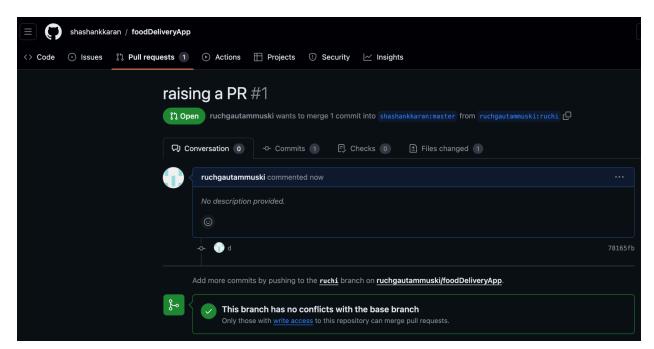
12. Resolve merge conflicts

- 13. Add a remote named "origin" pointing to a GitHub repository.
- ruchigautam@Practos-MacBook-Pro project % git remote add origin https://github.com/ruchgautammusk i/test2.git
 ruchigautam@Practos-MacBook-Pro project % ■

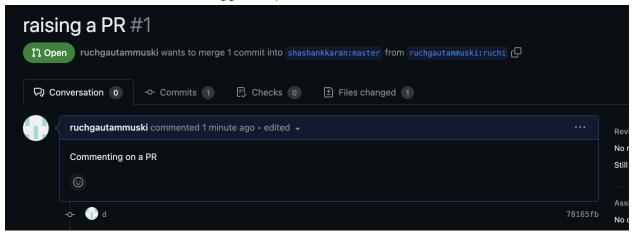
14. Fork a repository on GitHub and clone it to your local machine.



15. Create a new branch on your fork, make changes, and open a pull request to the original repository.



16. Comment on a PR and suggest improvements



17. Create a Git alias for the command 'git log --oneline' named 'gitlol'.

ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git config --global alias.gitlol "log --oneline"

```
"
• ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git gitlol
78165fb (HEAD -> ruchi, origin/ruchi) d
dd3ef79 (origin/master, origin/HEAD, master) db
18729a3 done
80da760 dome
35e27df dome
```

18. Create a pre-commit hook

```
器 ( )
           ≥ bin
bin ) No Selection
   1 # Check if this is the initial commit
   2 if git rev-parse --verify HEAD >/dev/null 2>&1
   3 then
         echo "pre-commit: About to create a new commit..."
         against=HEAD
   6 else
         echo "pre-commit: About to create the first commit...
         against=4b825dc642cb6eb9a060e54bf8d69288fbee4904
   9 fi
  10
  11 # Use git diff-index to check for whitespace errors
  12 echo "pre-commit: Testing for whitespace errors..."
  13 if ! git diff-index --check --cached $against
  14 then
         echo "pre-commit: Aborting commit due to whitespace (
  15
         exit 1
  16
  17 else
         echo "pre-commit: No whitespace errors :)"
  18
        exit 0
  19
  20 fi
```

- 19. You have made local changes in your branch, but you need to switch to another branch urgently without committing. How would you handle this situation?
- ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git stash Saved working directory and index state WIP on ruchi: 78165fb d
 - 20. You accidentally deleted a file in your local repository. How do you restore it using Git?

