GIT COGNIZANCE TASK-1

Initializing local repository


```
MINGW64:/c/Users/skand/Cognizance                                    —    □    ✕

skand@DESKTOP-KHA2034 MINGW64 ~
$ git init Cognizance
Initialized empty Git repository in C:/Users/skand/Cognizance/.git/

skand@DESKTOP-KHA2034 MINGW64 ~
$ cd Cognizance

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$
```

Creating Task-1 folder

```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ mkdir Task-1

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ ls
Task-1/
```

Connecting local repository with remote repository (GitHub)

```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ touch readme.md

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ gedit readme.md
bash: gedit: command not found

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ vim

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ vim readme.md

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ ls
Task-1/  readme.md
```

```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git commit -m 'ADDED README'
[master (root-commit) 5e8e675] ADDED README
 1 file changed, 3 insertions(+)
 create mode 100644 readme.md
```

```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git remote add origin https://github.com/skandhavs/Cognizance.git
```

```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git push -u origin master
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Writing objects: 100% (3/3), 248 bytes | 248.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/skandhavs/Cognizance.git
 * [new branch]      master -> master
branch 'master' set up to track 'origin/master'.
```

ADD Operation

```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ touch Test.txt

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git add Test.txt

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ vim Test
```

```
This is a test in master branch
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Test[+] [unix] (15:27 15/02/2022)                              1,32 All
```

CHECKOUT-B Operation

```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git checkout -b test_branch
Switched to a new branch 'test_branch'
```

```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (test_branch)
$ ls
Task-1/  Test  readme.md

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (test_branch)
$ vim Test
```

```
This is a test in master branch
This is a test in test_branch
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Test [unix] (15:32 15/02/2022)
```

CHECKOUT OPERATION

```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (test_branch)
$ git checkout master
Switched to branch 'master'
A       Test.txt
Your branch is up to date with 'origin/master'.
```

```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ vim Test
```
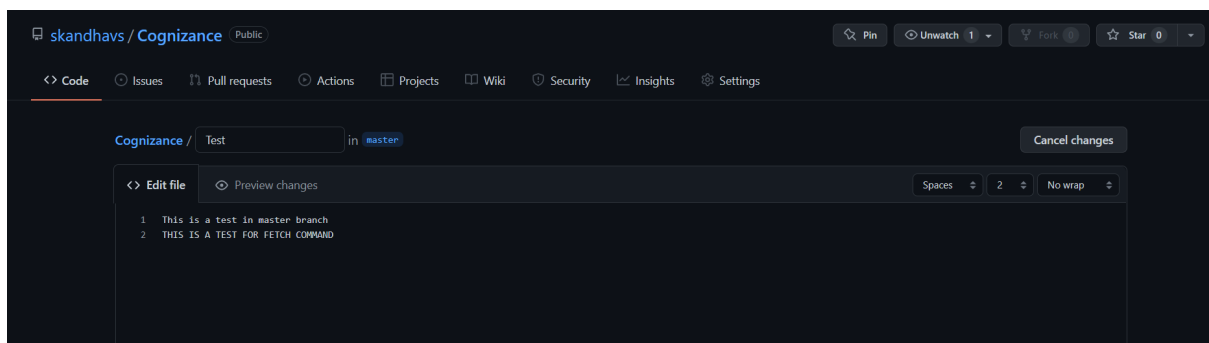
```
This is a test in master branch
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```

Git Commit operation

```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git commit
[master 5ffa8bf] First Commit in Master branch
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 Test.txt
```

Git Commit -a Operation

```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git commit -a
[master 37febd7] Added new file Test2 for commit -a command
 1 file changed, 1 insertion(+)
 create mode 100644 Test2
```

Git fetch operation


```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git fetch
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), 738 bytes | 56.00 KiB/s, done.
From https://github.com/skandhavs/Cognizance
   1a050bf..a5c5a20  master     -> origin/master
```

```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git status
On branch master
Your branch is behind 'origin/master' by 1 commit, and can be fast-forwarded.
  (use "git pull" to update your local branch)

nothing to commit, working tree clean

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git checkout origin/master
Note: switching to 'origin/master'.

You are in 'detached HEAD' state. You can look around, make experimental
changes and commit them, and you can discard any commits you make in this
state without impacting any branches by switching back to a branch.

