

# **SD LAB**

**DATE : 21/06/2021**

**Task :Familiarize and illustrate basic Git Commands**

## **Commands Used**

### **1. Git config**

The git config command is a convenience function that is used to set Git configuration values on a global or local project level.

Sample usage: `git config --global user.email "email@example.com"`

### **2. Git init**

The git init command creates a new Git repository. It can be used to convert an existing, unversioned project to a Git repository or initialize a new, empty repository.

Sample usage: `git init`

### **3. Git status**

The git status command displays the state of the working directory and the staging area.

Sample usage: `git status`

### **4. Git add**

The git add command adds a file to the Git staging area. This area contains a list of all the files you have recently changed.

Sample usage: `git add filename.txt`

### **5. Git Commit**

Git, commit is the term used for saving changes. The commit command does not save changes in remote servers, only in the local repository of Git.

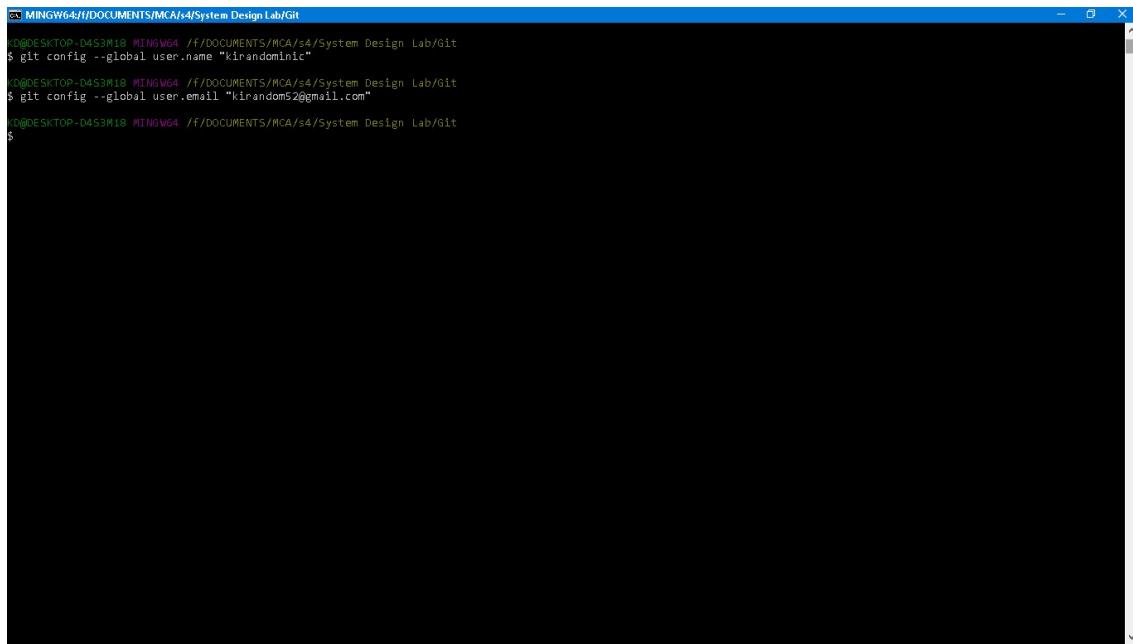
Sample usage: `git commit -m "message for committing"`  
m stands for message.

### **6. Git log**

The git log command displays a record of the commits in a Git repository.

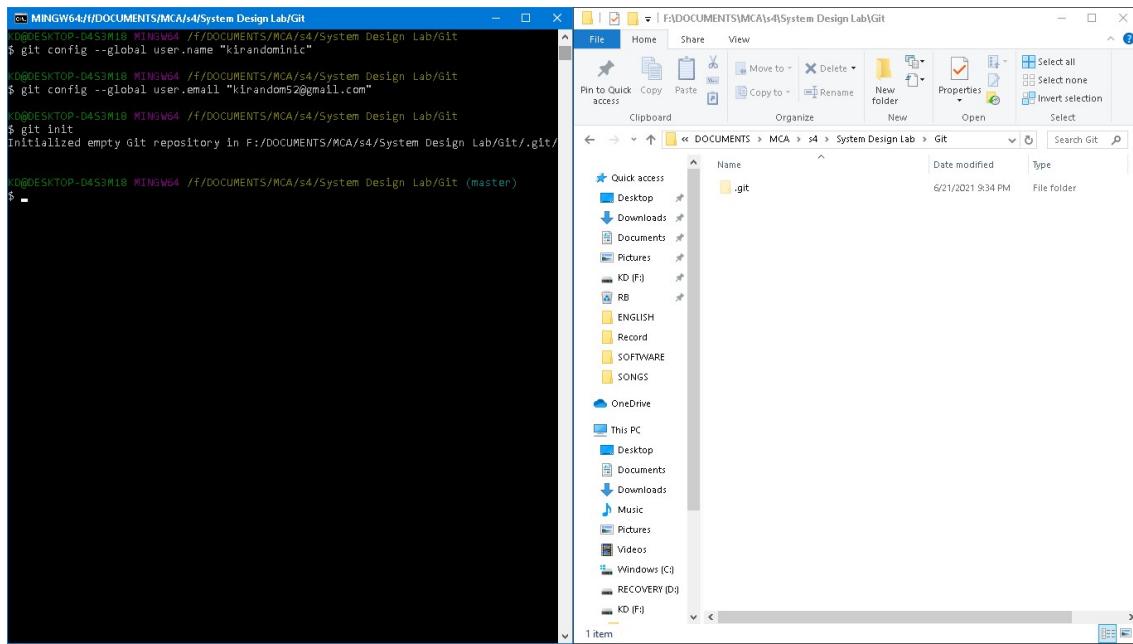
Sample usage: `git log`

## 1.git config



```
cd MINGW64/f/DOCUMENTS/MCA/s4/System Design Lab/Git
$ git config --global user.name "kirandomic"
$ git config --global user.email "kirandom52@gmail.com"
$ git config --global user.name "kirandomic"
$ git config --global user.email "kirandom52@gmail.com"
```

## 2.git init 1



```
cd MINGW64/f/DOCUMENTS/MCA/s4/System Design Lab/Git
$ git config --global user.name "kirandomic"
$ git config --global user.email "kirandom52@gmail.com"
$ git config --global user.name "kirandomic"
$ git config --global user.email "kirandom52@gmail.com"
$ git init
Initialized empty Git repository in F:/DOCUMENTS/MCA/s4/System Design Lab/Git/.git/
$
```

The file explorer window shows the directory structure:

- Documents
- MCA
- s4
- System Design Lab
- Git
- .git

## git init 2

The terminal window shows the command 'git init' being run in a directory named 'System Design Lab'. The file explorer window shows the contents of the repository, which includes a '.git' folder and a 'Readme.txt' file.

```
KD@DESKTOP-D453M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git
$ git config --global user.name "kirandomic"
KD@DESKTOP-D453M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git
$ git config --global user.email "kirandom5@gmail.com"
KD@DESKTOP-D453M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git
$ git init
Initialized empty Git repository in F:/DOCUMENTS/MCA/s4/System Design Lab/Git/.git/
KD@DESKTOP-D453M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (master)
$ git status
On branch master

No commits yet

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

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

KD@DESKTOP-D453M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (master)
$
```

## 3.git add

The terminal window shows the command 'git add Readme.txt' being run, followed by a 'git status' command. The status output indicates that changes have been staged for commit.

```
KD@DESKTOP-D453M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (master)
$ git add Readme.txt
KD@DESKTOP-D453M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (master)
$ git status
On branch master

No commits yet

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

KD@DESKTOP-D453M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (master)
$
```

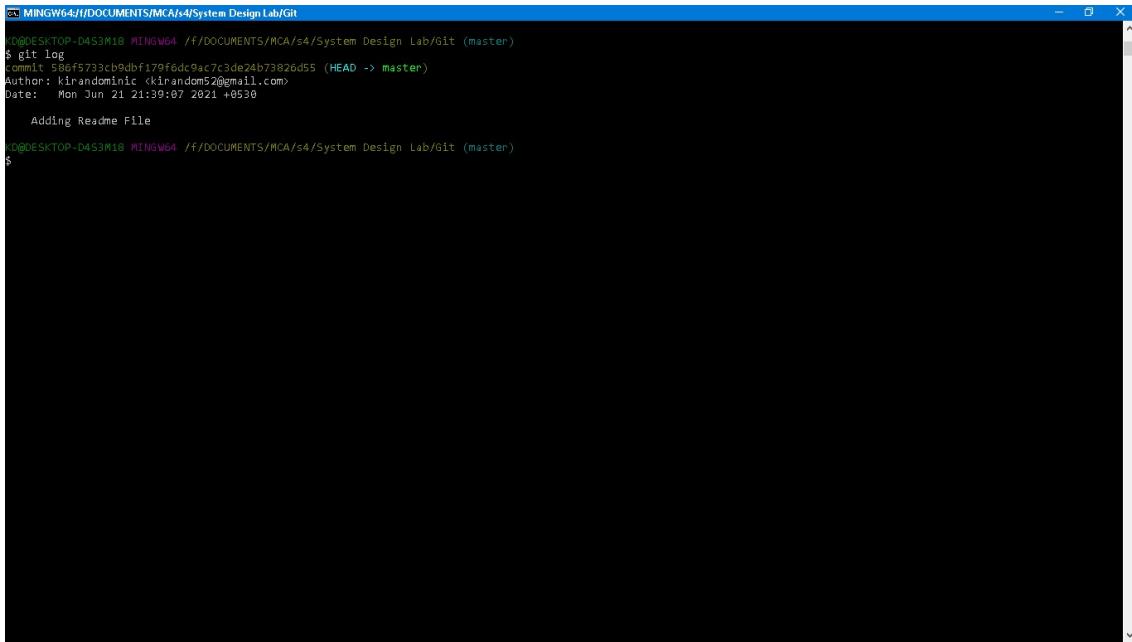
## 4.git commit

```
cl MINGW64:/f/DOCUMENTS/MCA/s4/System Design Lab/Git
KGDESKTOP-D453M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (master)
$ git commit -m "Adding Readme File"
[master (root-commit) 586f573] Adding Readme File
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 Readme.txt
$
```

## 5.git status

```
cl MINGW64:/f/DOCUMENTS/MCA/s4/System Design Lab/Git
KGDESKTOP-D453M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (master)
$ git commit -m "Adding Readme File"
[master (root-commit) 586f573] Adding Readme File
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 Readme.txt
KGDESKTOP-D453M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (master)
$ git status
On branch master
nothing to commit, working tree clean
KGDESKTOP-D453M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (master)
$
```

## 6.git log



```
MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git
$ git log
commit 586f5733cb9d6f179fdc9ac7c3de24b73826d55 (HEAD -> master)
Author: kirandomnic <kirandom52@gmail.com>
Date:   Mon Jun 21 21:39:07 2021 +0530

    Adding Readme File
```

# **SD LAB**

**DATE : 23/06/2021**

## **Task :Familiarize and illustrate basic Git Commands**

### **Commands Used**

#### **1. Git Branch (new Branch)**

Create new branch.

