

```
himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance (main)
$ git config --list --show-origin
file:C:/Program Files/Git/etc/gitconfig diff.astextplain.textconv=astextplain
file:C:/Program Files/Git/etc/gitconfig filter.lfs.clean=git-lfs clean -- %f
file:C:/Program Files/Git/etc/gitconfig filter.lfs.smudge=git-lfs smudge -- %f
file:C:/Program Files/Git/etc/gitconfig filter.lfs.process=git-lfs filter-process
file:C:/Program Files/Git/etc/gitconfig filter.lfs.required=true
file:C:/Program Files/Git/etc/gitconfig http.sslbackend=openssl
file:C:/Program Files/Git/etc/gitconfig http.sslcainfo=C:/Program Files/Git/mingw64/ssl/certs/ca-bundle.crt
file:C:/Program Files/Git/etc/gitconfig core.autocrlf=true
file:C:/Program Files/Git/etc/gitconfig core.fscache=true
file:C:/Program Files/Git/etc/gitconfig core.symlinks=false
file:C:/Program Files/Git/etc/gitconfig pull.rebase=false
file:C:/Program Files/Git/etc/gitconfig credential.helper=manager-core
file:C:/Program Files/Git/etc/gitconfig credential.https://dev.azure.com.usehttppath=true
file:C:/Program Files/Git/etc/gitconfig init.defaultbranch=master
file:C:/Users/himaj/.gitconfig user.name=harsha-2004
file:C:/Users/himaj/.gitconfig user.email=ch.en.u4aie21104@ch.students.amrita.edu
file:C:/Users/himaj/.gitconfig filter.lfs.clean=git-lfs clean -- %f
file:C:/Users/himaj/.gitconfig filter.lfs.smudge=git-lfs smudge -- %f
file:C:/Users/himaj/.gitconfig filter.lfs.process=git-lfs filter-process
file:C:/Users/himaj/.gitconfig filter.lfs.required=true
file:.git/config core.repositoryformatversion=0
file:.git/config core.filemode=false
file:.git/config core.bare=false
file:.git/config core.logallrefupdates=true
file:.git/config core.symlinks=false
file:.git/config core.ignorecase=true
file:.git/config remote.origin.url=https://github.com/harsha-2004/cognizance.git
file:.git/config remote.origin.fetch=+refs/heads/*:refs/remotes/origin/*
file:.git/config branch.main.remote=origin
file:.git/config branch.main.merge=refs/heads/main

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance (main)
$ |
```

Git config --list --show-origin

```
himaj@LAPTOP-P2545V00 MINGW64 ~  
$ git clone https://github.com/harsha-2004/cognizance.git  
Cloning into 'cognizance'...  
warning: You appear to have cloned an empty repository.
```

Cloning the repository(cognizance) into a new directory

```
himaj@LAPTOP-P2545V00 MINGW64 ~  
$ cd cognizance
```

```
himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance (main)  
$ mkdir Task-1  
bash: mkdir: command not found
```

Creating a folder named Task-1

```
himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance (main)  
$ mkdir Task-1
```

```
himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance (main)  
$ cd Task-1
```

```
himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (main)  
$ touch title.txt
```

```
himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (main)  
$ notepad title.txt
```

Keeping the current working file (title.txt) Into the stage

```
himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (main)  
$ git add .
```

```
himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (main)  
$ git status  
On branch main  
  
No commits yet
```

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

Commit staged changes (written message or text) to local branch

```
himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (main)  
$ git commit -m "Basic operations in git bash"  
[main (root-commit) a040f3f] Basic operations in git bash  
1 file changed, 1 insertion(+)  
create mode 100644 Task-1/title.txt
```

```
himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (main)  
$ git branch sub_topics
```

```
himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (main)  
$ git checkout sub_topics  
Switched to branch 'sub_topics'
```

