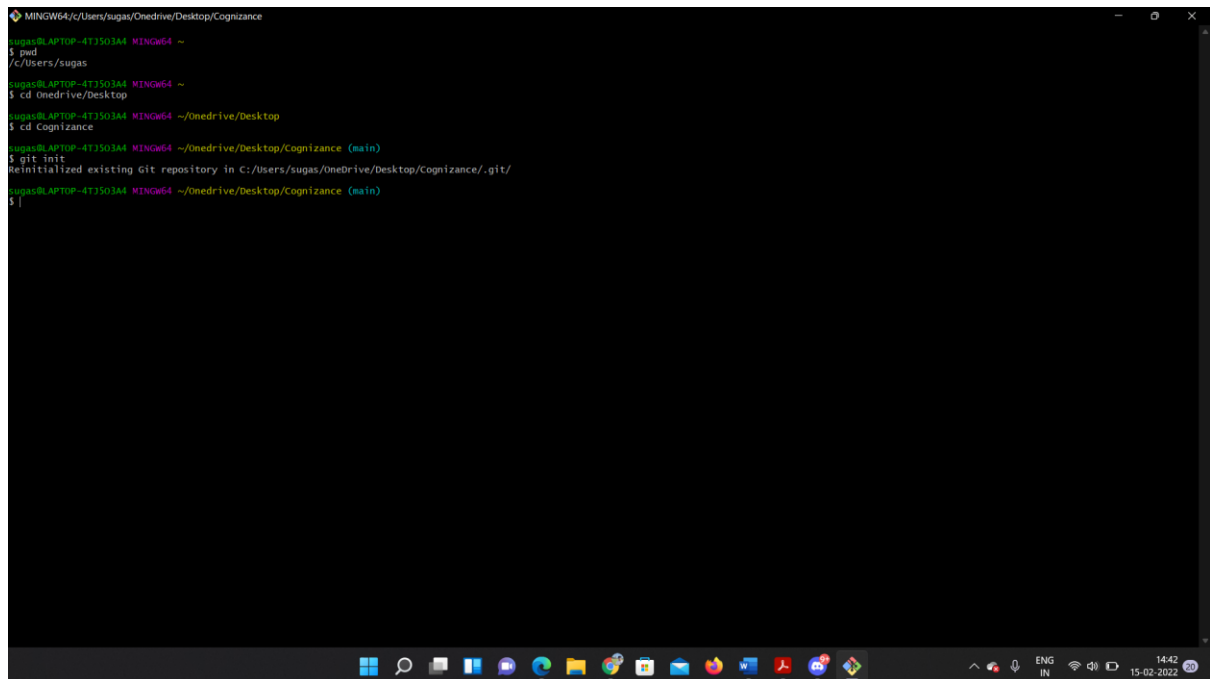


# COGNIZANCE

## GIT & GITHUB OPERATIONS

### To create a Github Local Repo:



```
MINGW64/c/Users/sugas/OneDrive/Desktop/Cognizance
sugas@LAPTOP-4TJ503A4 MINGW64 ~
$ pwd
/c/Users/sugas
sugas@LAPTOP-4TJ503A4 MINGW64 ~
$ cd OneDrive/Desktop
sugas@LAPTOP-4TJ503A4 MINGW64 ~/OneDrive/Desktop
$ cd Cognizance
sugas@LAPTOP-4TJ503A4 MINGW64 ~/OneDrive/Desktop/Cognizance (main)
$ git init
Reinitialized existing Git repository in C:/Users/sugas/OneDrive/Desktop/Cognizance/.git/
sugas@LAPTOP-4TJ503A4 MINGW64 ~/OneDrive/Desktop/Cognizance (main)
$
```

## Git add:

It puts our file to stage.