Sample usage: git branch new\_branch\_name

#### **2. Git Branch (list Branches)**

To see local branches

Sample usage: git branch

#### **3. Git Checkout**

The git checkout command lets you navigate between the branches created by git branch .

Sample usage: git checkout branch\_name.

#### **4. Git Merge**

The git merge command lets you take the independent lines of development created by git branch and integrate them into a single branch.

Sample usage: git merge branch\_name

#### **5. Git Branch -d**

Delete the specified branch. This is a “safe” operation in that Git prevents you from deleting the branch if it has unmerged changes.

Sample usage: git branch -d branch\_name

#### **6. Git Branch -D**

Force delete the specified branch, even if it has unmerged changes. This is the command to use if you want to permanently throw away all of the commits associated with a particular line of development.

Sample usage: git branch -D branch\_name

## 1.Branch.

```
cl MINGW64:/f/DOCUMENTS/MCA/s4/System Design Lab/Git
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (master)
$ git branch
* master

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (master)
$ git branch update_1

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (master)
$ git branch update_2

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (master)
$ git branch update_3

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (master)
$ git branch
* master
  update_1
  update_2
  update_3

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (master)
$
```

### 2.1 Using new Branch update\_1 and Adding file to the branch

```
cl MINGW64:/f/DOCUMENTS/MCA/s4/System Design Lab/Git
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (update_1)
$ git status
On branch update_1
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    File_1.txt

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

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (update_1)
$ git add File_1.txt

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (update_1)
$ git commit -m "Adding file File_1 in Update_1 Branch"
[update_1 6277ae8] Adding file File_1 in Update_1 Branch
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 File_1.txt

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (update_1)
$ git status
On branch update_1
nothing to commit, working tree clean

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (update_1)
$
```

## 2.2 Using new Branch update\_2 and Adding file to the branch

```
CL MINGW64:/f/DOCUMENTS/MCA/s4/System Design Lab/Git
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (update_1)
$ git checkout update_2
Switched to branch 'update_2'

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (update_2)
$ git status
On branch update_2
nothing to commit, working tree clean

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (update_2)
$ git status
On branch update_2
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    File_2.txt

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

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (update_2)
$ git add File_2.txt

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (update_2)
$ git commit -m "Commit in new Branch Update_2"
[update_2 e6e2db9] Commit in new Branch Update_2
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 File_2.txt

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (update_2)
$ -
```

## 2.3 Using new Branch update\_3 and Adding file to the branch

```
CL MINGW64:/f/DOCUMENTS/MCA/s4/System Design Lab/Git
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (update_2)
$ git checkout update_3
Switched to branch 'update_3'

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (update_3)
$ git status
On branch update_3
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    File_3.txt

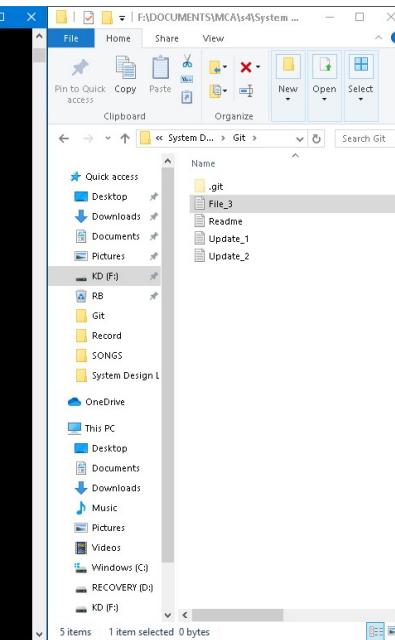
nothing added to commit but untracked files present (use "git add" to track)

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (update_3)
$ git add File_3.txt

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (update_3)
$ git commit -m "Commit in new Branch Update_3"
[update_3 c165a42] Commit in new Branch Update_3
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 File_3.txt

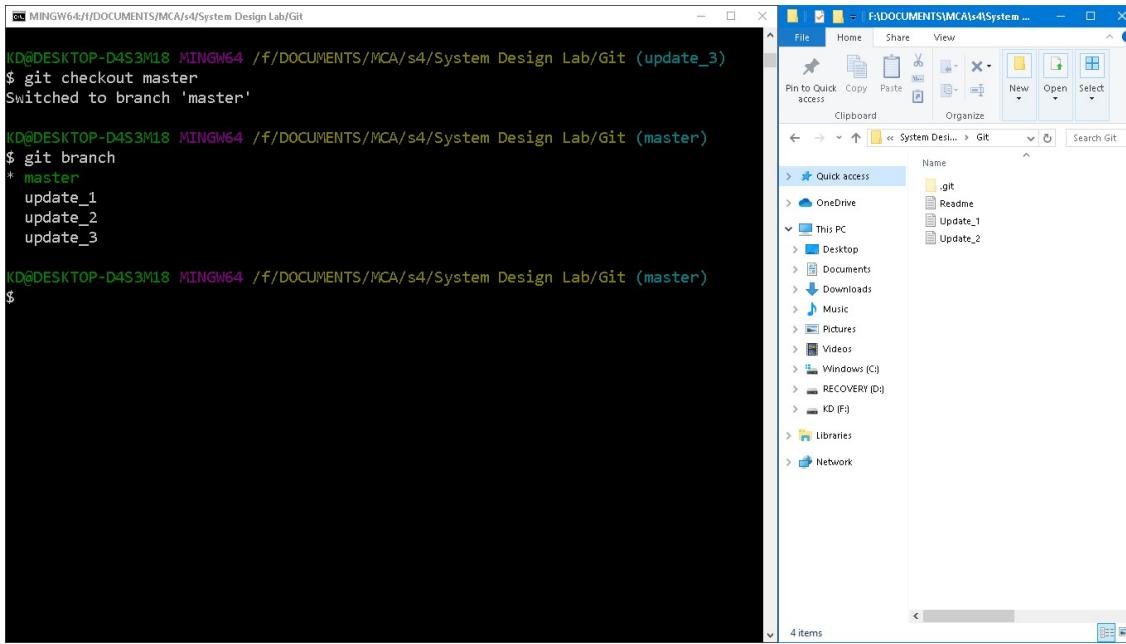
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (update_3)
$ git status
On branch update_3
nothing to commit, working tree clean

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (update_3)
$ -
```



The screenshot shows a Windows File Explorer window. The address bar indicates the path is F:\DOCUMENTS\MCA\s4\System Design Lab\Git. The left pane shows standard navigation icons. The right pane displays a list of files and folders. In the list, 'File\_3' is highlighted. Other items listed include '.git', 'File\_2.txt', 'Readme', 'Update\_1', and 'Update\_2'. The bottom status bar shows there are 5 items and 1 item selected, with a size of 0 bytes.

### 3.Checked out to Master branch.

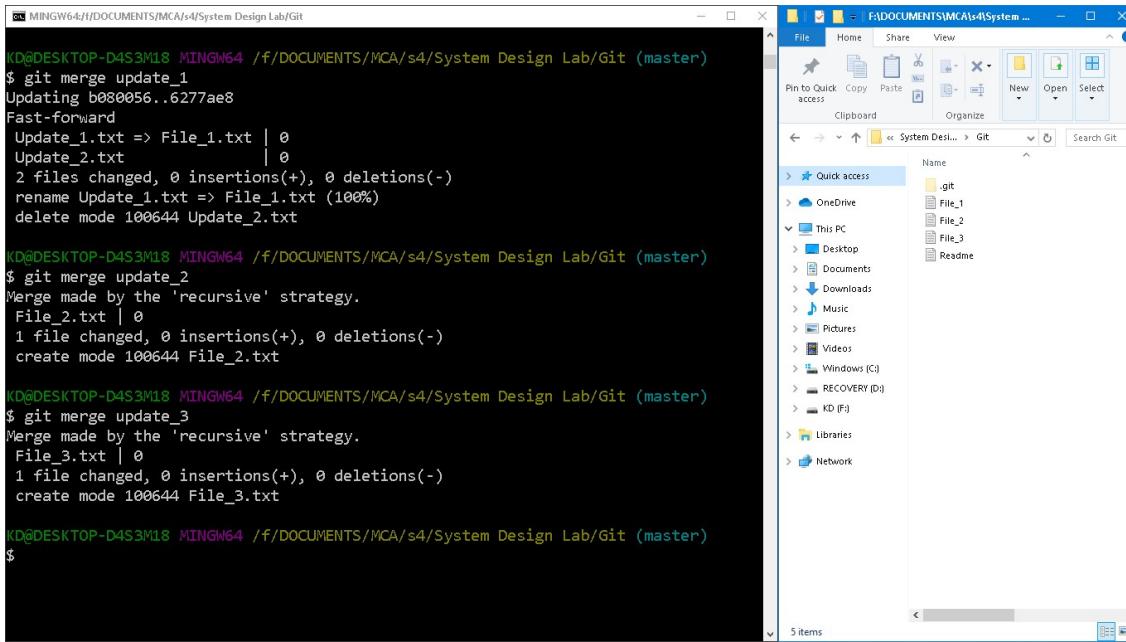


```
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (update_3)
$ git checkout master
Switched to branch 'master'

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (master)
$ git branch
* master
  update_1
  update_2
  update_3

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (master)
$
```

