

Git assignment – Nucleusteq consulting pvt. ltd

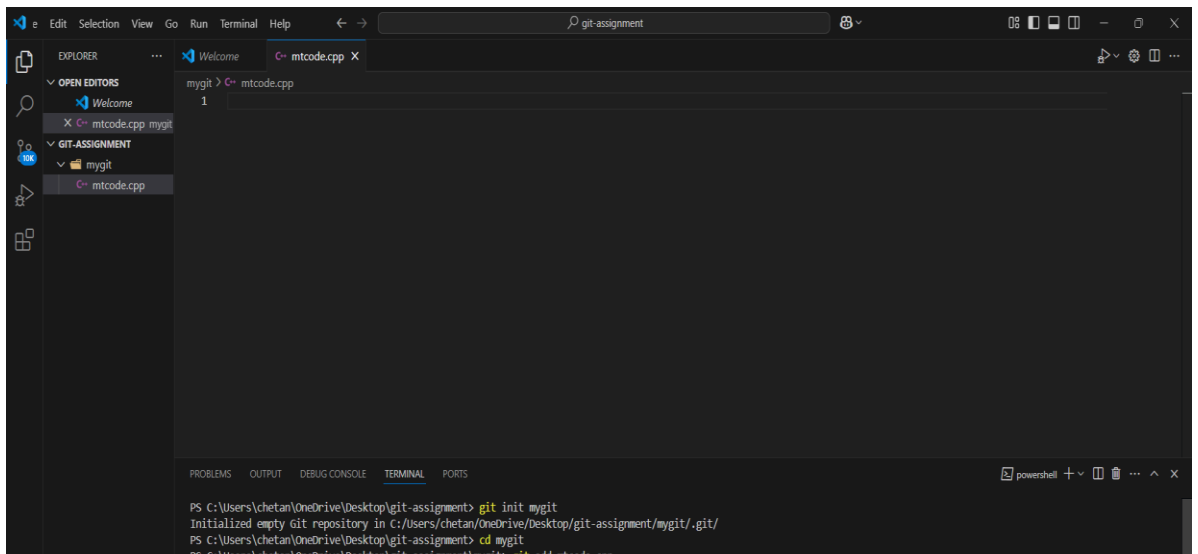
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1. Create a New Repository:-

The command for creating a new Git repository is: `git init`
`<foldername>`

I created a new repository named mygit using the following command in the terminal:



2. Create a New File

I created an empty C++ file named mtcod.cpp in the mygit directory.

Then, I added the file to the staging area using:

```
git add mtcod.cpp
```

Next, I committed the mtcod.cpp file to the master branch using:

```
git commit -m "First commit"
```

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```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

PS C:\Users\chetan\OneDrive\Desktop\git-assignment> git init mygit
Initialized empty Git repository in C:/Users/chetan/OneDrive/Desktop/git-assignment/mygit/.git/
PS C:\Users\chetan\OneDrive\Desktop\git-assignment> cd mygit
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git add mtcode.cpp
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git commit -m "first commit"
[master (root-commit) 3ca602f] first commit
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 mtcode.cpp
```

3. Create a Branch

The command to create a new branch is: `git branch <new-branch-name>`

I created a new branch named new-branch using: `git branch new-branch`

Then, I switched to the new branch using: `git checkout new-branch`

```
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git branch new-branch
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git checkout new-branch
Switched to branch 'new-branch'
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git status
On branch new-branch
nothing to commit, working tree clean
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> echo "working in newbranch" >>file.txt
```

4. Make Changes in the New Branch

I created a new file named file.txt and added it to the staging area of a new branch using the following commands: `git add file.txt`

```
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> echo "working in newbranch" >>file.txt
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git add file.txt
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git commit -m "committing in new branch"
[new-branch 9e0933d] committing in new branch
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 file.txt
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git branch
  master
* new-branch
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> |
```

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5. Merge Branches

The command for merging a branch into the current branch is:

```
git merge <branch_name>
```

I merged the newly created branch named new-branch into the master branch using the following steps:

```
git checkout master
```

```
git merge new-branch
```

```
create mode 100644 file.txt
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git branch
master
* new-branch
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git checkout main
error: pathspec 'main' did not match any file(s) known to git
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git checkout master
Switched to branch 'master'
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git merge new-branch
Updating 3ca602f..9e0933d
Fast-forward
 file.txt | Bin 0 -> 46 bytes
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 file.txt
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> |
```

6. Pull Changes from Remote

The command for pulling changes from a remote repository is:

```
git pull origin main
```

First, I added a remote repository using:

```
git remote add origin repository_link
```

Then, I verified the remote repository using:

```
git remote -v
```

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Finally, I pulled the latest changes from the remote repository into my local machine using: `git pull origin main`

```
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git remote -v
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git remote add origin https://github.com/chetanp9/Weather-App.git
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git remote -v
origin https://github.com/chetanp9/Weather-App.git (fetch)
origin https://github.com/chetanp9/Weather-App.git (push)
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git pull origin main