21. You have committed changes to your branch but forgot to include a file. How do you add the file to the last commit without creating a new commit?

```
ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git status
 On branch ruchi
 Your branch is up to date with 'origin/ruchi'.
 Changes not staged for commit:
    (use "git add/rm <file>..." to update what will be committed)
   (use "git restore <file>..." to discard changes in working directory)
                      src/screens/Home.js
          deleted:
 no changes added to commit (use "git add" and/or "git commit -a")
 ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git reset --hard origin/master
 HEAD is now at dd3ef79 db
 ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git status
 On branch ruchi
 Your branch is behind 'origin/ruchi' by 1 commit, and can be fast-forwarded.
    (use "git pull" to update your local branch)
 Untracked files:
   (use "git add <file>..." to include in what will be committed)
          src/,ecc
 nothing added to commit but untracked files present (use "git add" to track)
ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git add src/,ecc
▶ ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git commit -m"file added"
 [ruchi cf853a5] file added
  1 file changed, 0 insertions(+), 0 deletions(-)
  create mode 100644 src/,ecc
 ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git push'
 ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git push
 To https://github.com/ruchgautammuski/foodDeliveryApp.git
 hint: Updates were rejected because the tip of your current branch is behind
 hint: its remote counterpart. Integrate the remote changes (e.g.
 hint: 'git pull ...') before pushing again.
 hint: See the 'Note about fast-forwards' in 'git push --help' for details.
 ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git pull
 hint: You have divergent branches and need to specify how to reconcile them.
 hint: You can do so by running one of the following commands sometime before
 hint: your next pull:
 hint:
          git config pull.rebase false # merge
git config pull.rebase true # rebase
 hint:
 hint:
                                          # fast-forward only
 hint:
          git config pull.ff only
 hint:
 hint: You can replace "git config" with "git config --global" to set a default
 hint: preference for all repositories. You can also pass --rebase, --no-rebase, hint: or --ff-only on the command line to override the configured default per
 hint: invocation.
 fatal: Need to specify how to reconcile divergent branches.
ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git config pull.rebase false
 ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git push
 To https://github.com/ruchgautammuski/foodDeliveryApp.git
                       ruchi -> ruchi (non-fast-forward)
   ! [rejected]
 error: failed to push some refs to 'https://github.com/ruchgautammuski/foodDeliveryApp.git'
 hint: Updates were rejected because the tip of your current branch is behind
 hint: its remote counterpart. Integrate the remote changes (e.g. hint: 'git pull ...') before pushing again. hint: See the 'Note about fast-forwards' in 'git push —help' for details.
 ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git push -f
 Enumerating objects: 6, done.
 Counting objects: 100% (6/6), done.
 Delta compression using up to 12 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (4/4), 328 bytes | 328.00 KiB/s, done.
 Total 4 (delta 2), reused 0 (delta 0), pack-reused 0
 remote: Resolving deltas: 100% (2/2), completed with 2 local objects. To https://github.com/ruchgautammuski/foodDeliveryApp.git
  + 78165fb...cf853a5 ruchi -> ruchi (forced update)
 ruchigautam@Practos-MacBook-Pro foodDeliveryApp %
```

22. You want to discard all changes in your working directory and revert to the last commit. What Git command would you use?

```
■ ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git reset --hard origin/master
HEAD is now at dd3ef79 db
○ ruchigautam@Practos-MacBook-Pro foodDeliveryApp %
```

23. You need to view a specific commit's changes. What Git command can be used to show the changes introduced by a particular commit?

```
ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git log
                                     88431a6f99c (HEAD -> ruchi, origin/master, origin/HEAD, master)
 Author: Shashank Karan <shashankkaran999@gmail.com>
 Date:
        Thu Jul 20 19:56:23 2023 +0530
    db
 commit 18729a33f3587f9ef4b0e25c51cc5d89738eadb1
 Author: Shashank Karan <shashankkaran999@gmail.com>
        Thu Jul 20 18:41:16 2023 +0530
    done
 commit 80da7604aa04bbc792b83094812d927a73fa3ba9
 Author: Shashank Karan <shashankkaran999@gmail.com>
        Thu Jul 20 18:37:27 2023 +0530
 Date:
 commit 35e27dfe26f87fb078c8b89544266c2cd70992cb
 Author: Shashank Karan <shashankkaran999@gmail.com>
        Thu Jul 20 18:33:46 2023 +0530
    dome
 ruchigautam@Practos-MacBook-Pro foodDeliveryApp %
```

24. You want to change a commit message, after you have already committed, how do you do so?

```
    ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git commit ---amend -m "amending commit msg" [ruchi 2fb52d6] amending commit msg
    Author: Shashank Karan <shashankkaran999@gmail.com>
    Date: Thu Jul 20 19:56:23 2023 +0530
    2 files changed, 2 insertions(+), 2 deletions(-)
    ruchigautam@Practos-MacBook-Pro foodDeliveryApp %
```

25. Your colleague has made changes in their branch, and you want to incorporate those changes into your branch without merging. How do you achieve this?

```
    ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git commit --amend -m "amending commit msg"
[ruchi 2fb52d6] amending commit msg
Author: Shashank Karan <shashankkaran999@gmail.com>
Date: Thu Jul 20 19:56:23 2023 +0530
2 files changed, 2 insertions(+), 2 deletions(-)
    ruchigautam@Practos-MacBook-Pro foodDeliveryApp %
```

26. You've made several commits on a branch, but you want to club them into a single commit before pushing to the remote repository. How would you do that?

```
® ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git cherry-pick 18729a33f3587f9ef4b0e25c51cc5d89738eadb1
Auto-merging backend/index.js
CONFLICT (content): Merge conflict in backend/index.js
error: could not apply 18729a3... done
hint: After resolving the conflicts, mark them with
hint: "git add/rm <pathspec>", then run
hint: "git cherry-pick --continue".
hint: You can instead skip this commit with "git cherry-pick --skip".
hint: To abort and get back to the state before "git cherry-pick",
hint: run "git cherry-pick --abort".
```