### 4.Merging new branches with Master.



```
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (master)
$ git merge update_1
Updating b680056..6277ae8
Fast-forward
 Update_1.txt => File_1.txt | 0
 Update_2.txt | 0
 2 files changed, 0 insertions(+), 0 deletions(-)
 rename Update_1.txt => File_1.txt (100%)
 delete mode 100644 Update_2.txt

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (master)
$ git merge update_2
Merge made by the 'recursive' strategy.
 File_2.txt | 0
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 File_2.txt

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (master)
$ git merge update_3
Merge made by the 'recursive' strategy.
 File_3.txt | 0
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 File_3.txt

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (master)
$
```

## 5. Deleting Branches.

The terminal window shows the deletion of three branches:

```
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (master)
$ git branch -d update_1
Deleted branch update_1 (was 6277ae8).

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (master)
$ git branch -d update_2
Deleted branch update_2 (was e6e2db9).

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (master)
$ git branch -d update_3
Deleted branch update_3 (was c165a42).

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (master)
$ git branch
* master
```

The file explorer window shows the directory structure:

- .git
- File\_1
- File\_2
- File\_3
- Readme

## 6. After Deletion

The terminal window shows the state of the repository after deletion:

```
$ clear

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (master)
$ git status
On branch master
nothing to commit, working tree clean

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (master)
$ git log --all --decorate --oneline --graph
*   567a734 (HEAD -> master) Merge branch 'update_3' into master
|\ 
| *  c165a42 Commit in new Branch Update_3
| * | e69cca1 Merge branch 'update_2' into master
| \ 
| * | e6e2db9 Commit in new Branch Update_2
| | 
| *  6277ae8 Adding file File_1 in Update_1 Branch
* | 07f4a0d Deleting old records
| |
| * b080056 Commit in new Branch Update_1
* 586f573 Adding Readme File

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (master)
$ git branch
* master

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git (master)
$
```

The file explorer window shows the directory structure:

- .git
- File\_1
- File\_2
- File\_3
- Readme

# **SD LAB**

**DATE : 05/07/2021**

**Task :Familiarize and illustrate basic Git Commands**

## **Commands Used**

### **1.Git Clone**

git clone is a Git command line utility which is used to target an existing repository and create a clone, or copy of the target repository.

Sample usage: git clone <remote url>

### **2.Git Push**

The git push command is used to upload local repository content to a remote repository.

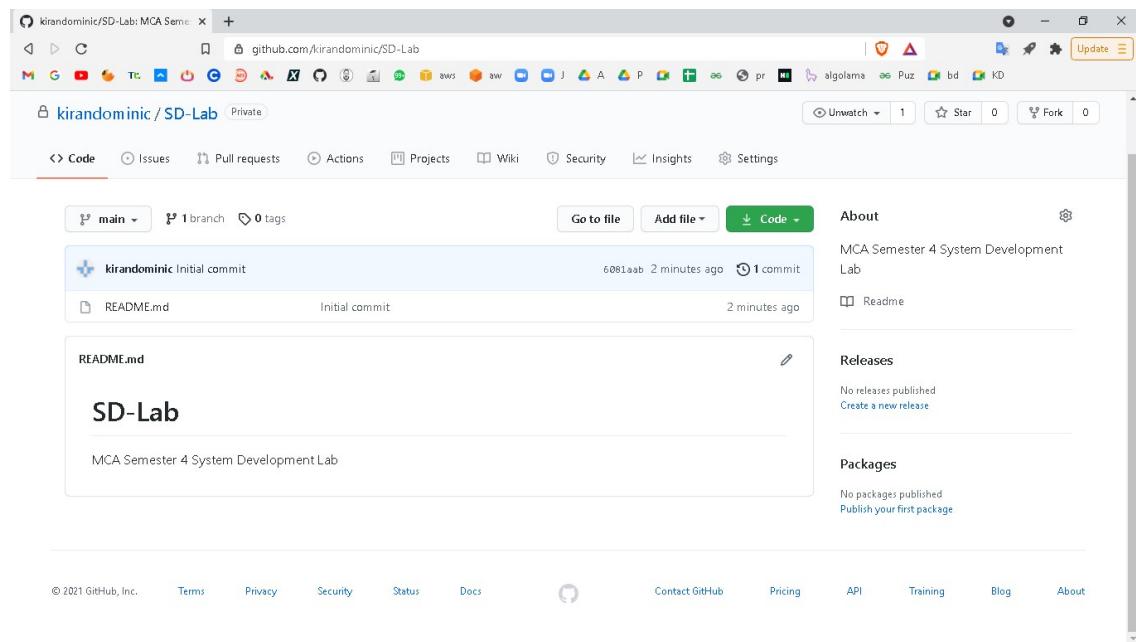
Sample usage: git push <remote> <branch>

### **3.Git Pull**

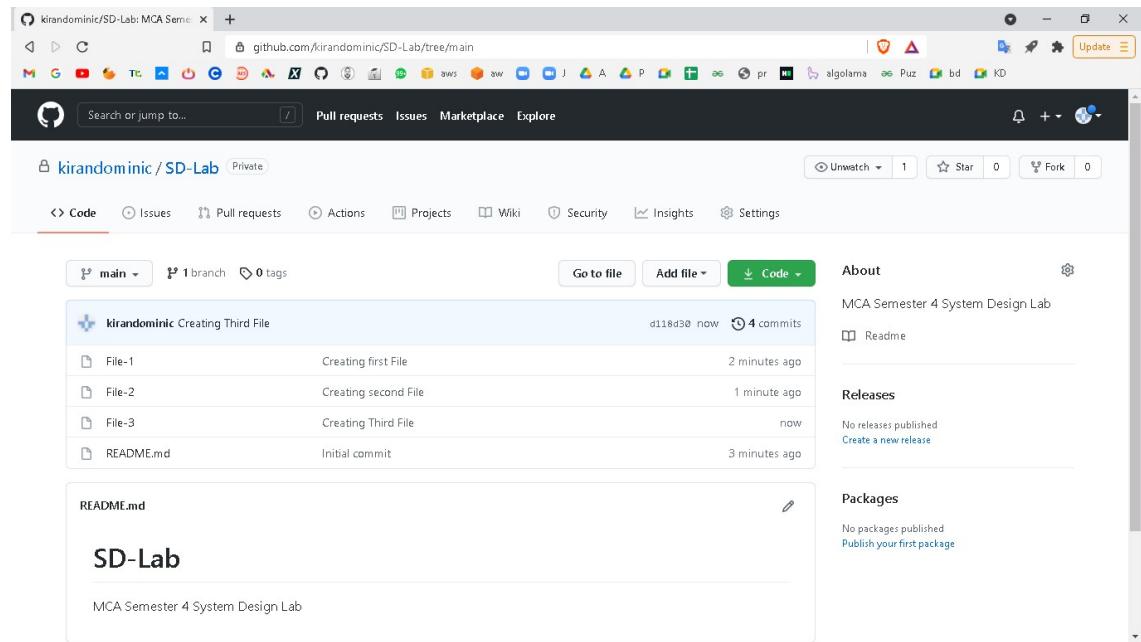
git pull is a Git command used to update the local version of a repository from a remote.

Sample usage: git pull REMOTE-NAME BRANCH-NAME

## 1. Create a Remote Repository



## 2. Add Files to the Remote Repository



### 3. Clone the Repository

The screenshot shows a terminal window on the left and a file explorer window on the right. The terminal window displays the command \$ git clone https://github.com/kirandominic/SD-Lab.git and its execution. The file explorer window shows the local repository structure at F:\DOCUMENTS\{MCA}s4\System Design Lab\Git\SD-Lab, which contains a .git folder and three files: File-1, File-2, and File-3.

```
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab (main)
$ git clone https://github.com/kirandominic/SD-Lab.git
Cloning into 'SD-Lab'...
remote: Enumerating objects: 12, done.
remote: Counting objects: 100% (12/12), done.
remote: Compressing objects: 100% (7/7), done.
remote: Total 12 (delta 1), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (12/12), 2.50 KiB | 2.00 KiB/s, done.

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab (main)
$
```

Name	Date modified	Type
.git	7/7/2021 10:18 AM	File folder
SD-Lab	7/7/2021 10:29 AM	File folder
File-1	7/7/2021 10:25 AM	File
File-2	7/7/2021 10:25 AM	File
File-3	7/7/2021 10:24 AM	File
README	7/7/2021 10:18 AM	Markdown Source ...

### 4. Modify Files Local Repository

The screenshot shows a terminal window on the left and a file explorer window on the right. The terminal window displays the command \$ git status and its output, followed by \$ git commit and its output. The file explorer window shows the local repository structure at F:\DOCUMENTS\{MCA}s4\System Design Lab\Git\SD-Lab\SD-Lab, which contains a .git folder and three files: File-1, File-2, and File-3.

```
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab (main)
$ git status
On branch main
Your branch is up to date with 'origin/main'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    modified:   File-2
    modified:   File-3
    new file:   SD-Lab

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab (main)
$ git commit -m "Changes From Local Repository"
[main 9649457] Changes From Local Repository
 3 files changed, 3 insertions(+)
 create mode 160000 SD-Lab

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab (main)
$
```

Name	Date modified	Type
.git	7/7/2021 11:48 AM	File folder
File-1	7/7/2021 10:29 AM	File
File-2	7/7/2021 10:29 AM	File
File-3	7/7/2021 10:29 AM	File
README	7/7/2021 10:29 AM	Markdown Source ...

