

Git practice

1.

Created a folder named practice_project and added a file named notes.txt in it.

```
cheshta@cheshta-Latitude-E7470:~$ cd Desktop/
cheshta@cheshta-Latitude-E7470:~/Desktop$ mkdir "Practice_project"
cheshta@cheshta-Latitude-E7470:~/Desktop$ ls
github_practice  Practice_project
cheshta@cheshta-Latitude-E7470:~/Desktop$ cd Practice_project/
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ touch notes.txt
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ ls
notes.txt
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ cat > notes.txt
Today I am practicing git command. I will start with git init and commit and pus
h it to github.
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ cat notes.txt
Today I am practicing git command. I will start with git init and commit and pus
h it to github.
```

Used “git status” command to check status.

Initialised git in the folder and used “git add” and “git commit -m” to add and commit the file.

```
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git status
fatal: not a git repository (or any of the parent directories): .git
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git init
Initialized empty Git repository in /home/cheshta/Desktop/Practice_project/.git/
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git status
On branch master

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        notes.txt

nothing added to commit but untracked files present (use "git add" to track)
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git add notes.txt
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git status
On branch master

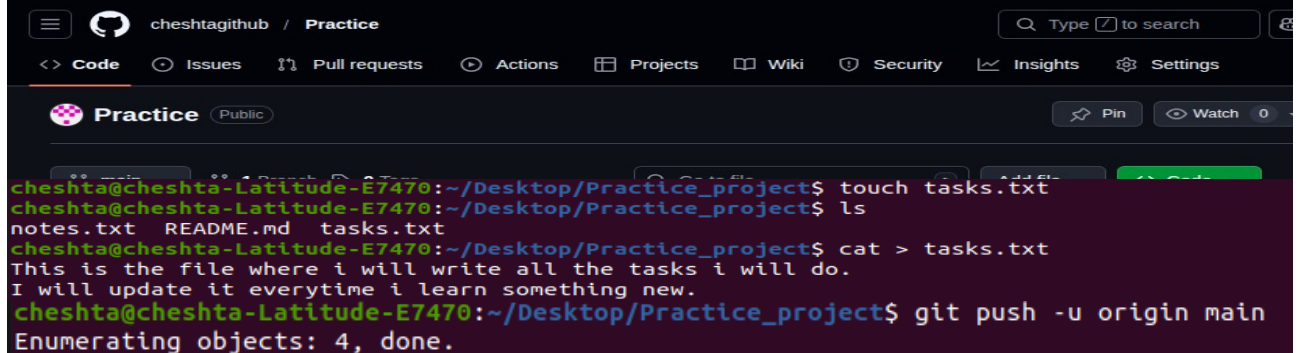
No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   notes.txt

cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git commit -m "create notes"
[master (root-commit) 843b15e] create notes
 1 file changed, 1 insertion(+)
 create mode 100644 notes.txt
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git status
On branch master
nothing to commit, working tree clean
```

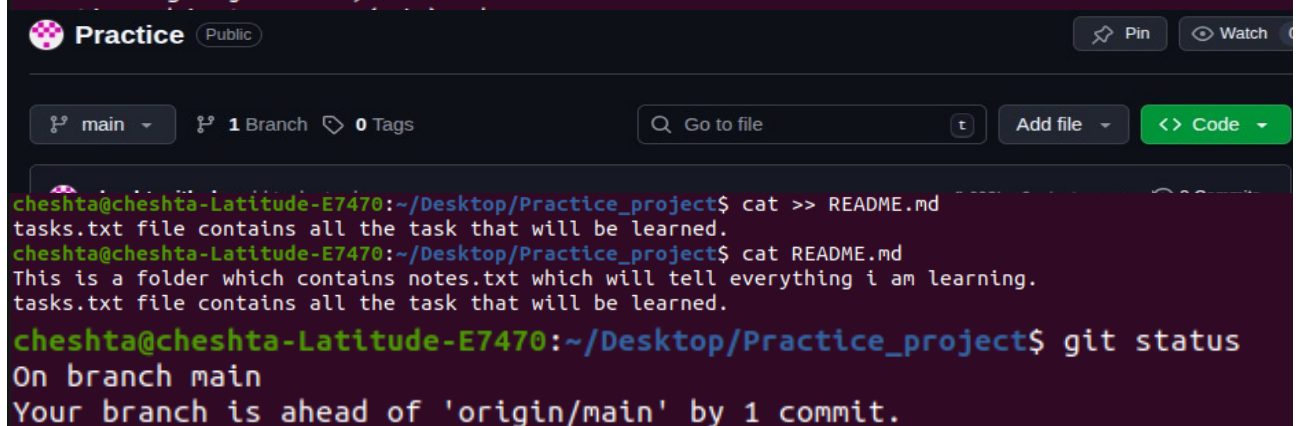
Created README.md and also add and commit it.

```
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ touch README.md
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ cat > README.md
This is a folder which contains notes.txt which will tell everything i am learning.
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ cat README.md
This is a folder which contains notes.txt which will tell everything i am learning.
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git branch -m main
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git branch
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git remote add origin git@github.com:cheshtagithub/Practice.git
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git remote -v
origin  git@github.com:cheshtagithub/Practice.git (fetch)
origin  git@github.com:cheshtagithub/Practice.git (push)
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git push -u origin main
Enumerating objects: 6, done.
```



