

Commands for Git: Open Source Contribution

1) If You want to see the git version

git --version

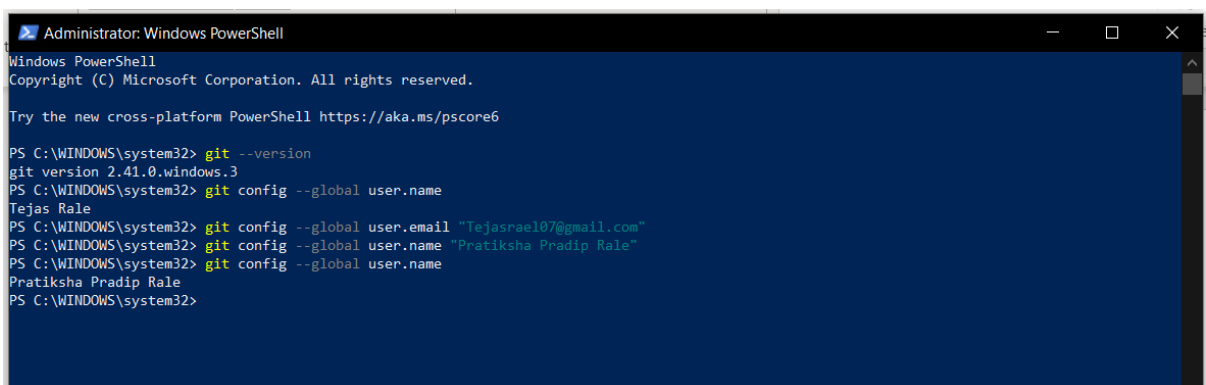
2) Want to add user's name or email address

git config --global user.name "Pratiksha Pradip Rale"

git config --global user.email "pprale@mitaoe.ac.in"

3) Want to show name and email through command prompt or windows powershell

git config --global user.name



```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\WINDOWS\system32> git --version
git version 2.41.0.windows.3
PS C:\WINDOWS\system32> git config --global user.name
Tejas Rale
PS C:\WINDOWS\system32> git config --global user.email "Tejasrael07@gmail.com"
PS C:\WINDOWS\system32> git config --global user.name "Pratiksha Pradip Rale"
PS C:\WINDOWS\system32> git config --global user.name
Pratiksha Pradip Rale
PS C:\WINDOWS\system32>
```

4) Want to edit information through config file

git config --global --edit



```
Administrator: Windows PowerShell
[user]
name = Pratiksha Pradip Rale
email = Tejasrael07@gmail.com
```

Editable changes under config file:



```
Administrator: Windows PowerShell
[user]
name = Pratiksha Pradip Rale
email = pratiksharale221@gmail.com
```

If you try to make changes withing same file:

```
E325: ATTENTION
Found a swap file by the name "~/.gitconfig.swp"
    owned by: Admin    dated: Mon Aug 07 15:53:27 2023
    file name: ~/.gitconfig
    modified: YES
    user name: Admin   host name: DESKTOP-SETOMG1
    process ID: 1791
While opening file "/c/Users/Admin/.gitconfig"
    dated: Mon Aug 07 15:26:30 2023

(1) Another program may be editing the same file.  If this is the case,
    be careful not to end up with two different instances of the same
    file when making changes.  Quit, or continue with caution.
(2) An edit session for this file crashed.
    If this is the case, use ":recover" or "vim -r /c/Users/Admin/.gitconfig"
    to recover the changes (see ":help recovery").
    If you did this already, delete the swap file "/c/Users/Admin/.gitconfig.swp"
    to avoid this message.

swap file "~/.gitconfig.swp" already exists!
[O]pen Read-Only, [E]dit anyway, [R]ecover, [D]elete it, [Q]uit, [A]bort:
swap file "~/.gitconfig.swp" already exists!
[O]pen Read-Only, [E]dit anyway, [R]ecover, [D]elete it, [Q]uit, [A]bort: _
```