## 5. Push Files to the github.

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab (main)  
\$ git push -u origin main  
Enumerating objects: 7, done.  
Counting objects: 100% (7/7), done.  
Delta compression using up to 4 threads  
Compressing objects: 100% (2/2), done.  
Writing objects: 100% (4/4), 400 bytes | 200.00 KiB/s, done.  
Total 4 (delta 0), reused 0 (delta 0), pack-reused 0  
To https://github.com/kirandominic/SD-Lab.git  
d118d30..9649457 main -> main  
Branch 'main' set up to track remote branch 'main' from 'origin'.  
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab (main)  
\$

F:\DOCUMENTS\MCA\s4\System Design Lab\Git\SD-Lab\SD-Lab

Name	Date modified	Type
.git	7/7/2021 11:48 AM	File folder
File-1	7/7/2021 10:29 AM	File
File-2	7/7/2021 10:29 AM	File
File-3	7/7/2021 10:29 AM	File
README	7/7/2021 10:29 AM	Markdown Source ...

kirandominic/SD-Lab: MCA Semester 4 System Design Lab

Code Issues Pull requests Actions Projects Wiki Security Insights Settings

main · 1 branch · 0 tags

kirandominic Changes From Local Repository 9649457 7 minutes ago 5 commits

File	Message	Time Ago
SD-Lab	Changes From Local Repository	7 minutes ago
File-1	Creating first File	2 hours ago
File-2	Changes From Local Repository	7 minutes ago
File-3	Changes From Local Repository	7 minutes ago
README.md	Initial commit	2 hours ago

README.md

SD-Lab

MCA Semester 4 System Design Lab

About

MCA Semester 4 System Design Lab

Readme

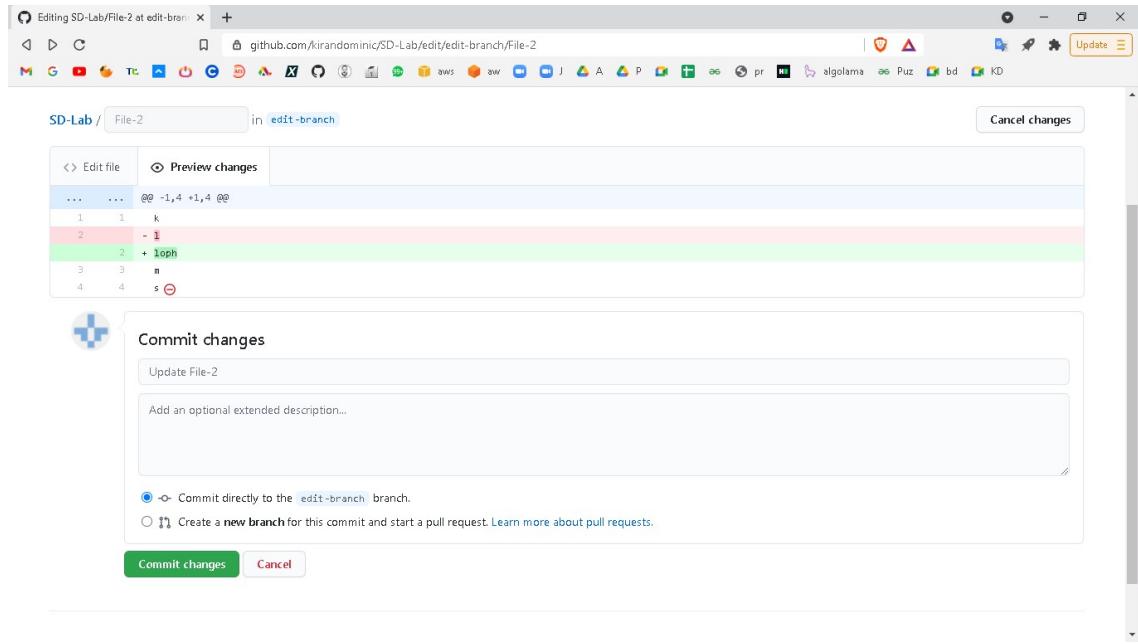
Releases

No releases published Create a new release

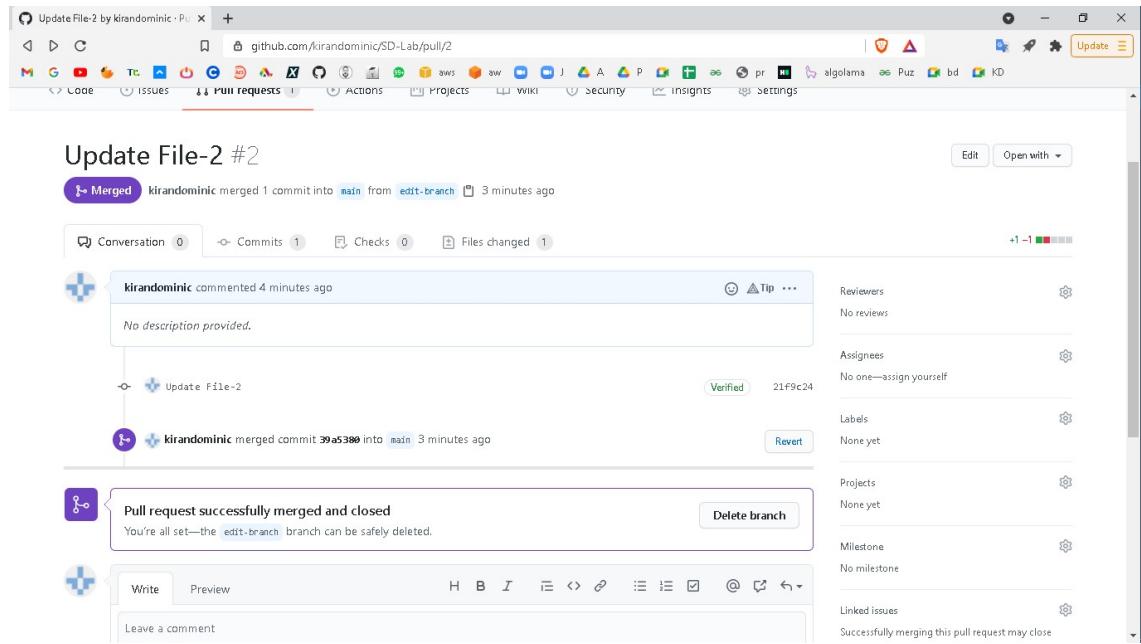
Packages

No packages published Publish your first package

## **6. Modify Files from the Remote Repository(Create New Branch)**



## **7. Try Pull request from github.**



## 8. Resolve MergeConflicts

A screenshot of a GitHub pull request page for a file named "File-1.txt". The pull request is from the "Feature" branch into the "main" branch. The commit hash is 1c2ca0. A message at the top says "kirandominic wants to merge 1 commit into main from Feature". Below the message, there's a note: "Still in progress? Convert to draft". To the right, there are sections for "Assignees" (None yet), "Labels" (None yet), "Projects" (None yet), "Milestone" (None yet), and "Linked issues" (None yet). A "Resolve conflicts" button is visible. The main content area shows a conflict in "File-1.txt":

```
a
<<<<< Feature
nji
=====
kkkk
>>>> main
c
d
```

A screenshot of the GitHub web editor showing the "File-1.txt" file with a conflict. The conflict is highlighted with yellow boxes around lines 2-6. The "Resolve conflicts" button is visible at the top of the editor. The code in the file is:

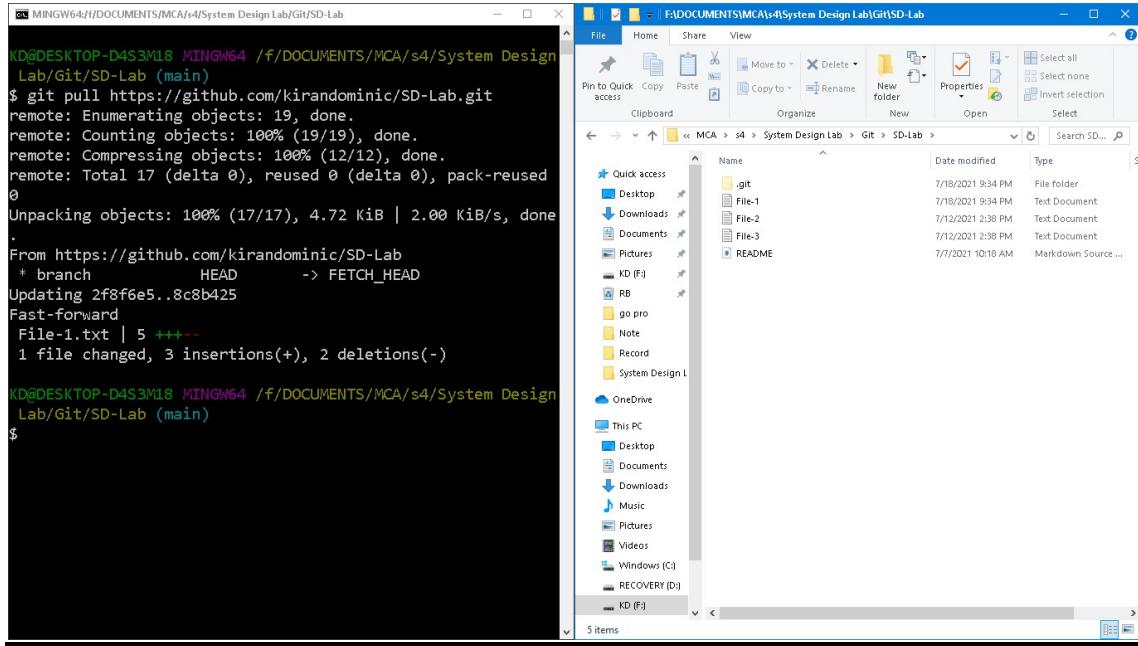
```
a
<<<<< Feature
nji
=====
kkkk
>>>> main
c
d
```

A screenshot of a web browser displaying a GitHub pull request page. The URL is [github.com/kirandominic/SD-Lab/pull/6](https://github.com/kirandominic/SD-Lab/pull/6). The title of the pull request is "Update File-1.txt #6". A note at the top says "Resolving conflicts between Feature and main and committing changes → Feature". The main content shows a single file named "File-1.txt" with 1 conflict. The file's content is as follows:

```
a
nji
kkkk
c
d
```

A screenshot of a GitHub pull request merge interface. The title is "Update File-1.txt #6" and it says "kirandominic wants to merge 2 commits into main from Feature". The merge button is highlighted with a green "Open" button. The merge message is "Merge branch 'main' into Feature". Below the message, there is a note: "Add more commits by pushing to the Feature branch on kirandominic/SD-Lab." A modal window titled "Merge pull request #6 from kirandominic/Feature" is open, showing the commit "Update File-1.txt". There are two buttons: "Confirm merge" and "Cancel". On the right side of the interface, there are various settings and status indicators: "Verified" (d5c81cc), "Labels" (None yet), "Projects" (None yet), "Milestone" (No milestone), "Linked issues" (None yet), "Notifications" (Customize, Unsubscribe), and "1 participant". At the bottom, there is a note about following GitHub Community Guidelines and a "Comment" button.