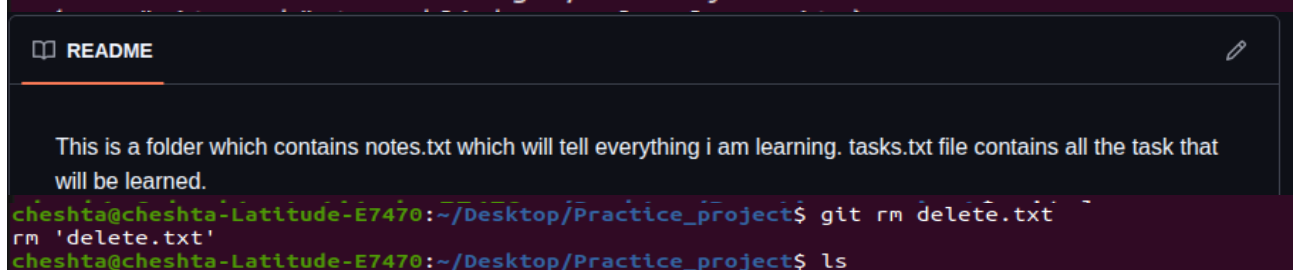
The screenshot shows the GitHub interface for a repository named 'Practice'. The README file is displayed, containing the text: 'This is a folder which contains notes.txt which will tell everything i am learning.' Below the README, a terminal window shows the following commands and output:

```
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ touch tasks.txt
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ ls
notes.txt README.md tasks.txt
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ cat > tasks.txt
This is the file where i will write all the tasks i will do.
I will update it everytime i learn something new.
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git push -u origin main
Enumerating objects: 4, done.
```



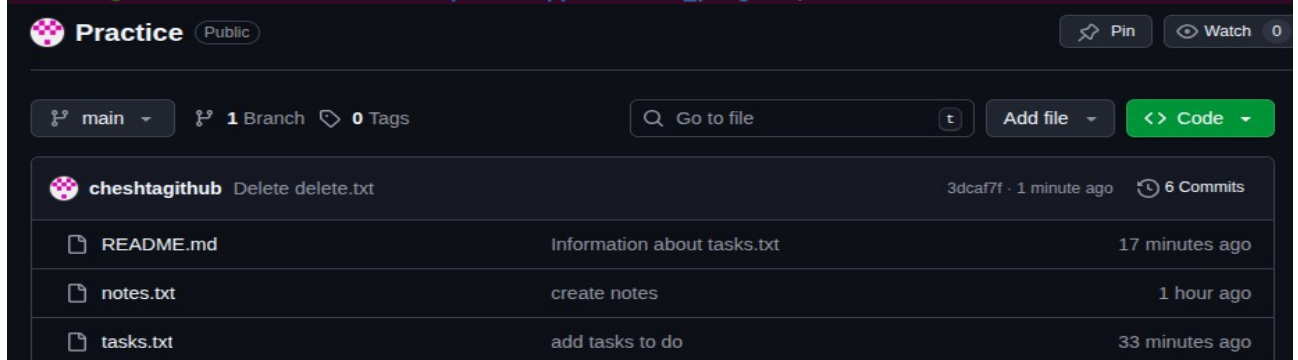
The screenshot shows the GitHub interface for the 'Practice' repository. The README file is displayed, containing the text: 'This is a folder which contains notes.txt which will tell everything i am learning. tasks.txt file contains all the task that will be learned.' Below the README, a terminal window shows the following commands and output:

```
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ cat >> README.md
tasks.txt file contains all the task that will be learned.
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ cat README.md
This is a folder which contains notes.txt which will tell everything i am learning.
tasks.txt file contains all the task that will be learned.
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git status
On branch main
Your branch is ahead of 'origin/main' by 1 commit.
```