Making new directory:

mkdir newProject22

```
PS C:\Users\Admin> mkdir newProject22

Directory: C:\Users\Admin


Mode                LastWriteTime         Length Name
----                -
d-----          07-08-2023      16:01                newProject22

PS C:\Users\Admin>
```

Comes under that particular folder:

cd newProject22

```
PS C:\Users\Admin> cd newProject22/
PS C:\Users\Admin\newProject22>
```

git init

ls

ls -a

Below command is used for showing the history of the changes and have to commit it.

```
PS C:\Users\Admin\newProjectGit> git status
On branch master

No commits yet

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

nothing added to commit but untracked files present (use "git add" to track)
PS C:\Users\Admin\newProjectGit>
```

Below command is for used for keeping track on particular file:

```
PS C:\Users\Admin\newProjectGit> git add sum.java
PS C:\Users\Admin\newProjectGit> git status
On branch master

No commits yet

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

PS C:\Users\Admin\newProjectGit>
```

For Committing project:

```
PS C:\Users\Admin\newProjectGit> git commit -m "initial commit"
[master (root-commit) a594494] initial commit
1 file changed, 8 insertions(+)
create mode 100644 sum.java
PS C:\Users\Admin\newProjectGit>
```

For showing that how many times commits has been happened:

```
PS C:\Users\Admin\newProjectGit> git log
commit a594494daa552dea9ec41cc89d30af71174d94ae (HEAD -> master)
Author: Pratiksha Pradip Rale <Tejasrael07@gmail.com>
Date:   Mon Aug 7 16:40:44 2023 +0530

    initial commit
PS C:\Users\Admin\newProjectGit>
```

After adding one more file in the folder: Changes file and untracked files.

```
no changes added to commit (use "git add" and/or "git commit -a")
PS C:\Users\Admin\newProjectGit> git status
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   sum.java

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

no changes added to commit (use "git add" and/or "git commit -a")
PS C:\Users\Admin\newProjectGit>
```

After adding diff.java file to through linux console

```
no changes added to commit (use "git add" and/or "git commit -a")
PS C:\Users\Admin\newProjectGit> git add diff.java
PS C:\Users\Admin\newProjectGit> git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   diff.java

Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   sum.java

PS C:\Users\Admin\newProjectGit>
```

Both the commits has different hash-code:

```
create mode 100644 diff.java
PS C:\Users\Admin\newProjectGit> git log
commit 4c062b64fd066ff014ae33b448ffc56005a13c5e (HEAD -> master)
Author: Pratiksha Pradip Rale <Tejasrael07@gmail.com>
Date:   Mon Aug 7 17:03:40 2023 +0530

    adding diff.java file

commit a594494daa552dea9ec41cc89d30af71174d94ae
Author: Pratiksha Pradip Rale <Tejasrael07@gmail.com>
Date:   Mon Aug 7 16:40:44 2023 +0530

    initial commit
PS C:\Users\Admin\newProjectGit>
```

git add. -> Command is used for making all files in the staging area or we can say that, we can add all files at the same time in the staging area.

git checkout <hashcode> -> for discard all the changes, expect starting change.

git branch -> For checking the branch name (mostly it will be master branch)

```
initial commit
PS C:\Users\Admin\newProjectGit> git branch
* master
PS C:\Users\Admin\newProjectGit> git branch
* master
PS C:\Users\Admin\newProjectGit> git checkout master
Already on 'master'
M    sum.java
PS C:\Users\Admin\newProjectGit>
```

git branch dev -> If you want to make branch other than master branch -> Basically, master branch is connected to the all other branches that you make.

```
PS C:\Users\Admin\newProjectGit> git branch dev
PS C:\Users\Admin\newProjectGit>
```

git branch -> Here, now it is showing two different branches: dev & master

```
PS C:\Users\Admin\newProjectGit> git branch
dev
* master
PS C:\Users\Admin\newProjectGit>
```