If you want to create a new branch to retain commits you create, you may
do so (now or later) by using -c with the switch command. Example:

  git switch -c <new-branch-name>

Or undo this operation with:

  git switch -

Turn off this advice by setting config variable advice.detachedHead to false

HEAD is now at a5c5a20 test for fetch command

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance ((a5c5a20...))
$ ls
Task-1/  Test  Test2  readme.md

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance ((a5c5a20...))
$ vim Test
```

MINGW64:/c/Users/skand/Cognizance

```
This is a test in master branch
THIS IS A TEST FOR FETCH COMMAND
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Test [dos] (16:59 15/02/2022)
```

Git Merge operation

```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git checkout test_branch
Switched to branch 'test_branch'
Your branch is up to date with 'origin/test_branch'.

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (test_branch)
$ ls
Task-1/  Test  readme.md

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (test_branch)
$ touch merge_test
```
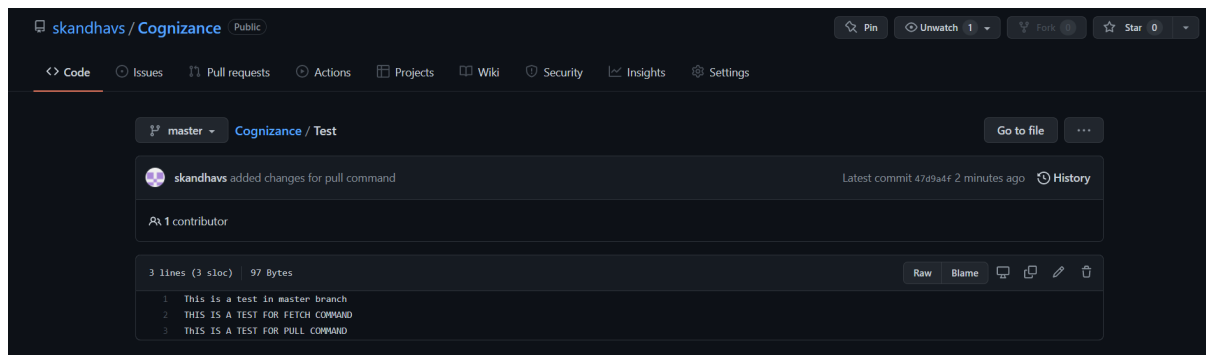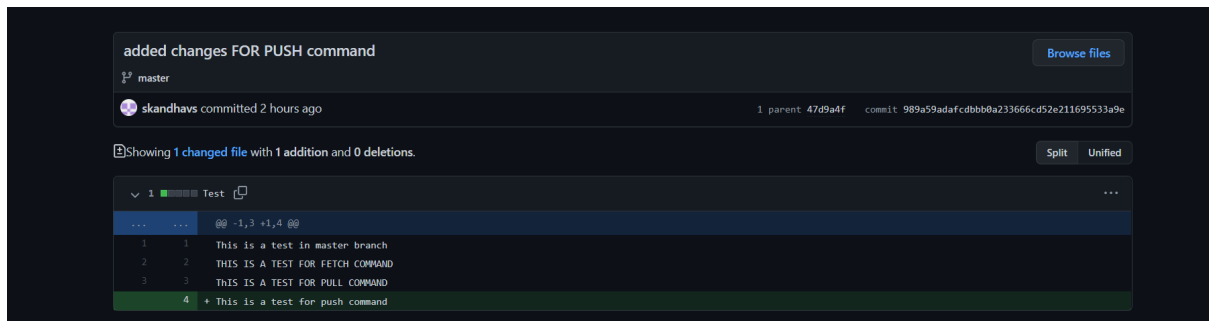
```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (test_branch)
$ vim merge_test

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (test_branch)
$ ls
Task-1/  Test  merge_test  readme.md
```

```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git merge test_branch
Merge made by the 'ort' strategy.
```

```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ ls
Task-1/  Test  Test2  merge_test  readme.md
```

Git Pull Operation

```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git pull https://github.com/skandhavs/Cognizance.git
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), 788 bytes | 71.00 KiB/s, done.
From https://github.com/skandhavs/Cognizance
 * branch            HEAD        -> FETCH_HEAD
Updating a3065d2..47d9a4f
Fast-forward
 Test | 1 +
 1 file changed, 1 insertion(+)

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ vim Test
```

```
This is a test in master branch
THIS IS A TEST FOR FETCH COMMAND
ThIS IS A TEST FOR PULL COMMAND
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Test [dos] (17:50 15/02/2022)
```

Git Push Operation

```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ vim Test
```

```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git add .