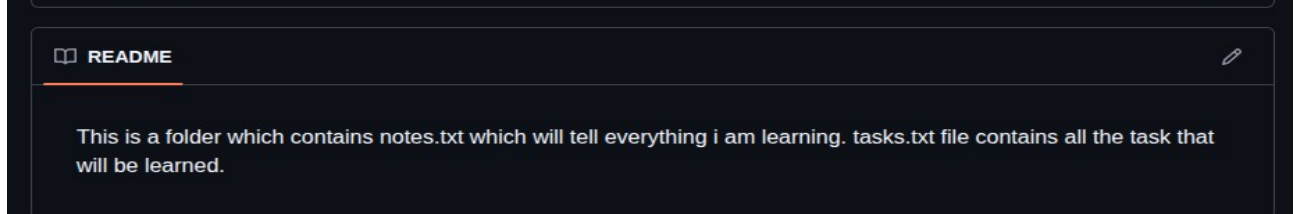
The screenshot shows the GitHub interface for the 'Practice' repository. The README file is displayed, containing the text: 'This is a folder which contains notes.txt which will tell everything i am learning. tasks.txt file contains all the task that will be learned.' Below the README, a terminal window shows the following commands and output:

```
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git rm delete.txt
rm 'delete.txt'
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ ls
```



The screenshot shows the GitHub interface for the 'Practice' repository. The commit history is displayed, showing a commit by 'cheshtagithub' titled 'Delete delete.txt' with a commit hash of '3dc4f7f' and a commit message of 'Delete delete.txt'. The commit history table is as follows:

File	Commit Message	Time Ago
README.md	Information about tasks.txt	17 minutes ago
notes.txt	create notes	1 hour ago
tasks.txt	add tasks to do	33 minutes ago

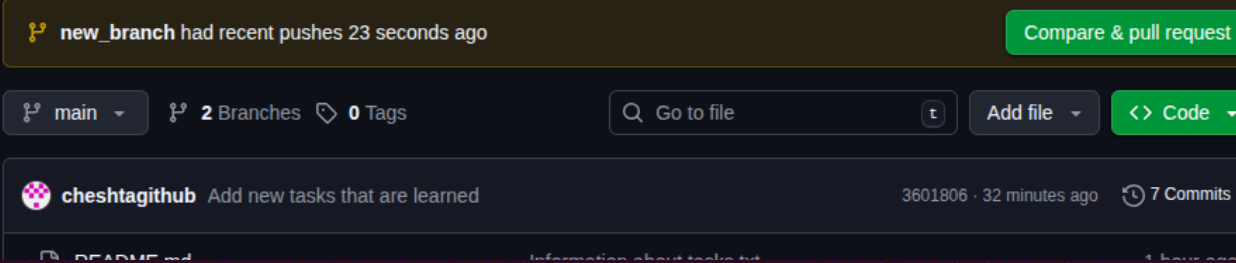


The screenshot shows the GitHub interface for the 'Practice' repository. The README file is displayed, containing the text: 'This is a folder which contains notes.txt which will tell everything i am learning. tasks.txt file contains all the task that will be learned.'

Making changes in more than one file and also using “git diff” to check the difference between commits.

```
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ cat > tasks.txt
I have learned how to commit changes, delete a file and now i will learn committing several files together and what is git diff.
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ cat notes.txt
Today I am practicing git command. I will start with git init and commit and push it to github.
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ cat > notes.txt
I have already learned several command.
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git status
On branch main
Your branch is up to date with 'origin/main'
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git commit -m "Add new tasks that are learned"
[main 3601806] Add new tasks that are learned
 2 files changed, 2 insertions(+), 4 deletions(-)
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git status
On branch main
Your branch is ahead of 'origin/main' by 1 commit.
  (use "git push" to publish your local commits)

nothing to commit, working tree clean
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git push
Enumerating objects: 7, done.
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git switch -c new_branch
Switched to a new branch 'new_branch'
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ touch changes.txt
```



```
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git branch
main
* new_branch
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git branch
* main
  new_branch
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git merge new_branch
Updating 3601806..664c018
Fast-forward
 changes.txt | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 changes.txt
```

pushed the changes to github:

```
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git status
On branch main
Your branch is ahead of 'origin/main' by 1 commit.
(use "git push" to publish your local commits)

nothing to commit, working tree clean
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git push
Total 0 (delta 0), reused 0 (delta 0)
To github.com:cheshtagithub/Practice.git
   3601806..664c018  main -> main
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean
```

The screenshot shows a GitHub repository interface for a repository named "Practice" by user "cheshtagithub". The repository is public and has 2 branches and 0 tags. The main branch is selected. The repository contains four files: README.md, changes.txt, notes.txt, and tasks.txt. The README.md file is open, showing its content: "This is a folder which contains notes.txt which will tell everything i am learning. tasks.txt file contains all the task that will be learned." The file changes table shows that changes.txt was added 17 minutes ago, and notes.txt and tasks.txt were added 35 minutes ago.

