

#1)GitHub account creation:-

#2)EXPLORING GIT COMMANDS THROUGH COLLABORATIVE CODING

*setting up git repository:-

```
IMRDCOPM112@IMRDCOMP112 MINGW64 ~ (main)
$ git config --global --unset user.name

IMRDCOPM112@IMRDCOMP112 MINGW64 ~ (main)
$ git config --global --unset user.email

IMRDCOPM112@IMRDCOMP112 MINGW64 ~ (main)
$ git config --global user.name Durgesh-20

IMRDCOPM112@IMRDCOMP112 MINGW64 ~ (main)
$ git config --global user.email malidurgesh276@gmail.com

IMRDCOPM112@IMRDCOMP112 MINGW64 ~ (main)
$ git config --list
diff.astextplain.textconv=astextplain
filter.lfs.clean=git-lfs clean -- %f
filter.lfs.smudge=git-lfs smudge -- %f
filter.lfs.process=git-lfs filter-process
filter.lfs.required=true
http.sslbackend=schannel
core.autocrlf=true
core.fscache=true
core.symlinks=false
pull.rebase=false
credential.helper=manager
credential.https://dev.azure.com.usehttppath=true
init.defaultbranch=master
user.name=Durgesh-20
user.email=malidurgesh276@gmail.com
core.repositoryformatversion=0
core.filemode=false
core.bare=false
core.logallrefupdates=true
core.symlinks=false
core.ignorecase=true

IMRDCOPM112@IMRDCOMP112 MINGW64 ~ (main)
$ mkdir dmpproject

IMRDCOPM112@IMRDCOMP112 MINGW64 ~ (main)
$ cd dmpproject

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmpproject (main)
$ git init
Initialized empty Git repository in C:/Users/IMRDCOPM112/dmpproject/.git/
```

*Creating and committing changes:-

```
IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmpproject (master)
$ touch file page.txt

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmpproject (master)
$ ls
file  page.txt

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmpproject (master)
$ git add page.txt

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmpproject (master)
$ git status
On branch master

No commits yet

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

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

file

```
IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmproject (master)
$ git commit -m "successfully committed file page.txt"
[master (root-commit) 9d223f1] successfully committed file page.txt
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 page.txt
```

```
IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmproject (master)
$ git remote add origin https://github.com/Durgesh-20/practice1.git
```

```
IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmproject (master)
$ git push origin master
info: please complete authentication in your browser...
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Writing objects: 100% (3/3), 228 bytes | 228.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: Create a pull request for 'master' on GitHub by visiting:
remote:   https://github.com/Durgesh-20/practice1/pull/new/master
remote:
To https://github.com/Durgesh-20/practice1.git
 * [new branch]      master -> master
```

***Branching and merging:-**

```
IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmproject (master)
$ git branch branchdm
```

```
IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmproject (master)
$ git checkout branchdm
Switched to branch 'branchdm'
```

```
IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmproject (branchdm)
$ touch page.html
```

```
IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmproject (branchdm)
$ touch page1.txt
```

```
IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmproject (branchdm)
$ git add .
```

```
IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmproject (branchdm)
$ git status
On branch branchdm
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   file
        new file:   page.html
        new file:   page1.txt
```

```
IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmproject (branchdm)
$ git commit -m "successfully committed all files"
[branchdm d93882a] successfully committed all files
3 files changed, 0 insertions(+), 0 deletions(-)
create mode 100644 file
create mode 100644 page.html
create mode 100644 page1.txt
```

```
IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmproject (branchdm)
$ git push origin branchdm
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Delta compression using up to 12 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (2/2), 268 bytes | 268.00 KiB/s, done.
Total 2 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: Create a pull request for 'branchdm' on GitHub by visiting:
remote:   https://github.com/Durgesh-20/practice1/pull/new/branchdm
remote:
To https://github.com/Durgesh-20/practice1.git
 * [new branch]      branchdm -> branchdm
```

```
IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmproject (branchdm)
$ git merge branchdm
Already up to date.
```

```
IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmproject (branchdm)
$
```

#3)IMPLEMENT GITHUB OPERATIONS USING GIT

*Cloning a Repository:-

```
IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmproject2 (dm2)
$ git clone https://github.com/Durgesh-20/practice.git
Cloning into 'practice'...
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
Receiving objects: 100% (3/3), done.
```

*Making changes and creating a Branch:-

```
IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmproject2 (dm2)
$ git branch dm3

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmproject2 (dm2)
$ git checkout dm3
Switched to branch 'dm3'

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmproject2 (dm3)
$ echo "this is new file or feature"> om3.txt

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmproject2 (dm3)
$ ls
file  om.txt  om2.txt  om3.txt  practice/

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmproject2 (dm3)
$ git add om3.txt
warning: in the working copy of 'om3.txt', LF will be replaced by CRLF the next time Git touches it

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmproject2 (dm3)
$ git add om3.txt

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmproject2 (dm3)
$ git status
On branch dm3
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   om3.txt

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

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmproject2 (dm3)
$ git add .