Switching or replacing current working to "sub_topics" branch

```
himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (sub_topics)  
$ |
```

```
himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (sub_topics)
$ touch sub_title.txt
```

```
himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (sub_topics)
$ notepad sub_title.txt
```

```
himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (sub_topics)
$ git add .
```

```
himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (sub_topics)
$ git add .
```

```
himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (sub_topics)
$ git commit -m "1.git add
```

```
2.git checkout
3.git checkout -b
4.git clone
5.git commit
6.git commit -a
7.git fetch
8.git merge
9.git pull
10.git push
11.git reset
12.git rebase
"
```

```
[sub_topics 8145f78] 1.git add 2.git checkout 3.git checkout -b 4.git clone 5.git commit 6.git commit -
a 7.git fetch 8.git merge 9.git pull 10.git push 11.git reset 12.git rebase
1 file changed, 12 insertions(+)
create mode 100644 Task-1/sub_title.txt
```

```
himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (sub_topics)
$ git status
On branch sub_topics
nothing to commit, working tree clean
```

```
himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (sub_topics)
$ git log
commit 8145f78d0fae87e3278317ae991b7d66138838c4 (HEAD -> sub_topics)
Author: harsha-2004 <ch.en.u4aie21104@ch.students.amrita.edu>
Date: Tue Feb 15 12:09:23 2022 +0530
```

```
1.git add
2.git checkout
3.git checkout -b
4.git clone
5.git commit
6.git commit -a
7.git fetch
8.git merge
9.git pull
10.git push
11.git reset
12.git rebase
```

```
commit a040f3f37639a056ae790260c5db605154262c45 (main)
```



```
MINGW64:/c:/Users/himaj/cognizance/Task-1
Author: harsha-2004 <ch.en.u4aie21104@ch.students.amrita.edu>
Date: Tue Feb 15 11:53:55 2022 +0530

Basic operations in git bash

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (sub_topics)
$ git merge AC

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (sub_topics)
$ git checkout main
Switched to branch 'main'
Your branch is based on 'origin/main', but the upstream is gone.
(use "git branch --unset-upstream" to fixup)

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (main)
$ git branch --unset-upstream

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (main)
$ git merge 8145f78d0fae87e3278317ae991b7d66138838c4
Updating a040f3f..8145f78
Fast-forward
 Task-1/sub_title.txt | 12 ++++++++
 1 file changed, 12 insertions(+)
 create mode 100644 Task-1/sub_title.txt

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (main)
$ git add .

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (main)
$ git status
On branch main
nothing to commit, working tree clean

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (main)
$ git merge 8145f78d0fae87e3278317ae991b7d66138838c4
Already up to date.

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (main)
$ git status
On branch main
nothing to commit, working tree clean

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (main)
$ git log
commit 8145f78d0fae87e3278317ae991b7d66138838c4 (HEAD -> main, sub_topics)
Author: harsha-2004 <ch.en.u4aie21104@ch.students.amrita.edu>
Date: Tue Feb 15 12:09:23 2022 +0530

1.git add
2.git checkout
3.git checkout -b
4.git clone
5.git commit
6.git commit -a
7.git fetch
8.git merge
9.git pull
```

Merges files from a given branch (sub_topics) into the current branch (main).

```
MINGW64:/c/Users/himaj/cognizance/Task-1
10.git push
11.git reset
12.git rebase

commit a040f3f37639a056ae790260c5db605154262c45
Author: harsha-2004 <ch.en.u4aie21104@ch.students.amrita.edu>
Date: Tue Feb 15 11:53:55 2022 +0530

Basic operations in git bash

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (main)
$ git checkout -b simple
Switched to a new branch 'simple'

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (simple)
$ touch sam.txt

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (simple)
$ notepad sam.txt

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (simple)
$ git commit -a
On branch simple
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        sam.txt

nothing added to commit but untracked files present (use "git add" to track)

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (simple)
$ git add .

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (simple)
$ git commit -a
Aborting commit due to empty commit message.

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (simple)
$ git status
On branch simple
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   sam.txt
```