File	Commit Message	Time Ago
README.md	Information about tasks.txt	1 hour ago
changes.txt	Add file in new branch	17 minutes ago
notes.txt	Add new tasks that are learned	35 minutes ago
tasks.txt	Add new tasks that are learned	35 minutes ago

making changes in changes.txt in both main and new_branch :

```
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ cat > changes.txt
Making the change in the changes.txt in main branch.
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git add changes.txt
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git commit -m "Made change in main branch"
[main afbd60c] Made change in main branch
 1 file changed, 1 insertion(+), 1 deletion(-)
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git push
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 4 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 311 bytes | 311.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To github.com:cheshtagithub/Practice.git
   664c018..afbd60c  main -> main
```



```
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git checkout new_branch
Switched to branch 'new_branch'
Your branch is up to date with 'origin/new_branch'.
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git branch
* main
  new_branch
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ cat changes.txt
This is a file in new branch.
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ cat > changes.txt
Making change in file in new_branch branch.
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git add changes.txt
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git commit -m "Changes made in new_branch"
[new_branch 4d330ce] Changes made in new branch
1 file changed, 1 insertion(+), 1 deletion(-)
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git push
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 306 bytes | 306.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To github.com:cheshtagithub/Practice.git
664c018..4d330ce new_branch -> new_branch
```

Github before merging

The screenshot shows the GitHub interface for a repository named 'Practice' (Public). At the top, there's a notification bar stating 'new_branch had recent pushes 34 seconds ago' with a 'Compare & pull request' button. Below this, the repository navigation bar shows 'main' as the selected branch, with '2 Branches' and '0 Tags'. A search bar and 'Add file' button are also present. The repository owner 'cheshtagithub' is listed, along with '9 Commits'. A table of files is displayed:

File	Description	Time
README.md	Information about tasks.txt	1 hour ago
changes.txt	Made change in main branch	3 minutes ago
notes.txt	Add new tasks that are learned	42 minutes ago
tasks.txt	Add new tasks that are learned	42 minutes ago

The 'README' section is expanded, showing the text: 'This is a folder which contains notes.txt which will tell everything i am learning. tasks.txt file contains all the task that will be learned.'

Merging and resolving conflict:

```
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git branch
* main
  new_branch
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git merge new_branch
Auto-merging changes.txt
CONFLICT (content): Merge conflict in changes.txt
Automatic merge failed; fix conflicts and then commit the result.
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ nano changes.txt
```

.Before resolving the conflict

After

```
GNU nano 4.8
<<<<<< HEAD
Making the change in the changes.txt in main branch.
=====
Making change in file in new_branch branch.
>>>>>> new_branch
```

resolving the conflict:

```
GNU nano 4.8 changes.txt
Making the change in the changes.txt in main branch.
Making change in file in new_branch branch.
```

.commit the change in main branch:

```
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git add changes.txt
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ cat changes.txt
Making the change in the changes.txt in main branch.
Making change in file in new_branch branch.

cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git commit
[main 00fe49f] Merge branch 'new_branch' into main
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$
```

.

push it to github:

```
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git push
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 4 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 363 bytes | 181.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To github.com:cheshtagithub/Practice.git
   afbd60c..00fe49f  main -> main
```

The screenshot shows the GitHub web interface for a repository named 'Practice' by user 'cheshtagithub'. The repository is public and has 2 branches and 0 tags. The main branch is selected. The commit history shows a merge of 'new_branch' into 'main' at commit 00fe49f, 4 minutes ago, with 11 total commits. The file list includes README.md, changes.txt, notes.txt, and tasks.txt. The README content states: 'This is a folder which contains notes.txt which will tell everything i am learning. tasks.txt file contains all the task that will be learned.'

log of all the commits in oneline:

```
cheshta@cheshta-Latitude-E7470:~/Desktop/Practice_project$ git log --oneline
00fe49f (HEAD -> main, origin/main) Merge branch 'new_branch' into main
4d330ce (origin/new_branch, new_branch) Changes made in new_branch
afbd60c Made change in main branch
664c018 Add file in new branch
3601806 Add new tasks that are learned
3dc4f7f Delete delete.txt
40ead48 Add file to understand how delete from repo works
3a72709 Information about tasks.txt
afb603b add tasks to do
96d04cf create readme file
843b15e create notes
```