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmproject2 (dm3)
$ git status
On branch dm3
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   om3.txt
    new file:   practice

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmproject2 (dm3)
$ git commit -m "added om3.txt file"
[dm3 6e969a4] added om3.txt file
 2 files changed, 2 insertions(+)
 create mode 100644 om3.txt
 create mode 160000 practice

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmproject2 (dm3)
$ git push origin dm3
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 12 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 391 bytes | 391.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: Create a pull request for 'dm3' on GitHub by visiting:
remote:   https://github.com/Durgesh-20/dm5/pull/new/dm3
remote:
To https://github.com/Durgesh-20/dm5.git
 * [new branch]      dm3 -> dm3
```

```
IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dmproject2 (dm3)
$ git pull origin dm3
From https://github.com/Durgesh-20/dm5
* branch      dm3      -> FETCH_HEAD
Already up to date.
```

#4)docker account creation:-

#5)PRACTICAL ON VERSION CONTROL TOOLS

```
IMRDCOPM112@IMRDCOMP112 MINGW64 ~ (main)
$ mkdir dinu

IMRDCOPM112@IMRDCOMP112 MINGW64 ~ (main)
$ cd dinu

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dinu (main)
$ git init
Initialized empty Git repository in C:/Users/IMRDCOPM112/dinu/.git/

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dinu (master)
$ echo "my first git repo">index.txt

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dinu (master)
$ ls
index.txt

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dinu (master)
$ git add index.txt
warning: in the working copy of 'index.txt', LF will be replaced by CRLF the next time Git
touches it

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dinu (master)
$ git add index.txt

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dinu (master)
$ git status
On branch master

No commits yet

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

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dinu (master)
$ git commit -m "successfully commit with index"
[master (root-commit) 053e0fc] successfully commit with index
1 file changed, 1 insertion(+)
create mode 100644 index.txt

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dinu (master)
$ echo "this is git session">>index.txt

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dinu (master)
$ git status
On branch 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:   index.txt

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

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dinu (master)
$ git diff
warning: in the working copy of 'index.txt', LF will be replaced by CRLF the next time Git
touches it
diff --git a/index.txt b/index.txt
index 471d151..b1f165e 100644
--- a/index.txt
+++ b/index.txt
@@ -1,2 @@
 my first git repo
+this is git session

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dinu (master)
$ git add index.txt

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dinu (master)
$ git commit -m "updated index with session info"
```

```

[master 63839fe] updated index with session info
1 file changed, 1 insertion(+)

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dinu (master)
$ git log
commit 63839fe82c2d94a4ab730324154452cc7a724ca7 (HEAD -> master)
Author: Durgesh-20 <malidurgesh276@gmail.com>
Date: Mon Oct 13 16:06:06 2025 +0530

    updated index with session info

commit 053e0fcc139fcb0221907b6192325ff25e0a9d01
Author: Durgesh-20 <malidurgesh276@gmail.com>
Date: Mon Oct 13 15:58:39 2025 +0530

    successfully commit with index

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dinu (master)
$ git remote add origin https://github.com/Durgesh-20/practice2.git

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dinu (main)
$ git branch -M master

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/dinu (master)
$ git push -u origin master
Enumerating objects: 6, done.
Counting objects: 100% (6/6), done.
Delta compression using up to 12 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (6/6), 505 bytes | 505.00 KiB/s, done.
Total 6 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: Create a pull request for 'master' on GitHub by visiting:
remote: https://github.com/Durgesh-20/practice2/pull/new/master
remote:
To https://github.com/Durgesh-20/practice2.git
 * [new branch]      master -> master
branch 'master' set up to track 'origin/master'.

```

#6)CREATE A MERGE REQUEST ON GITLAB AND REVIEW THE MERGE REQUEST

```

IMRDCOPM112@IMRDCOMP112 MINGW64 ~ (main)
$ git clone https://gitlab.com/Durgesh-20/durgu2.git
Cloning into 'durgu2'...
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
Receiving objects: 100% (3/3), done.

IMRDCOPM112@IMRDCOMP112 MINGW64 ~ (main)
$ cd durgu2

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/durgu2 (main)
$ git branch new

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/durgu2 (main)
$ git checkout new
Switched to branch 'new'

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/durgu2 (new)
$ echo "my first git repo">index.txt

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/durgu2 (new)
$ git add index.txt

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/durgu2 (new)
$ git commit -m "added index.txt"
[new 4d71f8e] added index.txt
1 file changed, 1 insertion(+)
create mode 100644 index.txt

IMRDCOPM112@IMRDCOMP112 MINGW64 ~/durgu2 (new)
$ git push origin new
info: please complete authentication in your browser...
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 12 threads
Compressing objects: 100% (2/2), done.

```

```
writing objects: 100% (3/3), 300 bytes | 300.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: To create a merge request for new, visit:
remote: https://gitlab.com/Durgesh-20/durgu2/-
remote: /merge_requests/new?merge_request%5Bsource_branch%5D=new
remote:
To https://gitlab.com/Durgesh-20/durgu2.git
* [new branch] new -> new
```

#7)TO STUDY DOCKER FILE INSTRUCTION BUILD AN IMAGE FOR A SAMPLE WEB APPLICATION USING DOCKER FILE

****Run on command prompt:-**

```
C:\Users\IMRDCOPM112>mkdir docker-webapp4
```

```
C:\Users\IMRDCOPM112>cd docker-webapp4
```

```
C:\Users\IMRDCOPM112\docker-webapp4>notepad index.html
```

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title>My first Docker Web App</title>
```

```
</head>
```

```
<body>
```

```
<h1><b>Happy Diwali</b></h1>
```

```
</body>
```

```
</html>
```

```
C:\Users\IMRDCOPM112\docker-webapp4>notepad Dockerfile
```

```
FROM nginx
```

```
COPY index.html /usr/share/nginx/html
```

```
EXPOSE 80
```

```
CMD ["nginx", "-g", "daemon off;"]
```

>> go c drive:>> users >> IMRD>> filename (ex. docker-webapp4)>> select file >>view>> extension name
file click>> rename without any extension..

```
C:\Users\IMRDCOPM112\docker-webapp4>docker build -t mywebapp4 .
```

```
C:\Users\IMRDCOPM112\docker-webapp4>docker run -d -p 8080:80 mywebapp4
```

*****RUN ON CHROME:-**

http://localhost:8080