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git commit
[master 989a59a] added changes FOR PUSH command
 1 file changed, 1 insertion(+)

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git push
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 8 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 399 bytes | 399.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/skandhavs/Cognizance.git
   47d9a4f..989a59a  master -> master
```

GIT RESET OPERATION

```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ vim Test

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git status
On branch master
Your branch is up to date with 'origin/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:   Test

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

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git add .

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git status
On branch master
Your branch is up to date with 'origin/master'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   Test


skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git reset
Unstaged changes after reset:
M       Test

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git status
On branch master
Your branch is up to date with 'origin/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:   Test

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

GIT RESET (HARD) Operation

```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git add .

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git commit
[master 0f70936] added for hard reset command
 1 file changed, 1 insertion(+)
```

```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git reset --hard 989a59adafcdbbb0a233666cd52e211695533a9e
HEAD is now at 989a59a added changes FOR PUSH command
```

GIT RESET(SOFT) Operation

```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git log
commit 989a59adafcdbbb0a233666cd52e211695533a9e (HEAD -> master, origin/master)
Author: Skandha <skandhavs@gmail.com>
Date:   Tue Feb 15 17:54:17 2022 +0530

    added changes FOR PUSH command
```

```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ vim Test
```

```
This is a test in master branch
THIS IS A TEST FOR FETCH COMMAND
ThIS IS A TEST FOR PULL COMMAND
This is a test for push command
This is a test for soft reset
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Test[+] [dos] (18:43 15/02/2022)
```

```
$ git status
On branch master
Your branch is up to date with 'origin/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:   Test

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

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git add .

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git commit
[master c60cd45] this is for soft reset
 1 file changed, 1 insertion(+)

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git log -n 2
commit c60cd452e01c277e804d8a1eed2020801c41d8fb (HEAD -> master)
Author: Skandha <skandhavs@gmail.com>
Date:   Tue Feb 15 19:03:51 2022 +0530

    this is for soft reset

commit 989a59adafcdbbb0a233666cd52e211695533a9e (origin/master)
Author: Skandha <skandhavs@gmail.com>
Date:   Tue Feb 15 17:54:17 2022 +0530

    added changes FOR PUSH command

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git reset --soft 989a59adafcdbbb0a233666cd52e211695533a9e

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git status
On branch master
Your branch is up to date with 'origin/master'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   Test


skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ vim Test

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git log -n 1
commit 989a59adafcdbbb0a233666cd52e211695533a9e (HEAD -> master, origin/master)
Author: Skandha <skandhavs@gmail.com>
Date:   Tue Feb 15 17:54:17 2022 +0530

    added changes FOR PUSH command
```

GIT REBASE Operation


```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git checkout -b test_branch2
Switched to a new branch 'test_branch2'

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (test_branch2)
$ touch rebasetest

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (test_branch2)
$ git status
On branch test_branch2
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   Test

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


skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (test_branch2)
$ git add .

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (test_branch2)
$ git commit
[test_branch2 b08780e] this is a test for rebase command
 2 files changed, 1 insertion(+)
 create mode 100644 rebasetest
```

```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (test_branch2)
$ git checkout master
Switched to branch 'master'
Your branch is up to date with 'origin/master'.

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git log -n 1
commit 989a59adafcdbbb0a233666cd52e211695533a9e (HEAD -> master, origin/master)
Author: Skandha <skandhavs@gmail.com>
Date:   Tue Feb 15 17:54:17 2022 +0530

    added changes FOR PUSH command

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git rebase test_branch2
Successfully rebased and updated refs/heads/master.

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git log -n 1
commit b08780e36c2ee64fe6cdc6cba9f38faa89afeb6e (HEAD -> master, test_branch2)
Author: Skandha <skandhavs@gmail.com>
Date:   Tue Feb 15 19:14:43 2022 +0530

    this is a test for rebase command
```

GIT FORK Operation

Git config –list –show-origin

Git Clone Operation (CLONED IN THE SAME REPOSITORY)

```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ git clone https://github.com/skandhavs/Cognizance.git
Cloning into 'Cognizance'...
remote: Enumerating objects: 31, done.
remote: Counting objects: 100% (31/31), done.
remote: Compressing objects: 100% (24/24), done.
remote: Total 31 (delta 4), reused 25 (delta 1), pack-reused 0
Receiving objects: 100% (31/31), done.
Resolving deltas: 100% (4/4), done.
```

```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ ls
Cognizance/  Task-1/  Test  Test2  merge_test  readme.md  rebasetest
```

```
skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance (master)
$ cd cognizance

skand@DESKTOP-KHA2034 MINGW64 ~/Cognizance/cognizance (master)
$ ls
Test  Test2  merge_test  readme.md
```