Git

Basic Commands:

1. **Clone**: git clone https:github.com/username/repo-name.git

```
C:\Users\murta\Documents>git clone https://github.com/murtaza-kgl/TarentoTutorial.git
Cloning into 'TarentoTutorial'...
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (3/3), done.
```

2. Add: To add files or to make changes in the repo, first change in the working repo using cd repo-name.

   git add file-name.

```
murtaza@Murtaza MINGW64 ~/Documents/TarentoTutorial (main)
$ git add primeNumer.cpp
```

3. Commit: git commit -m "Message related recent commit"

```
murtaza@Murtaza MINGW64 ~/Documents/TarentoTutorial (main)
$ git commit -m "First commit"
[main 768a2b7] First commit
 1 file changed, 31 insertions(+)
 create mode 100644 primeNumer.cpp
```

4. Push: git push origin main

```
murtaza@Murtaza MINGW64 ~/Documents/TarentoTutorial (main)
$ git push origin main
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 8 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 542 bytes | 542.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/murtaza-kgl/TarentoTutorial.git
   1d400bd..768a2b7  main -> main
```

5. Status: git status

```
murtaza@Murtaza MINGW64 ~/Documents/TarentoTutorial (main)
$ git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean
```

6. Log: `git log`

```
murtaza@Murtaza MINGW64 ~/Documents/TarentoTutorial (main)
$ git log
commit 768a2b74eccba0c72a035bcef21fad04e3ffd7f3 (HEAD -> main, origin/main, orig
in/HEAD)
Author: murtaza-kgl <murtazaeztecs@gmail.com>
Date:   Sun May 21 19:39:12 2023 +0530

    First commit

commit 1d400bdad453e503050e202d204932f44090d85b
Author: Ghulam Murtaza <78228323+murtaza-kgl@users.noreply.github.com>
Date:   Sun May 21 17:42:10 2023 +0530

    Initial commit
```

7. Branch: `git branch new-branch-name`

```
murtaza@Murtaza MINGW64 ~/Documents/TarentoTutorial (main)
$ git branch newBranch

murtaza@Murtaza MINGW64 ~/Documents/TarentoTutorial (main)
$ git branch
* main
  newBranch
```

8. Switching to new branch: `git checkout new-branch-name`

```
murtaza@Murtaza MINGW64 ~/Documents/TarentoTutorial (main)
$ git checkout newBranch
Switched to branch 'newBranch'
```

9. Modifying in new-branch:

```
murtaza@Murtaza MINGW64 ~/Documents/TarentoTutorial (newBranch)
$ git commit -m "Commiting in newBranch"
[newBranch 9abdd98] Commiting in newBranch
 1 file changed, 1 insertion(+), 1 deletion(-)
```

10. Pushing in new-branch: git push –set-upstream origin new-branch-name

```
murtaza@Murtaza MINGW64 ~/Documents/TarentoTutorial (newBranch)
$ git push --set-upstream origin newBranch
Enumerating objects: 8, done.
Counting objects: 100% (8/8), done.
Delta compression using up to 8 threads
Compressing objects: 100% (6/6), done.
Writing objects: 100% (6/6), 630 bytes | 630.00 KiB/s, done.
Total 6 (delta 2), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (2/2), completed with 1 local object.
remote:
remote: Create a pull request for 'newBranch' on GitHub by visiting:
remote:        https://github.com/murtaza-kgl/TarentoTutorial/pull/new/newBranch
remote:
To https://github.com/murtaza-kgl/TarentoTutorial.git
 * [new branch]      newBranch -> newBranch
branch 'newBranch' set up to track 'origin/newBranch'.
```

11. Merge branch: git merge new-branch-name

```
murtaza@Murtaza MINGW64 ~/Documents/TarentoTutorial (main)
$ git merge newBranch
Updating 768a2b7..9abdd98
Fast-forward
 primeNumer.cpp | 4 ++--
 1 file changed, 2 insertions(+), 2 deletions(-)
```

12. Create and delete new branch: git branch –delete branch-name

```
murtaza@Murtaza MINGW64 ~/Documents/TarentoTutorial (main)
$ git branch trashBranch

murtaza@Murtaza MINGW64 ~/Documents/TarentoTutorial (main)
$ git branch
* main
  newBranch
  trashBranch
```

```
murtaza@Murtaza MINGW64 ~/Documents/TarentoTutorial (main)
$ git branch --delete trashBranch
Deleted branch trashBranch (was 9abdd98).

murtaza@Murtaza MINGW64 ~/Documents/TarentoTutorial (main)
$ git branch
* main
  newBranch
```