27. You accidentally staged a file that you don't want to commit. How do you unstage it?

```
# See https://help.github.com/articles/ignor
# dependencies
node_modules
/.pnp
.pnp.js
/node_modules
# testing
/coverage
# production
/build
# misc
.DS_Store
.env.local
.env.development.local
.env.test.local
.env.production.local
npm-debug.log*
yarn-debug.log*
yarn-error.log*
*.yml
config/*
```

28. You don't want to commit files that have .yml in the end, and also files inside folder config. How do you do that?

```
ruchigautam@Practos-MacBook-Pro foodDeliveryApp % touch .gitignore

ruchigautam@Practos-MacBook-Pro foodDeliveryApp % vim .gitignore
ruchigautam@Practos-MacBook-Pro foodDeliveryApp % 

ruchigautam@Practos-MacBook-Pro foodDeliveryApp %
```

29. You want to see a list of all the files changed in the last commit. What Git command would you use?

```
    ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git diff --name-only HEAD^
        .gitignore
        backend/db.js
        backend/index.js
        src/screens/Home.js
        ruchigautam@Practos-MacBook-Pro foodDeliveryApp %
```

30. You realize that your local branch is outdated, and you want to fetch the latest changes from the remote repository. How do you do this without merging?

31. You accidentally deleted a branch. How do you recover it?

```
• ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git branch -D temp
Deleted branch temp (was 2fb52d6).
• ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git reflog

dd3ef79 (HEAD → master, upstream/master, origin/master, origin/HEAD) HEAD@{∅}: checkout: moving from temp to master
2fb52d6 (ruchi) HEAD@{1}: checkout: moving from ruchi to temp
2fb52d6 (ruchi) HEAD@{2}: commit (amend): amending commit msg
dd3ef79 (HEAD → master, upstream/master, origin/master, origin/HEAD) HEAD@{3}: reset: moving to origin/master
cf853a5 (origin/ruchi) HEAD@{4}: commit: file added
dd3ef79 (HEAD → master, upstream/master, origin/master, origin/HEAD) HEAD@{5}: reset: moving to origin/master
78165fb HEAD@{6}: reset: moving to HEAD
78165fb HEAD@{7}: commit: d
dd3ef79 (HEAD → master, upstream/master, origin/master, origin/HEAD) HEAD@{8}: checkout: moving from master to ruchi
dd3ef79 (HEAD → master, upstream/master, origin/master, origin/HEAD) HEAD@{9}: clone: from https://github.com/ruchgautammuski/foodDeliveryApp.git

□ ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git reset —-hard HEAD
HEAD is now at dd3ef79 db
```

32. You want to remove untracked files and directories from your working directory. What Git command would you use?

```
■ ruchigautam@Practos—MacBook—Pro foodDeliveryApp % git clean —fdX
```

33. You have a commit from a feature branch that you want to apply to the main branch without merging the entire feature branch.

```
© ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git cherry-pick dd3ef797b5fdc30677874178b3dab88431a6f99c
On branch master
Your branch is up to date with 'origin/master'.

You are currently cherry-picking commit dd3ef79.
  (all conflicts fixed: run "git cherry-pick --continue")
  (use "git cherry-pick --skip" to skip this patch)
  (use "git cherry-pick --abort" to cancel the cherry-pick operation)

nothing to commit, working tree clean
```

34. You mistakenly committed a change to the wrong branch and need to apply that commit to the correct branch.

```
    ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git branch new-branch 18729a33f3587f9ef4b0e25c51cc5d89738eadb1
    ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git checkout new-branch
    Switched to branch 'new-branch'
    warning: cancelling a cherry picking in progress
```

35. There is a series of commits on a feature branch, but you only want to cherry-pick a specific range of commits.

```
© ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git cherry-pick 35e27dfe26f87fb078c8b89544266c2cd70992cb .. 80da7604aa04bbc792b83094812d927a73fa3ba9
error: empty commit set passed
fatal: cherry-pick failed
○ ruchigautam@Practos-MacBook-Pro foodDeliveryApp % ■
```

36. You want to clone a GitHub repository onto your local machine, but you only need a specific branch. How can you achieve this?

```
ruchigautam@Practos-MacBook-Pro foodDeliveryApp % cd ../

ruchigautam@Practos-MacBook-Pro project % git clone -b master https://github.com/shashankkaran/crypto-gyan.git Cloning into 'crypto-gyan'...
remote: Enumerating objects: 42, done.
remote: Counting objects: 100% (42/42), done.
remote: Compressing objects: 100% (33/33), done.
remote: Total 42 (delta 8), reused 37 (delta 6), pack-reused 0
Receiving objects: 100% (42/42), 389.75 KiB | 493.00 KiB/s, done.
Resolving deltas: 100% (8/8), done.

ruchigautam@Practos-MacBook-Pro project % ■
```