Creates a new local branch (simple) from the current branch's tip (main).

```
MINGW64:/c/Users/himaj/cognizance/Task-1

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (sub_topics)
$ git status
On branch sub_topics
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   title.txt

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (sub_topics)
$ git reset
Unstaged changes after reset:
M       Task-1/title.txt

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (sub_topics)
$ git status
On branch sub_topics
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:   title.txt

no changes added to commit (use "git add" and/or "git commit -a")

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance/Task-1 (sub_topics)
$ |
```

reset

Makes the current branch(sub_topics) point to some specific revision


```
MINGW64:/c/Users/himaj/cognizance
himaj@LAPTOP-P2545V00 MINGW64 ~
$ cd cognizance

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance (main)
$ giti log
bash: giti: command not found

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance (main)
$ git log
commit 8145f78d0fae87e3278317ae991b7d66138838c4 (HEAD -> main, sub_topics)
Author: harsha-2004 <ch.en.u4aie21104@ch.students.amrita.edu>
Date: Tue Feb 15 12:09:23 2022 +0530

    1.git add
    2.git checkout
    3.git checkout -b
    4.git clone
    5.git commit
    6.git commit -a
    7.git fetch
    8.git merge
    9.git pull
   10.git push
   11.git reset
   12.git rebase

commit a040f3f37639a056ae790260c5db605154262c45
Author: harsha-2004 <ch.en.u4aie21104@ch.students.amrita.edu>
Date: Tue Feb 15 11:53:55 2022 +0530

    Basic operations in git bash

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance (main)
$ git fetch

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance (main)
$ git fetch
remote: Enumerating objects: 7, done.
remote: Counting objects: 100% (7/7), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 4 (delta 1), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (4/4), 723 bytes | 14.00 KiB/s, done.
From https://github.com/harsha-2004/cognizance
    08fb02a..7142b8d  main      -> origin/main

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance (main)
$
```

Downloads changes from a remote repository into the local clone.

```
MINGW64:/c/Users/himaj/cognizance
08fb02a..7142b8d main -> origin/main

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance (main)
$ git rebase sub_topic
fatal: invalid upstream 'sub_topic'

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance (main)
$ git checkout sub_topic
error: pathspec 'sub_topic' did not match any file(s) known to git

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance (main)
$ git checkout sub_topics
Switched to branch 'sub_topics'
M       Task-1/title.txt

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance (sub_topics)
$ git rebase sub_topics
error: cannot rebase: Your index contains uncommitted changes.
error: Please commit or stash them.

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance (sub_topics)
$ git status
On branch sub_topics
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   Task-1/title.txt

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance (sub_topics)
$ git commit -m "1.git add"
2.git checkout
3.git checkout -b
4.git clone
5.git commit
6.git commit -a
7.git fetch
8.git merge
9.git pull
10.git push
11.git reset
12.git rebase
"
[sub_topics 9fcba4b] 1.git add 2.git checkout 3.git checkout -b 4.git clone 5.git commit 6.git commit -
a 7.git fetch 8.git merge 9.git pull 10.git push 11.git reset 12.git rebase
1 file changed, 2 insertions(+), 1 deletion(-)

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance (sub_topics)
$ git rebase sub_topics
Current branch sub_topics is up to date.

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance (sub_topics)
$ git status
On branch sub_topics
nothing to commit, working tree clean

himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance (sub_topics)
$
```

Rebase

Integrates changes from one branch into another. It is an alternative to the better known “merge” command.


```
himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance (sub_topics)
$ git checkout main
Switched to branch 'main'
Your branch is behind 'origin/main' by 3 commits, and can be fast-forwarded.
(use "git pull" to update your local branch)
```

```
himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance (main)
$ git pull
Updating 8145f78..7142b8d
Fast-forward
 Task-1/sub_title.txt | 2 ++
 Task-1/title.txt     | 3 ++-
 2 files changed, 4 insertions(+), 1 deletion(-)
```

```
himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance (main)
$ git push -u origin main
Everything up-to-date
branch 'main' set up to track 'origin/main'.
```

```
himaj@LAPTOP-P2545V00 MINGW64 ~/cognizance (main)
$
```

Fetches remote changes on the current branch into the local clone, and merges them into the current working files.