For creating a file use touch<filename> cmd

```
MINGW64/c/Users/sugas/OneDrive/Desktop/Cognizance
sugas@LAPTOP-4TJ5O3M4 MINGW64 ~
$ pwd
/c/Users/sugas
sugas@LAPTOP-4TJ5O3M4 MINGW64 ~
$ cd OneDrive/Desktop
sugas@LAPTOP-4TJ5O3M4 MINGW64 ~/OneDrive/Desktop
$ cd Cognizance
sugas@LAPTOP-4TJ5O3M4 MINGW64 ~/OneDrive/Desktop/Cognizance (main)
$ git init
Reinitialized existing Git repository in C:/Users/sugas/OneDrive/Desktop/Cognizance/.git/
sugas@LAPTOP-4TJ5O3M4 MINGW64 ~/OneDrive/Desktop/Cognizance (main)
$ touch filenew.txt
sugas@LAPTOP-4TJ5O3M4 MINGW64 ~/OneDrive/Desktop/Cognizance (main)
$ git add
warning: LF will be replaced by CRLF in README.md.
the file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in Task1.txt.
the file will have its original line endings in your working directory
sugas@LAPTOP-4TJ5O3M4 MINGW64 ~/OneDrive/Desktop/Cognizance (main)
$ git commit -a
hint: Waiting for your editor to close the file... error: There was a problem with the editor 'vi'.
Please supply the message using either -m or -F option.
sugas@LAPTOP-4TJ5O3M4 MINGW64 ~/OneDrive/Desktop/Cognizance (main)
$ git commit -m "this is a file"
[main (root-commit) db1dd96] this is a file
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 filenew.txt
sugas@LAPTOP-4TJ5O3M4 MINGW64 ~/OneDrive/Desktop/Cognizance (main)
$ git log
commit db1dd9633db8d052c8b45bcfd9f0d38a19d41bb6 (HEAD -> main)
Author: sugash <sugash.sar@gmail.com>
Date: Tue Feb 15 14:48:26 2022 +0530

    this is a file
sugas@LAPTOP-4TJ5O3M4 MINGW64 ~/OneDrive/Desktop/Cognizance (main)
$
```

## Git remote:

Git remote cmd is responsible for syncing changes.

```
MINGW64/c/Users/sugas/OneDrive/Desktop/Cognizance
sugas@LAPTOP-4TJ5O3M4 MINGW64 ~
$ pwd
/c/Users/sugas
sugas@LAPTOP-4TJ5O3M4 MINGW64 ~
$ cd OneDrive/Desktop
sugas@LAPTOP-4TJ5O3M4 MINGW64 ~/OneDrive/Desktop
$ cd Cognizance
sugas@LAPTOP-4TJ5O3M4 MINGW64 ~/OneDrive/Desktop/Cognizance (main)
$ git init
Reinitialized existing Git repository in C:/Users/sugas/OneDrive/Desktop/Cognizance/.git/
sugas@LAPTOP-4TJ5O3M4 MINGW64 ~/OneDrive/Desktop/Cognizance (main)
$ touch filenew.txt
sugas@LAPTOP-4TJ5O3M4 MINGW64 ~/OneDrive/Desktop/Cognizance (main)
$ git add
warning: LF will be replaced by CRLF in README.md.
the file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in Task1.txt.
the file will have its original line endings in your working directory
sugas@LAPTOP-4TJ5O3M4 MINGW64 ~/OneDrive/Desktop/Cognizance (main)
$ git commit -a
hint: Waiting for your editor to close the file... error: There was a problem with the editor 'vi'.
Please supply the message using either -m or -F option.
sugas@LAPTOP-4TJ5O3M4 MINGW64 ~/OneDrive/Desktop/Cognizance (main)
$ git commit -m "this is a file"
[main (root-commit) db1dd96] this is a file
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 filenew.txt
sugas@LAPTOP-4TJ5O3M4 MINGW64 ~/OneDrive/Desktop/Cognizance (main)
$ git log
commit db1dd9633db8d052c8b45bcfd9f0d38a19d41bb6 (HEAD -> main)
Author: sugash <sugash.sar@gmail.com>
Date: Tue Feb 15 14:48:26 2022 +0530

    this is a file
sugas@LAPTOP-4TJ5O3M4 MINGW64 ~/OneDrive/Desktop/Cognizance (main)
$ git remote add origin https://github.com/sugashs/Cognizance
error: remote origin already exists.
sugas@LAPTOP-4TJ5O3M4 MINGW64 ~/OneDrive/Desktop/Cognizance (main)
$
```