37. You've made changes to your local repository and want to push them to your fork on GitHub. What Git commands would you use?

```
ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git branch
   master
 * new-branch
    ruchi
ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git add .
ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git commit -m"local changes"
  [new-branch 9024a33] local changes
  1 file changed, 1 insertion(+)

    ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git push origin new-branch

 Enumerating objects: 9, done.
 Counting objects: 100% (9/9), done.
 Delta compression using up to 12 threads
 Compressing objects: 100% (5/5), done.
 Writing objects: 100% (5/5), 438 bytes | 438.00 KiB/s, done. Total 5 (delta 4), reused 0 (delta 0), pack-reused 0
 remote: Resolving deltas: 100% (4/4), completed with 4 local objects.
 remote:
 remote: Create a pull request for 'new-branch' on GitHub by visiting:
               https://github.com/ruchgautammuski/foodDeliveryApp/pull/new/new-branch
 remote:
 remote:
 To https://github.com/ruchgautammuski/foodDeliveryApp.git
  * [new branch]
                        new-branch -> new-branch
🖟 ruchigautam@Practos-MacBook-Pro foodDeliveryApp % 📗
```

38. You want to create a new branch both locally and on GitHub to work on a new feature. What commands would you use?

```
▶ruchigautam@Practos—MacBook—Pro foodDeliveryApp % git checkout —b feature
  Switched to a new branch 'feature'
ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git add .
o ruchigautam@Practos-MacBook-Pro foodDeliveryApp %
<u>ruchigautam@Practos-MacBook-Pro</u> foodDeliveryApp % git commit -m"new branch feature added"
 On branch feature
 nothing to commit, working tree clean

ø ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git push

  fatal: The current branch feature has no upstream branch.
 To push the current branch and set the remote as upstream, use
      git push --set-upstream origin feature
 To have this happen automatically for branches without a tracking
 upstream, see 'push.autoSetupRemote' in 'git help config'.
ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git push --set-upstream origin feature
 Total 0 (delta 0), reused 0 (delta 0), pack-reused 0
  remote: Create a pull request for 'feature' on GitHub by visiting:
               https://github.com/ruchgautammuski/foodDeliveryApp/pull/new/feature
 remote:
 remote:
 To https://github.com/ruchgautammuski/foodDeliveryApp.git
  * [new branch]
                      feature -> feature
 branch 'feature' set up to track 'origin/feature'.
🥊 ruchigautam@Practos-MacBook-Pro foodDeliveryApp % 📗
```

39. You want to see the commit history of a GitHub repository. How can you do this using Git commands?

```
ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git log
commit 982433311a70c97371da997c2a89f30c5f088064 (HEAD -> feature, origin/new-branch, origin/feature, new-branch)
Author: ruchigautammuski <ruchi.gautam@practo.com>
Date: Wed Jan 24 22:49:52 2024 +0530

local changes

commit 18729a33f3587f9ef4b0e25c51cc5d89738eadb1
Author: Shashank Karan <shashankkaran999@gmail.com>
Date: Thu Jul 20 18:41:16 2023 +0530

done

commit 80da7604aa04bbc792b83094812d927a73fa3ba9
Author: Shashank Karan <shashankkaran999@gmail.com>
Date: Thu Jul 20 18:37:27 2023 +0530

dome

commit 35e27dfe26f87fb078c8b89544266c2cd70992cb
Author: Shashank Karan <shashankkaran999@gmail.com>
Date: Thu Jul 20 18:33:46 2023 +0530

dome

ruchigautam@Practos-MacBook-Pro foodDeliveryApp % ■
```

40. You've accidentally committed sensitive information and want to remove the commit from both your local and remote repositories on GitHub. What commands would you use?

41. You want to delete a remote branch on GitHub. What Git command would you use?

```
    ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git branch
    * feature
    master
    new-branch
    ruchi
    ruchigautam@Practos-MacBook-Pro foodDeliveryApp % git push origin --delete ruchi
    To https://github.com/ruchgautammuski/foodDeliveryApp.git
    - [deleted] ruchi
    ruchigautam@Practos-MacBook-Pro foodDeliveryApp % ■
```

- 42. Create a git repository for all your assignments and upload them in it. Ask your peers to code review it, and you need to code review your peers assignments https://github.com/ruchgautammuski/assignment
 - 43. Create a pull request on any open source library on github, attach the pull request link to the readme file of this project's repository

https://github.com/shashankkaran/foodDeliveryApp/pull/2