Subject Name: Source Code

Management

Cluster: Beta



Submitted by – Devesh Gupta Roll number – 2110990428 Group – G8-B Department - CSE

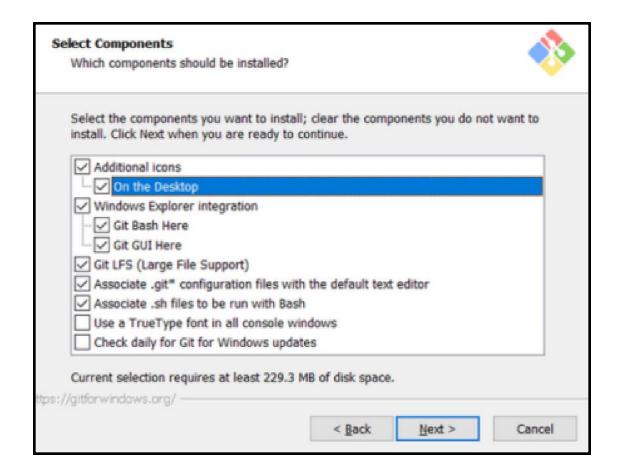
Submitted to – Monit Sir



Aim: Setting up the git client.

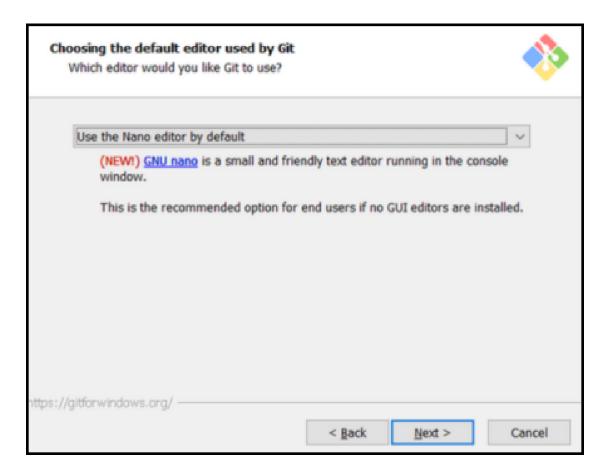
<u>Git Installation:</u> Download the Git installation program (Windows, Mac, or Linux) from <u>Git - Downloads (git-scm.com)</u>.

When running the installer, various screens appear (Windows screens shown). Generally, you can accept the default selections, except in the screens below where you do not want the default selections:In the Select Components screen, make sure Windows Explorer Integration is selected as shown:



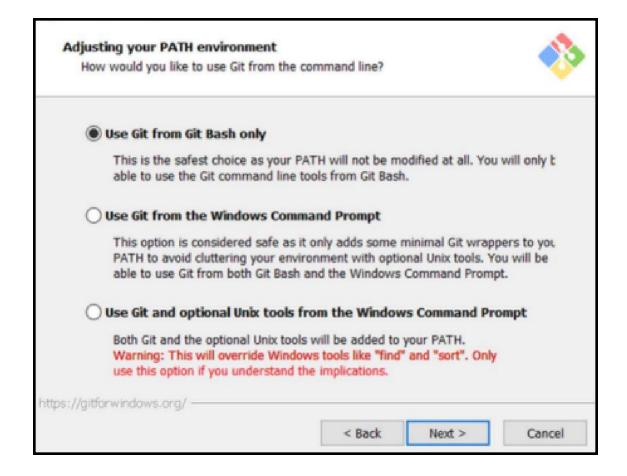
In the choosing the default editor is used by Git dialog, it is strongly recommended that you DO NOT select default VIM editor- it is challenging to learn how to use it, and there are better

modern editors available. Instead, choose Notepad++ or Nano – either of those is much easier to use. It is strongly recommended that you select Notepad++.

