

Git Init

```
suhai@DESKTOP-C69A5LF MINGW64 ~/Project2 (main)
$ git init
Reinitialized existing Git repository in C:/Users/suhai/Project2/.git/
```

Explanation: "Git init" is used to initialize a repository. this is the first command when getting started with git

Git Status

```
suhai@DESKTOP-C69A5LF MINGW64 ~/Project2 (master)
$ git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
    new file:   assignment1/task1/task1.md
```

Explanation: "Git status" displays the state of the working directory

Git Commit

```
suhai@DESKTOP-C69A5LF MINGW64 ~/Project2 (master)
$ git commit -m "messages"
[master (root-commit) f8f0987] messages
1 file changed, 1 insertion(+)
create mode 100644 assignment1/task1/task1.md
```

Explanation: "Git commit" takes the staged changes and commits it to the project history

Git Push

```

suhai@DESKTOP-C69A5LF MINGW64 ~/Project2 (main)
$ git push origin main
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Writing objects: 100% (5/5), 299 bytes | 1024 bytes/s, done.
Total 5 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/Suhaib-88/gitAssignments.git
 * [new branch]      main -> main

```

Explanation: "Git push" command uploads the contents from local repository to a remote repository(like github repo).

Git Branch

```

suhai@DESKTOP-C69A5LF MINGW64 ~/Project2 (master)
$ git branch -M main

```

Explanation: "Git branch <branch name>" creates a new branch

```

suhai@DESKTOP-C69A5LF MINGW64 ~/Project2 (main)
$ git branch new_branch

```

```

suhai@DESKTOP-C69A5LF MINGW64 ~/Project2 (main)
$ git branch
* main
  new branch

```

Explanation: "Git branch" gets the name of all the branch

```

suhai@DESKTOP-C69A5LF MINGW64 ~/Project2 (main)
$ git switch new_branch
Switched to branch 'new_branch'

```

Explanation: "Git switch <branch name>" switches from current branch to the mentioned branch

```

suhai@DESKTOP-C69A5LF MINGW64 ~/Project2 (new_branch)
$ git checkout main
Switched to branch 'main'

```

Explanation: "Git checkout <branch name>" is another command for switching between branches.

```

suhai@DESKTOP-C69A5LF MINGW64 ~/Project2 (main)
$ git branch -d new_branch
Deleted branch new_branch (was f8f0987).

```

Explanation: "Git branch -d <branch name>" s the mentioned branch.

Git Merge

```

suhai@DESKTOP-C69A5LF MINGW64 ~/Project2 (main)
$ git merge new_branch1
Updating f8f0987..5f66073
Fast-forward
 assignment1/task1/task1.md | 2 +-
 1 file changed, 1 insertion(+), 1 deletion(-)

```

Explanation: "Git merge" take the commits from the master and feature branches, then tries to find a common base commit between them.

Git Log

```

suhai@DESKTOP-C69A5LF MINGW64 ~/Project2 (main)
$ git log
commit 5f660738daed1aa793b219de5f82db8ac22ca301 (HEAD -> main, origin/new_branch1, origin/main, new_branch1)
Author: suhai <arssub726@gmail.com>
Date:   Wed Oct 12 01:00:56 2022 +0530

    updated

commit f8f0987930086e8968c1896bcec26bba0bab2636
Author: suhai <arssub726@gmail.com>
Date:   Wed Oct 12 00:46:16 2022 +0530

```

Explanation: "Git log" Lets developers explore the previous revisions of a project

git config

```

suhai@DESKTOP-C69A5LF MINGW64 ~/Project2 (main)
$ git config user.email
arssub726@gmail.com

```

Explanation: "Git config" is used to authenticate user details immediately after installation of git on new system

```

suhai@DESKTOP-C69A5LF MINGW64 ~/Project2 (main)
$ git config user.name
suhai

```

Git tag

```

suhai@DESKTOP-C69A5LF MINGW64 ~/Project2 (main)
$ git tag 2.33.0

```

Explanation: "Git tag" command is used to identify a specific commit.