## **9. Pull the contents from remote repository to the local repository**



```
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab (main)
$ git pull https://github.com/kirandominic/SD-Lab.git
remote: Enumerating objects: 19, done.
remote: Counting objects: 100% (19/19), done.
remote: Compressing objects: 100% (12/12), done.
remote: Total 17 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (17/17), 4.72 KiB | 2.00 KiB/s, done
.
From https://github.com/kirandominic/SD-Lab
 * branch      HEAD      -> FETCH_HEAD
Updating 2f8f6e5..8c8b425
Fast-forward
 File-1.txt | 5 +----
 1 file changed, 3 insertions(+), 2 deletions(-)

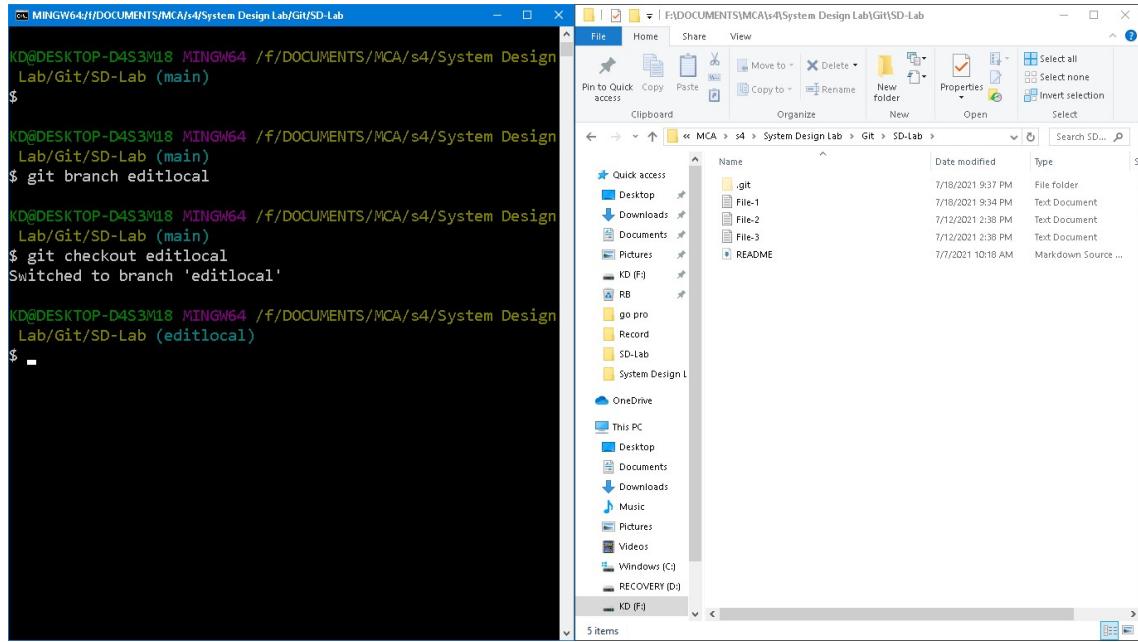
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab (main)
$
```

F:\DOCUMENTS\MCAs4\System Design Lab\Git\SD-Lab

Name	Date modified	Type
.git	7/18/2021 9:34 PM	File folder
File-1	7/18/2021 9:34 PM	Text Document
File-2	7/12/2021 2:38 PM	Text Document
File-3	7/12/2021 2:38 PM	Text Document
README	7/7/2021 10:18 AM	Markdown Source ...

## **10. Create a separate branch and do the modifications on that branch**

### **Creating branch**



```
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab (main)
$ git branch editlocal

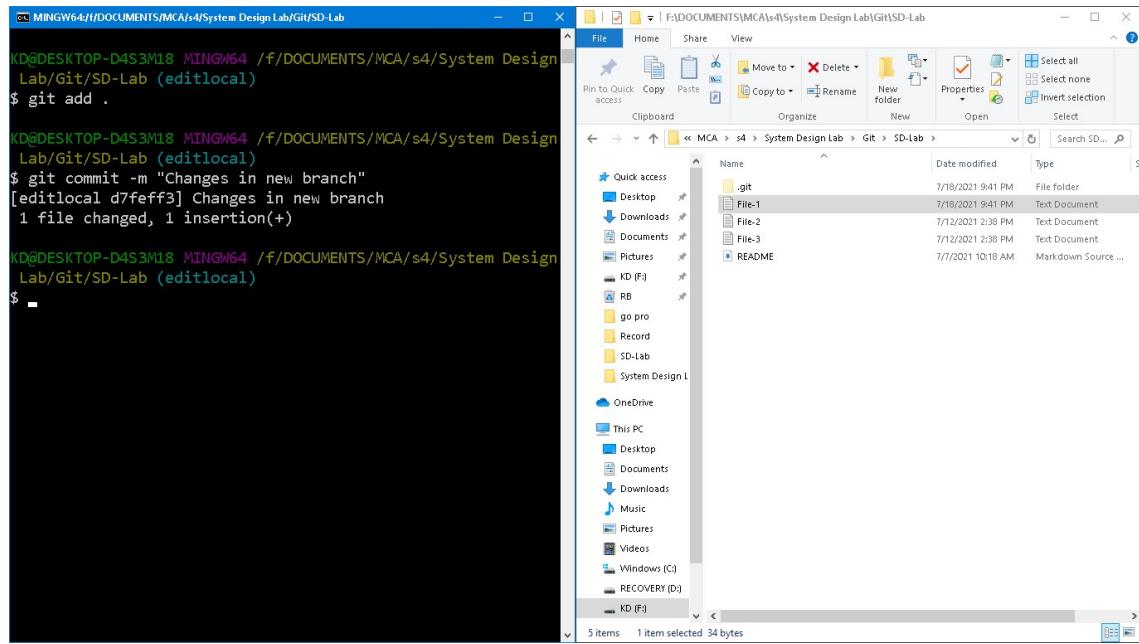
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab (main)
$ git checkout editlocal
Switched to branch 'editlocal'

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab (editlocal)
$
```

F:\DOCUMENTS\MCAs4\System Design Lab\Git\SD-Lab

Name	Date modified	Type
.git	7/18/2021 9:37 PM	File folder
File-1	7/18/2021 9:34 PM	Text Document
File-2	7/12/2021 2:38 PM	Text Document
File-3	7/12/2021 2:38 PM	Text Document
README	7/7/2021 10:18 AM	Markdown Source ...

## Changes in new branch



```
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab (editlocal)
$ git add .

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab (editlocal)
$ git commit -m "Changes in new branch"
[editlocal d7feff3] Changes in new branch
 1 file changed, 1 insertion(+)

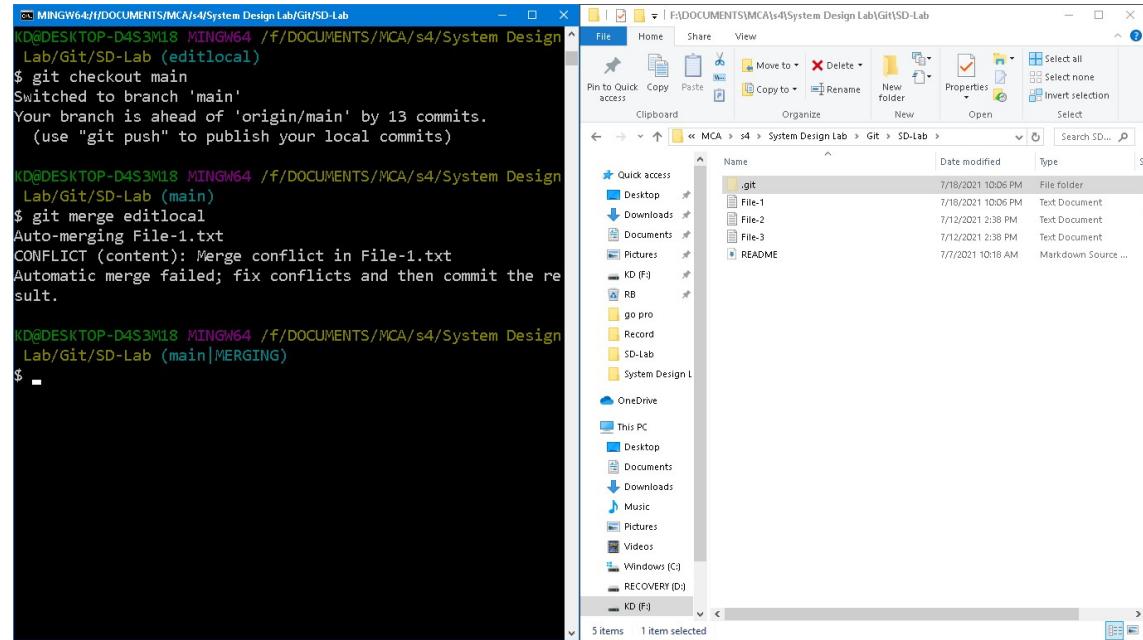
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab (editlocal)
$
```

F:\DOCUMENTS\MCA\s4\System Design Lab\Git\SD-Lab

Name	Date modified	Type
.git	7/18/2021 9:41 PM	File folder
File-1	7/18/2021 9:41 PM	Text Document
File-2	7/12/2021 2:38 PM	Text Document
File-3	7/12/2021 2:38 PM	Text Document
README	7/7/2021 10:18 AM	Markdown Source ...

## 11. Merge new branch with master branch and delete new branch( resolve conflicts if any)

### Conflict



```
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab (editlocal)
$ git checkout main
Switched to branch 'main'
Your branch is ahead of 'origin/main' by 13 commits.
  (use "git push" to publish your local commits)

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab (main)
$ git merge editlocal
Auto-merging File-1.txt
CONFLICT (content): Merge conflict in File-1.txt
Automatic merge failed; fix conflicts and then commit the result.

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab (main|MERGING)
$
```

F:\DOCUMENTS\MCA\s4\System Design Lab\Git\SD-Lab

Name	Date modified	Type
.git	7/18/2021 10:05 PM	File folder
File-1	7/18/2021 10:05 PM	Text Document
File-2	7/12/2021 2:38 PM	Text Document
File-3	7/12/2021 2:38 PM	Text Document
README	7/7/2021 10:18 AM	Markdown Source ...