## Git branch:

It is like a snapshot for your changes. Instead of copying from 1 dir to other.

```
MINGW64/C:/Users/sugas/OneDrive/Desktop/Cognizance
sugas@LAPTOP-4TJ5O3A4 MINGW64 ~
$ pwd
/c:/Users/sugas
sugas@LAPTOP-4TJ5O3A4 MINGW64 ~
$ cd OneDrive/Desktop
sugas@LAPTOP-4TJ5O3A4 MINGW64 ~/OneDrive/Desktop
$ cd Cognizance
sugas@LAPTOP-4TJ5O3A4 MINGW64 ~/OneDrive/Desktop/Cognizance (main)
$ git init
Reinitialized existing Git repository in C:/Users/sugas/OneDrive/Desktop/Cognizance/.git/
sugas@LAPTOP-4TJ5O3A4 MINGW64 ~/OneDrive/Desktop/Cognizance (main)
$ touch filenew.txt
sugas@LAPTOP-4TJ5O3A4 MINGW64 ~/OneDrive/Desktop/Cognizance (main)
$ git add
warning: LF will be replaced by CRLF in README.md.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in Task1.txt.
The file will have its original line endings in your working directory
sugas@LAPTOP-4TJ5O3A4 MINGW64 ~/OneDrive/Desktop/Cognizance (main)
$ git commit -m
hint: Waiting for your editor to close the file... error: There was a problem with the editor 'vi'.
Please supply the message using either -m or -F option.
sugas@LAPTOP-4TJ5O3A4 MINGW64 ~/OneDrive/Desktop/Cognizance (main)
$ git commit -m 'this is a file'
[master root-commit] db1d496 this is a file
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 filenew.txt
sugas@LAPTOP-4TJ5O3A4 MINGW64 ~/OneDrive/Desktop/Cognizance (main)
$ git log
commit db1d49633db8d052c8b45b4f9f0d38a19d41bb6 (HEAD -> main)
Author: sugash <sugash.sar@gmail.com>
Date: Tue Feb 15 14:48:26 2022 +0530

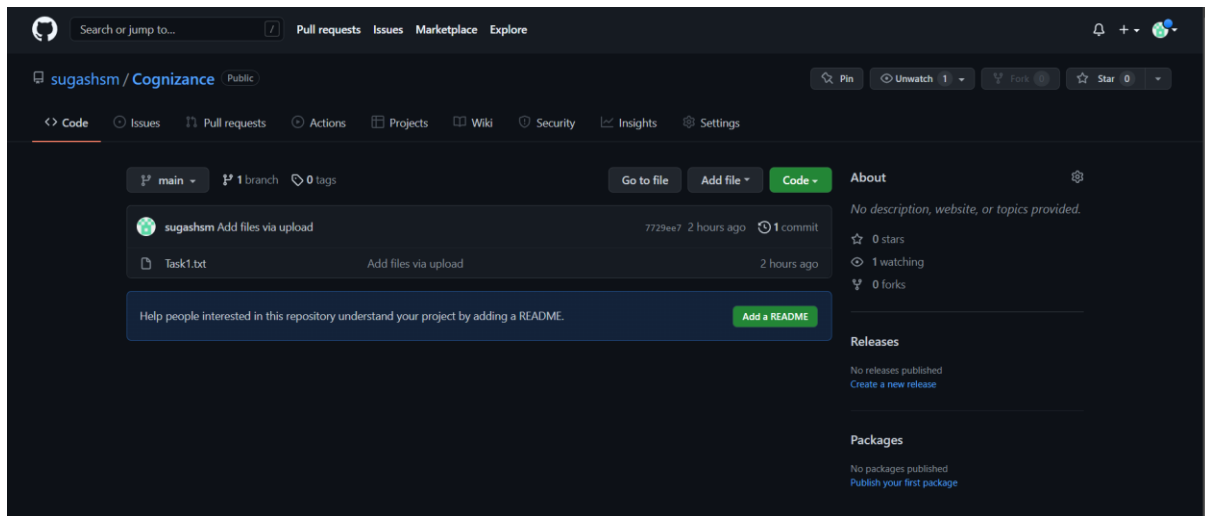
    this is a file
sugas@LAPTOP-4TJ5O3A4 MINGW64 ~/OneDrive/Desktop/Cognizance (main)
$ git remote add origin https://github.com/sugashs/Cognizance
error: remote origin already exists.
sugas@LAPTOP-4TJ5O3A4 MINGW64 ~/OneDrive/Desktop/Cognizance (main)
$ git branch -M main
sugas@LAPTOP-4TJ5O3A4 MINGW64 ~/OneDrive/Desktop/Cognizance (main)
$ |
```