git checkout dev -> If you want to switch from one branch to another branch:

```
PS C:\Users\Admin\newProjectGit> git checkout dev
Switched to branch 'dev'
M    sum.java
PS C:\Users\Admin\newProjectGit>
```

git checkout -b pratiksha/multiply→ This command is useful for making new branch and directly switching into it.

```
PS C:\Users\Admin\newProjectGit> git checkout -b pratiksha/multiply
Switched to a new branch 'pratiksha/multiply'
PS C:\Users\Admin\newProjectGit>
```

git status→ for seeing your file is on track or not, for that you have to add and commit that file to the branch.

```
PS C:\Users\Admin\newProjectGit> git status
On branch pratiksha/multiply
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   sum.java

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

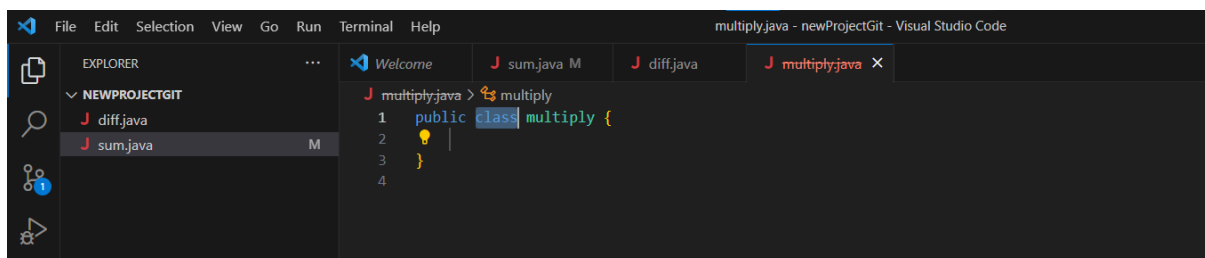
no changes added to commit (use "git add" and/or "git commit -a")
PS C:\Users\Admin\newProjectGit>
```

```
PS C:\Users\Admin\newProjectGit> git add multiply.java
PS C:\Users\Admin\newProjectGit> git commit -m "adding multiply.java program"
[pratiksha/multiply 99f97d1] adding multiply.java program
1 file changed, 3 insertions(+)
create mode 100644 multiply.java
PS C:\Users\Admin\newProjectGit>
```

IMPORTANT:

- When I tried to switch from one branch to another, it is not showing me files that I have created under previous branch, it is just showing me which files that I have created before in that particular branch.
- E.g., I have created files `add.java` & `diff.java` under the **dev** branch and I get switched to new branch i.e., **Pratiksha/multiply** branch and afterwards, I have created one file in that branch which is `multiply.java`.
- Again, I get switched from `pratiksha/multiply` branch to `dev` branch and in vscode it is not showing me the `multiply.java` file.

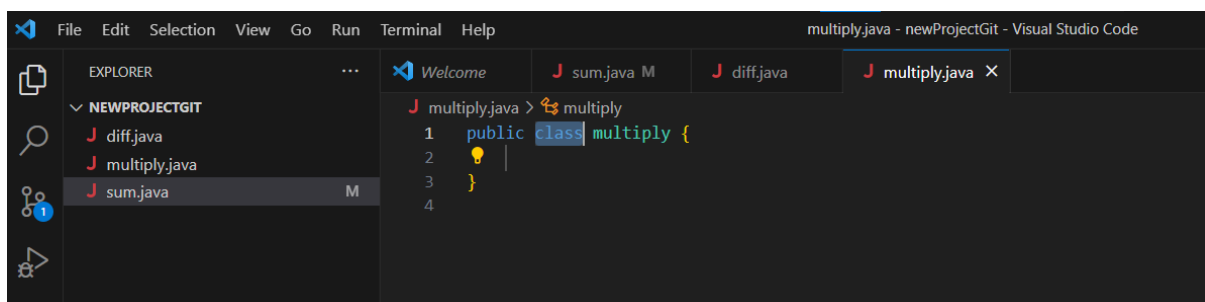
```
PS C:\Users\Admin\newProjectGit> git checkout dev
Switched to branch 'dev'
M      sum.java
PS C:\Users\Admin\newProjectGit>
```