## Fixing conflict

KD@DESKTOP-0453W18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab

Lab/Git

File - Notepad

\$ git ch a  
Switched to branch a  
Your branch is up-to-date with 'origin/a'.  
(use "git merge" -m "merge a into HEAD" to integrate)  
HEAD is now at 1e03d4c... as  
as  
gigh  
>>>>> editlocal  
Auto-merging d  
CONFLICT (content): Merge conflict in 'd'.  
Automatic result.  
Automatic result.

KD@DESKTOP-0453W18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab

File - Notepad

\$

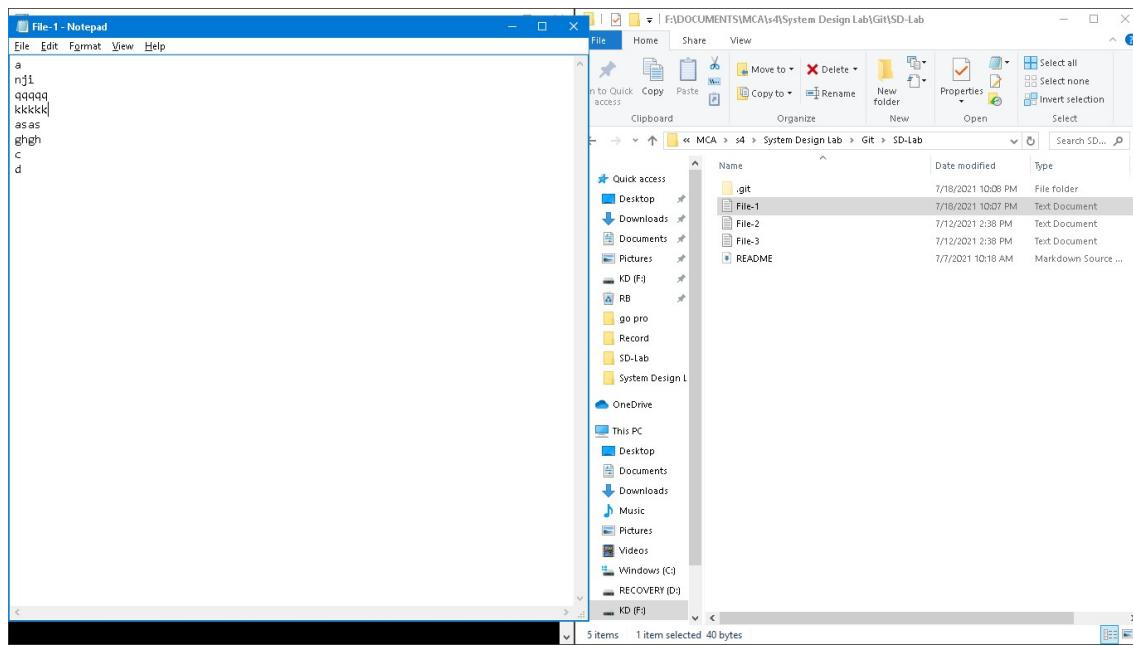
F:\DOCUMENTS\MCA\s4\System Design Lab\Git\SD-Lab

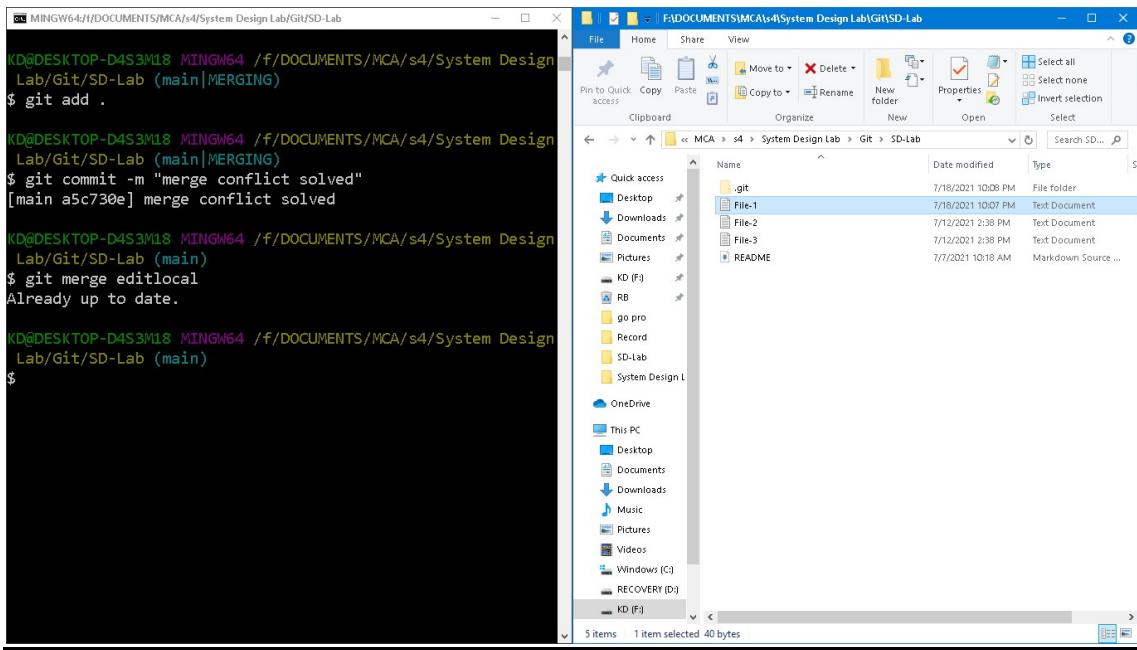
File Home Share View

Paste Move to Delete Rename New folder Properties Open Select

Name Date modified Type

.git 7/18/2021 10:06 PM File folder  
File-1 7/18/2021 10:06 PM Text Document  
File-2 7/18/2021 2:38 PM Text Document  
File-3 7/18/2021 2:38 PM Text Document  
README 7/7/2021 10:18 AM Markdown Source ...





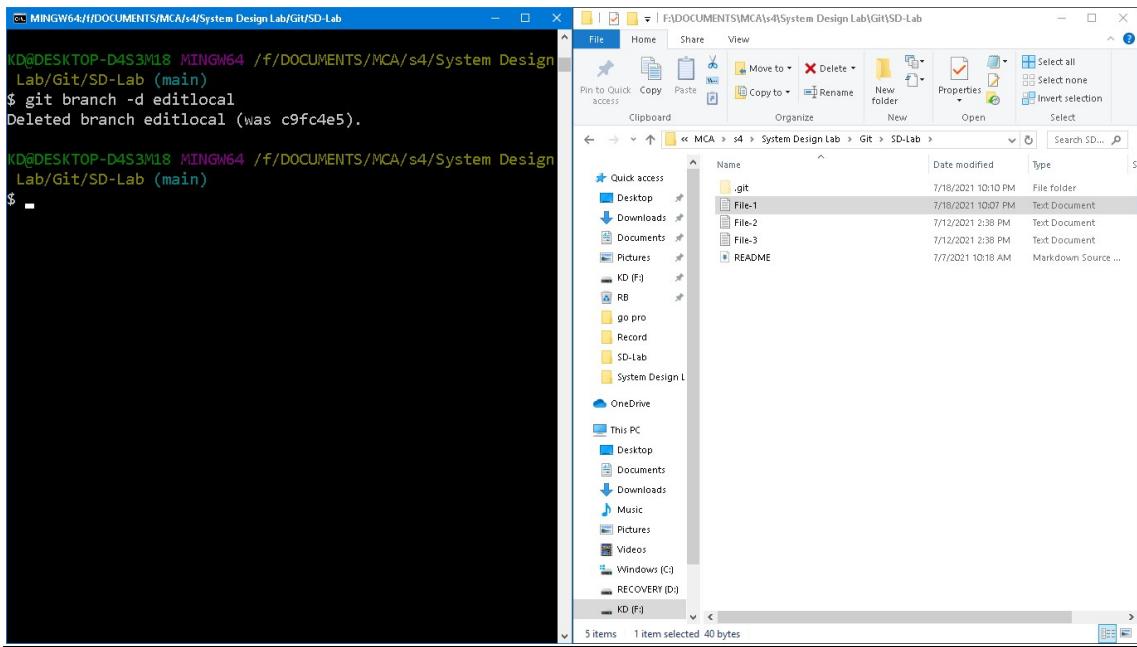
```
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab
$ git add .

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab (main|MERGING)
$ git commit -m "merge conflict solved"
[main a5c730e] merge conflict solved

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab (main)
$ git merge editlocal
Already up to date.

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab (main)
```

## Deleting new branch



```
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab (main)
$ git branch -d editlocal
Deleted branch editlocal (was c9fc4e5).

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab (main)
$ -
```

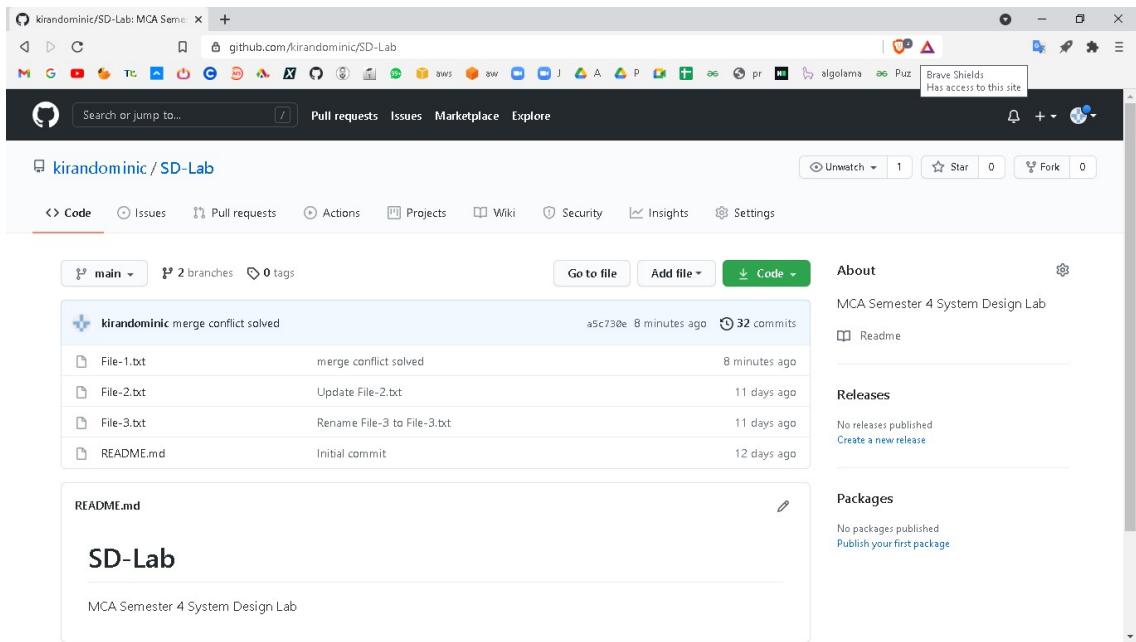
## 12.Push the files to the Github

```
MINGW64:/f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab (main)
$ git merge editlocal
Already up to date.

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab (main)
$ git branch -d editlocal
Deleted branch editlocal (was c9fc4e5).

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab (main)
$ git push https://github.com/kirandominic/SD-Lab.git main
Enumerating objects: 21, done.
Counting objects: 100% (21/21), done.
Delta compression using up to 4 threads
Compressing objects: 100% (13/13), done.
Writing objects: 100% (19/19), 2.01 KiB | 513.00 KiB/s, done.
Total 19 (delta 3), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (3/3), done.
To https://github.com/kirandominic/SD-Lab.git
  8c8b425..a5c730e main -> main

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab (main)
$
```