## Git push:

Upload all changes from local repositories to their respective remote repository.

```
$ git push -u origin main
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Writing objects: 100% (3/3), 224 bytes | 224.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/Sanjay-BlaCkn/Cognizance.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.
```

## Remote repository:



## Git clone:

It helps to bring or copy an existing repository to a new one.

```
sugas@LAPTOP-4TJ503A4 MINGW64 ~/Onedrive/Desktop/Cognizance (main)
$ git clone https://github.com/sugashsm/Cognizance
Cloning into 'Cognizance'...
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.
```

## Git merge:

Merge files from given branch to current one.

```
$ git merge
Updating db5e181..6913f8e
Fast-forward
 README.md | 1 +
 1 file changed, 1 insertion(+)
```

## Git checkout:

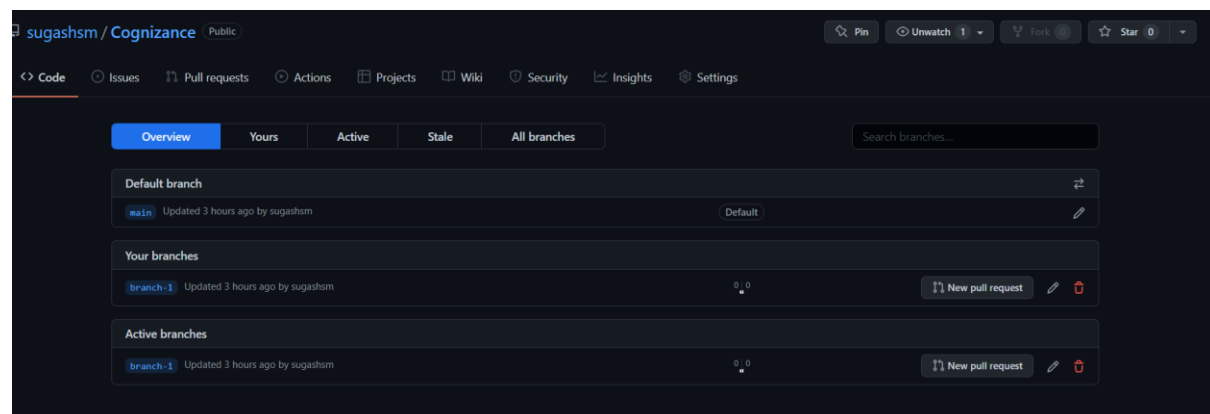
This cmd helps you to replace all files with remote repo from a branch.

```
sugas@LAPTOP-4TJ503A4 MINGW64 ~/Onedrive/Desktop/Cognizance (main)
$ git checkout
A      README.md
A      Task1.txt
A      github/task1
A      task1
```

## Git checkout -b:

It creates a new branch from current's tip.

```
sugas@LAPTOP-4TJ503A4 MINGW64 ~/Onedrive/Desktop/Cognizance (main)
$ git checkout -b branch-1
Switched to a new branch 'branch-1'
```



## Git fetch:

Downloads changes from remote repo to local repo.

```
sugas@LAPTOP-4TJ503A4 MINGW64 ~/Onedrive/Desktop/Cognizance (branch-1)
$ git fetch
From https://github.com/sugashsm/Cognizance
* [new branch]      branch-1 -> origin/branch-1
```