Note: `git merge pratiksha/multiply` → If you want to add that `multiply.java` file from that `pratiksha/multiply` branch to this `dev` branch, means we want that `dev` branch also has that features we can do that by using the **merge** command.

```
PS C:\Users\Admin\newProjectGit> git merge pratiksha/multiply
Updating 4c062b6..99f97d1
Fast-forward
 multiply.java | 3 +++
 1 file changed, 3 insertions(+)
 create mode 100644 multiply.java
PS C:\Users\Admin\newProjectGit>
```

File has been added to the vscode means under the **dev** branch.



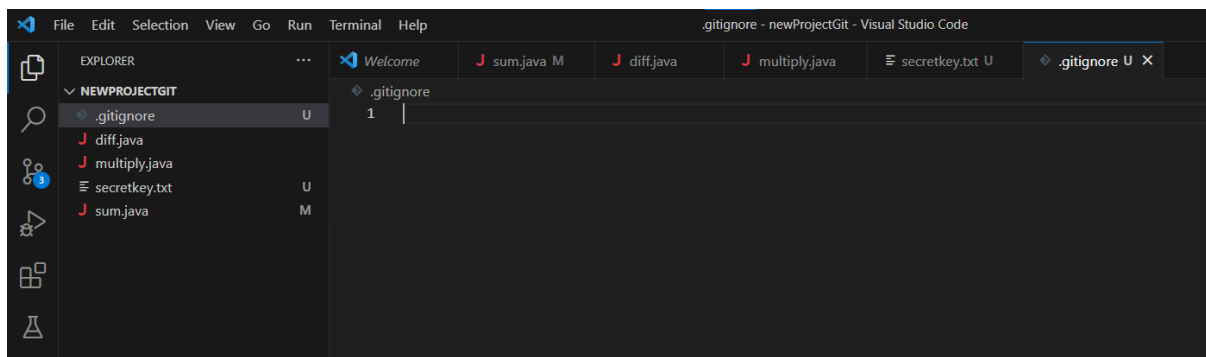
git merge dev → When you are making changes under different branches that changes are not shown to the master branch, for that we have to switch to the master branch and merge all the changes from the previous branch.

```
PS C:\Users\Admin\newProjectGit> git checkout master
Switched to branch 'master'
M      sum.java
PS C:\Users\Admin\newProjectGit> git merge dev
Updating 4c062b6..99f97d1
Fast-forward
 multiply.java | 3 +++
 1 file changed, 3 insertions(+)
 create mode 100644 multiply.java
PS C:\Users\Admin\newProjectGit>
```

HIDE: If you want any sensitive information should not be shown to the GitHub ecosystem.

For that you make gitignore file, there are two ways to make it →

1. touch .Gitignore
2. You can make New File in VSCode. (.gitignore)



It is showing:

```
PS C:\Users\Admin\newProjectGit> git status
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
       modified:   sum.java

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

no changes added to commit (use "git add" and/or "git commit -a")
PS C:\Users\Admin\newProjectGit>
```


This secretkey.txt file will get hide.



It is not showing:

```
PS C:\Users\Admin\newProjectGit> git status
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   sum.java

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

no changes added to commit (use "git add" and/or "git commit -a")
PS C:\Users\Admin\newProjectGit>
```

Pushing Project through Github:

```
PS C:\Users\Admin\newProjectGit> git remote -v
PS C:\Users\Admin\newProjectGit>
```

...or push an existing repository from the command line

```
git remote add origin https://github.com/Pratiksha228/Git.git
git branch -M main
git push -u origin main
```