From https://github.com/chetanp9/Weather-App
* branch      master      -> FETCH_HEAD
Merge made by the 'ort' strategy.
 .gitignore      | 1 +
 assets/cloud.png | Bin 0 -> 3751 bytes
 assets/favicon.ico | Bin 0 -> 15406 bytes
 assets/humidity.png | Bin 0 -> 13731 bytes
 assets/loading.gif | Bin 0 -> 2006754 bytes
 assets/location.png | Bin 0 -> 37836 bytes
 assets/not-found.png | Bin 0 -> 25817 bytes
 assets/search.png | Bin 0 -> 2483 bytes
 assets/wind.png | Bin 0 -> 1526 bytes
 index.html      | 100 +++++
 index.js        | 167 +++++
 style.css        | 221 +++++
12 files changed, 489 insertions(+)
create mode 100644 .gitignore
create mode 100644 assets/cloud.png
create mode 100644 assets/favicon.ico
create mode 100644 assets/humidity.png
create mode 100644 assets/loading.gif
create mode 100644 assets/location.png
create mode 100644 assets/not-found.png
create mode 100644 assets/search.png
create mode 100644 assets/wind.png
create mode 100644 index.html
create mode 100644 index.js
create mode 100644 style.css
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit>
```

7. View Git Log and History

The command for viewing the Git commit history is: `git log`

The Git HEAD pointer refers to the latest commit in the current branch.

```
Run  Terminal  Help  git-assignment
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS
create mode 100644 assets/location.png
create mode 100644 assets/not-found.png
create mode 100644 assets/search.png
create mode 100644 assets/wind.png
create mode 100644 index.html
create mode 100644 index.js
create mode 100644 style.css
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git diff
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git log
commit 348c125d67e261c642b937f0ec1b851b64cd7a06 (HEAD -> master)
Merge: 9e0933d 0f14104
Author: chetan <chetanpal98@outlook.com>
Date: Mon Feb 17 16:35:27 2025 +0530

    Merge branch 'master' of https://github.com/chetanp9/Weather-App

commit 9e0933d67751955c85f5d8ea50e1290f5c72b9be (new-branch)
Author: chetan <chetanpal98@outlook.com>
Date: Mon Feb 17 16:29:08 2025 +0530

    committing in new branch

commit 3ca602f800068307ba75dec6640aeb6b875804d5
Author: chetan <chetanpal98@outlook.com>
Date: Mon Feb 17 16:26:09 2025 +0530

    first commit

commit 0f141e4fb052188cbcc7af8b697f90a3a76bca59 (origin/master)
Author: chetan <chetanpal98@outlook.com>
Date: Tue Apr 16 22:26:30 2024 +0530

    first
~
~
~
~
~
```

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8. Git Status and Staging

The **git status** command is used to view the untracked and modified files in the repository.

I created a new text file named **file2.txt** and added it to the staging area using the command:

git add file2.txt

Then, I used the **git reset file2.txt** command to move the file from the staging area back to the working directory (local machine).

```
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git status
On branch master
nothing to commit, working tree clean
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> echo "Staging and git status" >> file2.txt
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        file2.txt

nothing added to commit but untracked files present (use "git add" to track)
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git add file2.txt
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   file2.txt

PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git reset file2.txt
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        file2.txt

nothing added to commit but untracked files present (use "git add" to track)
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit>
```

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9. Revert and Reset.

git revert is a command used to undo a specific commit while preserving the history of the repository.

```
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git branch
* master
  new-branch
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git commit -m "third commit"
[master 9ad5253] third commit
1 file changed, 0 insertions(+), 0 deletions(-)
delete mode 100644 file2.txt
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git status
On branch master
nothing to commit, working tree clean
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git show head
commit 9ad5253af3985ddd1cda78063716b996da16a98f (HEAD -> master)
Author: chetan <chetanpal98@outlook.com>
Date: Mon Feb 17 16:49:16 2025 +0530

    third commit

diff --git a/file2.txt b/file2.txt
deleted file mode 100644
index e9aa9c2..0000000
Binary files a/file2.txt and /dev/null differ
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git revert head
[master 28298d9] Revert "third commit"
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 file2.txt
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit> git show head
commit 28298d980027d172415f3a9de77fc2c7e057baef (HEAD -> master)
Author: chetan <chetanpal98@outlook.com>
Date: Mon Feb 17 16:49:57 2025 +0530

    Revert "third commit"

    This reverts commit 9ad5253af3985ddd1cda78063716b996da16a98f.

    reverting third commit

diff --git a/file2.txt b/file2.txt
new file mode 100644
index 0000000..e9aa9c2
Binary files /dev/null and b/file2.txt differ
PS C:\Users\chetan\OneDrive\Desktop\git-assignment\mygit>
```