## Git reset:

Makes the current branch point to some branch.

```
sugas@LAPTOP-4TJ503A4 MINGW64 ~/Onedrive/Desktop/Cognizance (main)
$ git reset

sugas@LAPTOP-4TJ503A4 MINGW64 ~/Onedrive/Desktop/Cognizance (main)
$ git log --online
fatal: unrecognized argument: --online

sugas@LAPTOP-4TJ503A4 MINGW64 ~/Onedrive/Desktop/Cognizance (main)
$ git log --oneline
db1dd96 (HEAD -> main, branch-1) this is a file

sugas@LAPTOP-4TJ503A4 MINGW64 ~/Onedrive/Desktop/Cognizance (main)
$ |
```

## Git rebase:

It is a alternative to merge cmd.

```
sugas@LAPTOP-4TJ503A4 MINGW64 ~/Onedrive/Desktop/Cognizance (main)
$ git rebase branch-1
Current branch main is up to date.
```

## Git status:

Displays the current state of working directoy.

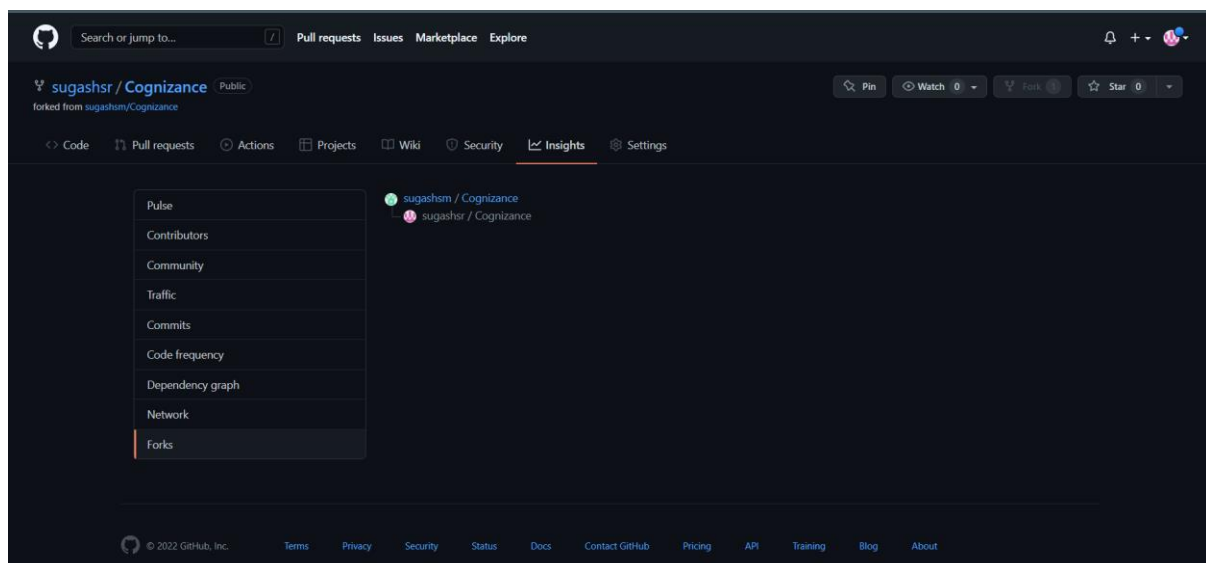
```
sugas@LAPTOP-4TJ503A4 MINGW64 ~/Onedrive/Desktop/Cognizance (main)
$ git status
On branch main
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   Cognizance
    new file:   README.md
    new file:   Task1.txt
    new file:   github/task1
    new file:   task1
```

## Git config --list --show-origin:

```
sugas@LAPTOP-4TJ503A4 MINGW64 ~
$ 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/sugas/.gitconfig user.name=sugash
file:C:/Users/sugas/.gitconfig user.email=sugash.smr@gmail.com
file:C:/Users/sugas/.gitconfig filter.lfs.clean=git-lfs clean -- %f
file:C:/Users/sugas/.gitconfig filter.lfs.smudge=git-lfs smudge -- %f
file:C:/Users/sugas/.gitconfig filter.lfs.process=git-lfs filter-process
file:C:/Users/sugas/.gitconfig filter.lfs.required=true
```

## Git fork:

Fork will create a copy of the repository in your GitHub account so that you can make changes to the project.



Done by,

**Sugash Srimari R**

**[CH.EN.U4CYS21082]**