# SD LAB

DATE : 05/07/2021

## Task :Familiarize and illustrate basic Git Commands

### Commands Used

#### 1.Git Stash

git stash temporarily shelves (or stashes) changes you've made to your working copy so you can work on something else, and then come back and re-apply them later on

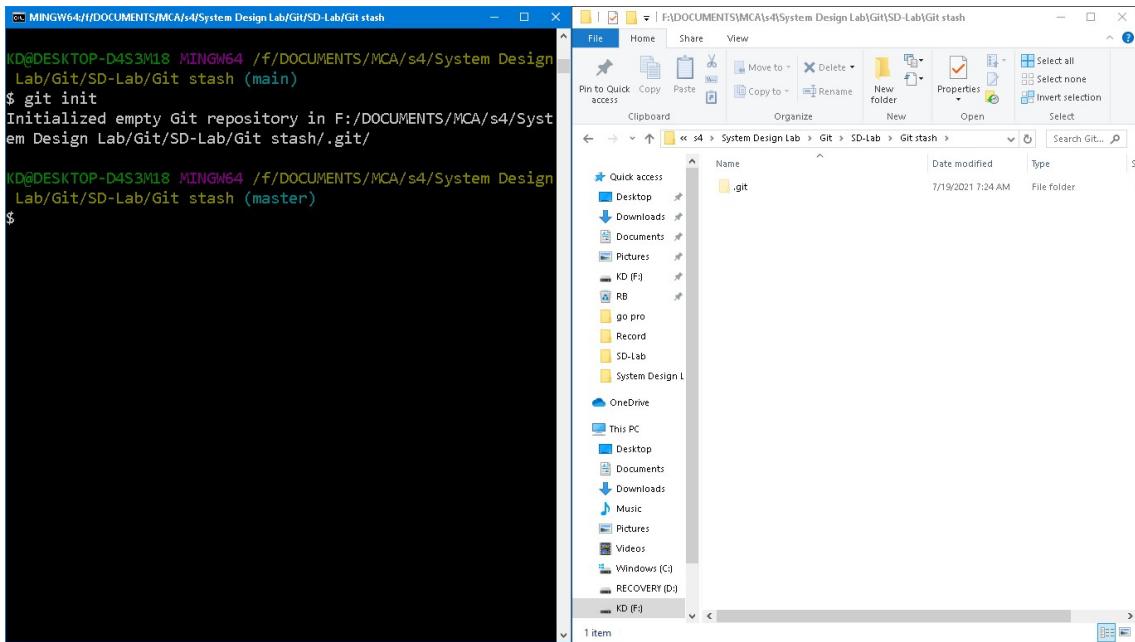
Sample usage: git stash

#### 2.Git stash Pop

apply the changes as well as remove stored files from stash area.

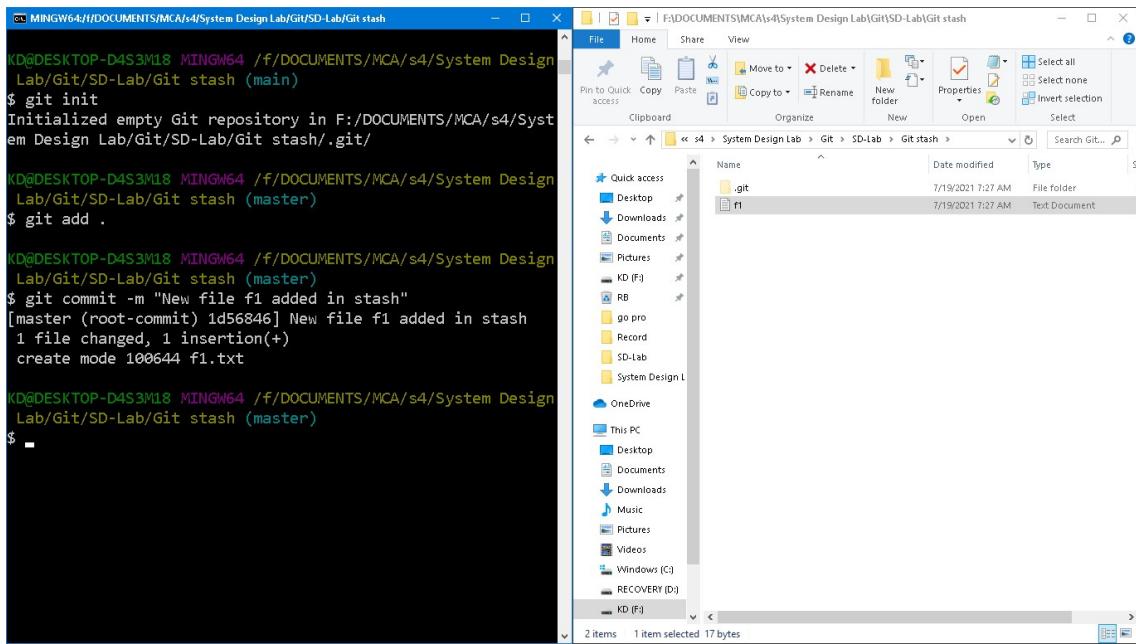
Sample usage: git stash pop

1. Create Git stash and perform init command



```
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash (main)
$ git init
Initialized empty Git repository in F:/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash/.git/
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash (master)
$
```

## 2. Add file f1 and commit it



```
MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash (main)
$ git init
Initialized empty Git repository in F:/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash/.git/
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash (master)
$ git add .

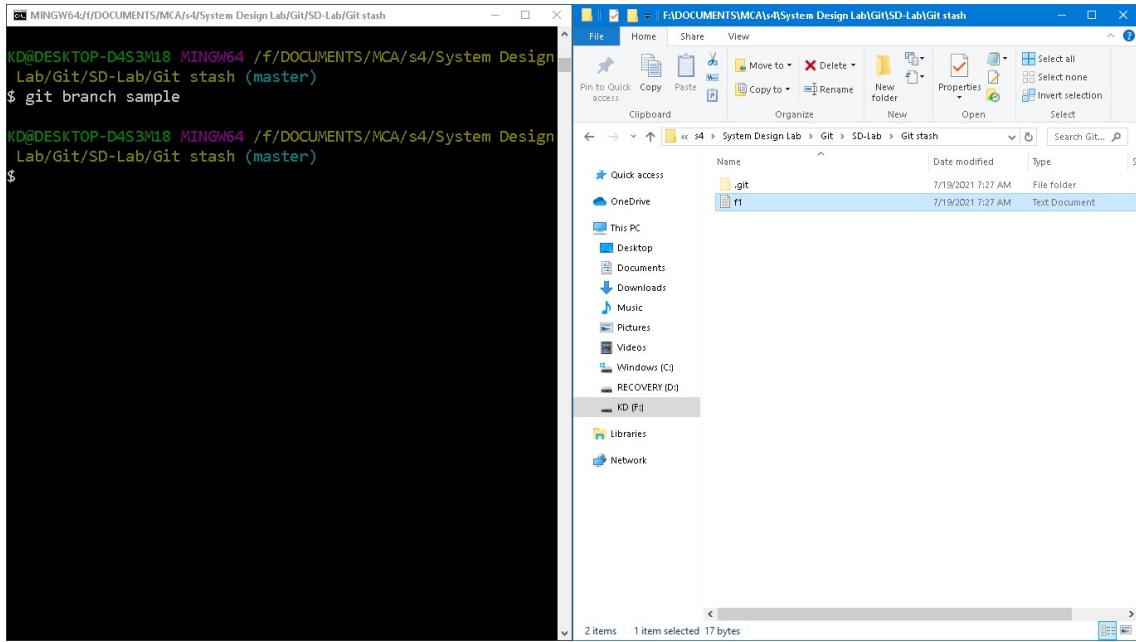
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash (master)
$ git commit -m "New file f1 added in stash"
[master (root-commit) 1d56846] New file f1 added in stash
 1 file changed, 1 insertion(+)
 create mode 100644 f1.txt

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash (master)
$
```

The file explorer shows the following directory structure:

- System Design Lab > Git > SD-Lab > Git stash
- File list:
  - .git (File folder)
  - f1 (Text Document)

## 3. Create another branch ‘Sample’.

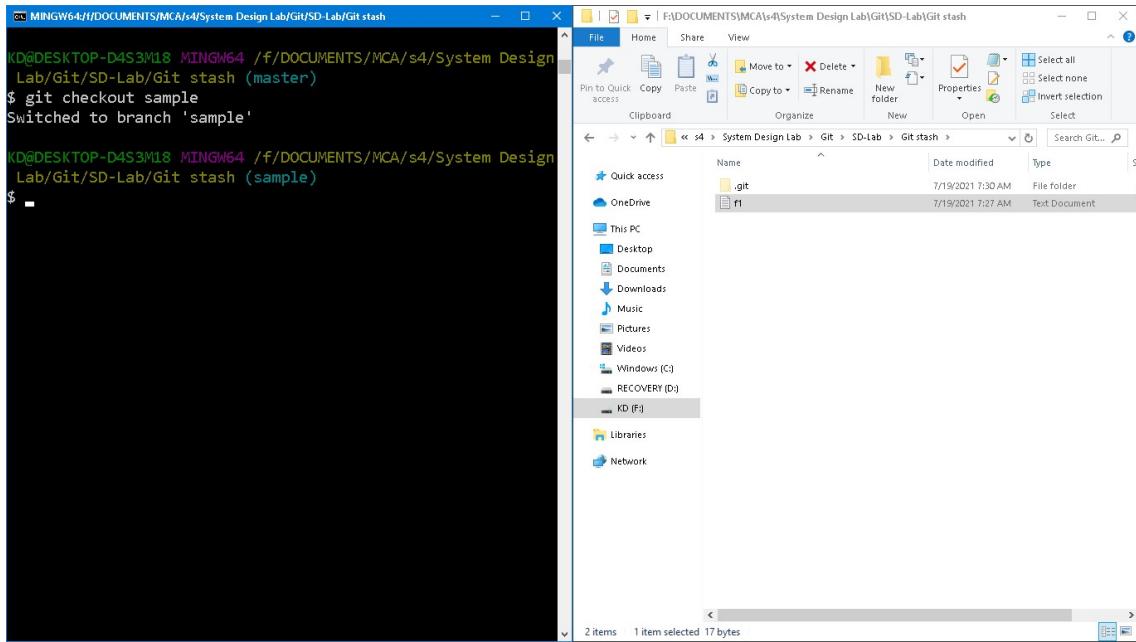


```
MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash (master)
$ git branch sample

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash (master)
$
```

The file explorer shows the same directory structure as the previous screenshot, with the 'Git stash' folder containing the 'f1' file.

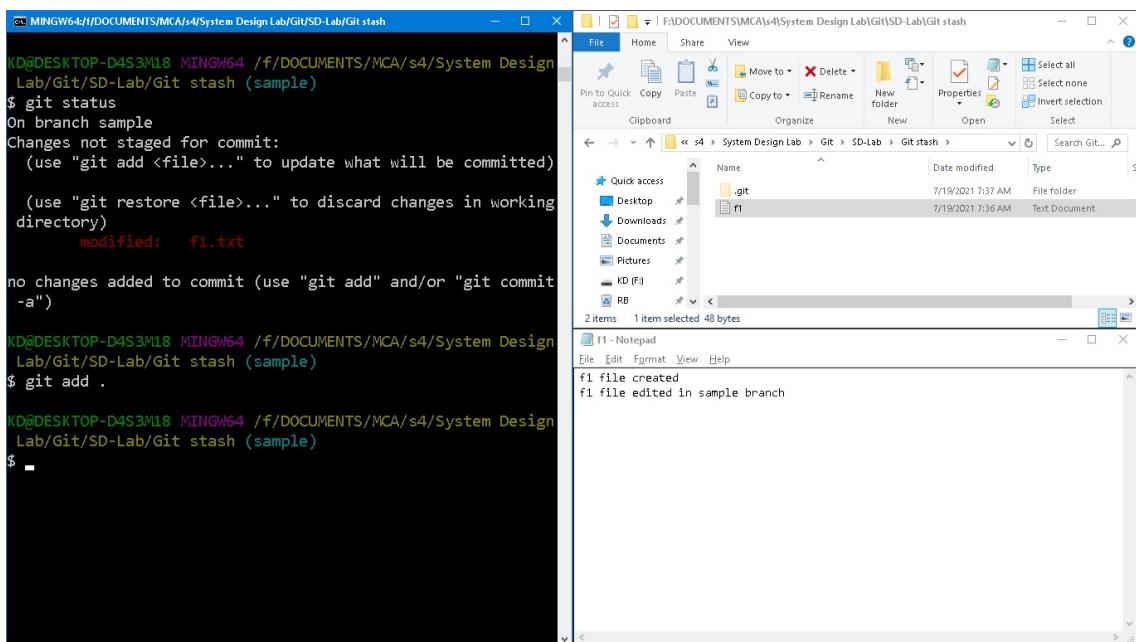
#### 4. Checkout to sample.



```
MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash (master)
$ git checkout sample
Switched to branch 'sample'

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash (sample)
$
```

#### 5. Edit File f1.txt



```
MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash (sample)
$ git status
On branch sample
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)

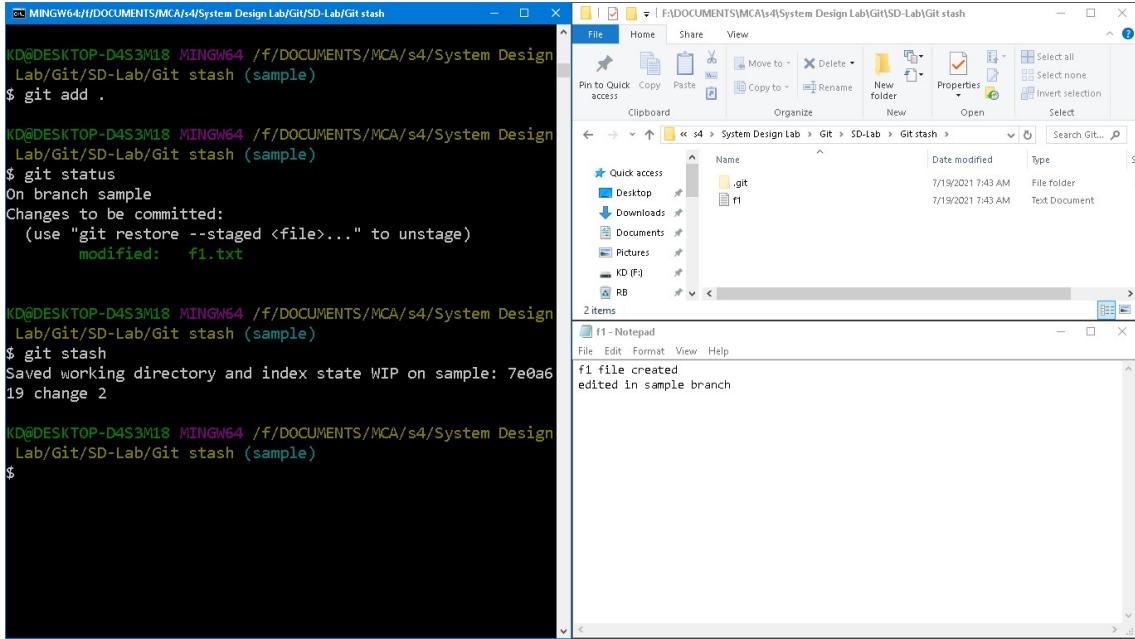
    (use "git restore <file>..." to discard changes in working
     directory)
      modified:   f1.txt

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

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash (sample)
$ git add .

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash (sample)
$
```

## 6. Execute stash command and view changes in f1.txt



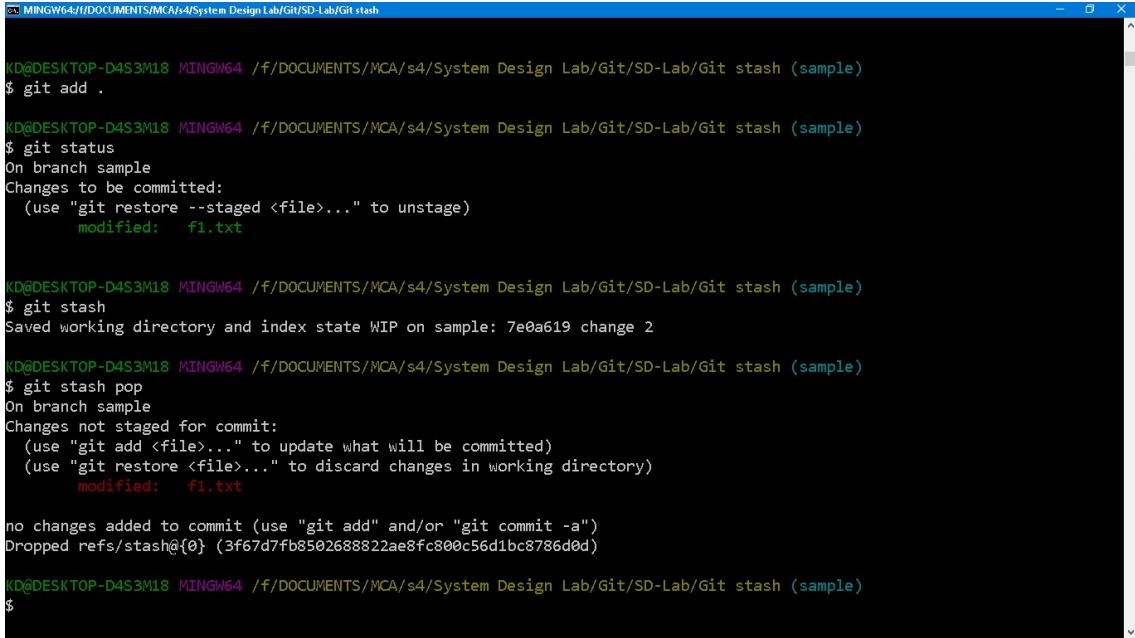
```
MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash (sample)
$ git add .

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash (sample)
$ git status
On branch sample
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    modified:   f1.txt

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash (sample)
$ git stash
Saved working directory and index state WIP on sample: 7e0a619 change 2

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash (sample)
$
```

## 7. Execute Git stash Pop



```
MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash
KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash (sample)
$ git add .

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash (sample)
$ git status
On branch sample
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    modified:   f1.txt

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash (sample)
$ git stash
Saved working directory and index state WIP on sample: 7e0a619 change 2

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash (sample)
$ git stash pop
On branch sample
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:   f1.txt

no changes added to commit (use "git add" and/or "git commit -a")
Dropped refs/stash@{0} (3f67d7fb8502688822ae8fc800c56d1bc8786d0d)

KD@DESKTOP-D4S3M18 MINGW64 /f/DOCUMENTS/MCA/s4/System Design Lab/Git/SD-Lab/Git stash (sample)
$
```

Submitted by  
KIRAN DOMINIC  
RL-MCA  
RollNo :10