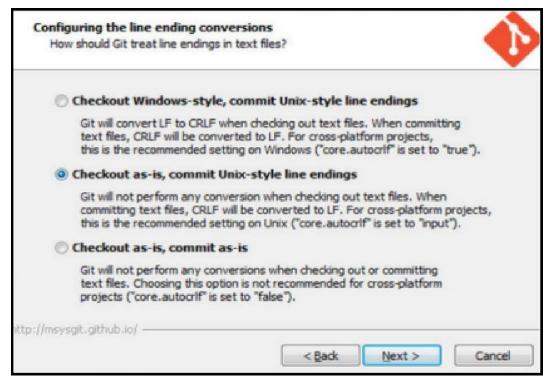


In the Adjusting your PATH screen, all three options are acceptable:

- 1. Use Git from Git Bash only: no integration, and no extra command in your command path.
- 2. Use Git from the windows Command Prompt: add flexibility you can simply run git from a windows command prompt, and is often the setting for people in industry but this does add some extra commands.
- 3. Use Git and optional Unix tools from the Windows Command Prompt: this is also a robust choice and useful if you like to use Unix like commands like grep.



In the Configuring the line ending screen, select the middle option (Checkout-as-is, commit Unix-style line endings) as shown. This helps migrate files towards the Unix-style (LF) terminators that most modern IDE's and editors support. The Windows convention (CR-LF line termination) is only important for Notepad.



Configuring Git to ignore certain files:

This part is extra important and required so that your repository does not get cluttered with garbage files.

By default, Git tracks all files in a project. Typically, this is not what you want; rather, you want Git to ignore certain files such as .bak files created by an editor or .class files created by the Java compiler. To have Git automatically ignore particular files, create a file named .gitignore (note that the filename begins with a dot) in the C:\users\name folder (where name is your MSOE login name).

NOTE: The .gitignore file must NOT have any file extension (e.g. .txt). Windows normally tries to place a file extension (.txt) on a file you create from File Explorer - and then it (by default) HIDES the file extension. To avoid this, create the file from within a useful editor (e.g.Notepad++ or UltraEdit) and save the file without a file extension).

Edit this file and add the lines below (just copy/paste them from this screen); these are patterns for files to be ignored (taken from examples provided at https://github.com/github/gitignore.)

```
#Lines (like this one) that begin with # are comments; all other lines are rules
# common build products to be ignored at MSOE
*.o
*. obj
*.class
*.exe
# common IDE-generated files and folders to ignore
workspace.xml
bin
out
.classpath
# uncomment following for courses in which Eclipse .project files are not checked
in # .project
#ignore automatically generated files created by some common applications,
operating systems
*.bak
*.log
*.1db
.DS Store*
Thumbs.d
# Any files you do not want to ignore must be specified starting with ! # For example,
if you didn't want to ignore .classpath, you'd uncomment the following rule: #
!.classpath
```

Note: You can always edit this file and add additional patterns for other types of files you might want to ignore. Note that you can also have a .gitignore files in any folder naming additional files to ignore. This is useful for project specific build products. Once Git is installed, there is some remaining custom configuration you must do. Follow the steps below:

a. From within File Explorer, right-click on any folder. A context menu appears containing the commands "Git Bash here" and "GitGUI here". These commands permit you to launch either Git client. For now, select

Git Bash here.

b. Enter the command (replacing name as appropriate) **git config -- global core.excludesfile c:/users/name/. gitignore**

This tells Git to use the .gitignore file you created in step 2

NOTE: TO avoid typing errors, copy and paste the commands shown here into the Git Bash window, using the arrow keys to edit the red text to match your information.

- c. Enter the command **git config --global user.Email "name@msoe.edu"** This links your Git activity to your email address. Without this, your commits will often show up as "unknown login". Replace name with your own MSOE email name.
- d Enter the command **git config --global user.name "Your Name"** Git usesthisto log your activity. Replace "Your Name" by your actual first and last name.
- e. Enter the command **git config --global push.**default simple This ensures that all pushes go back to the branch from which they were pulled. Otherwise pushes will go to the master branch, forcing a merge.



Aim:

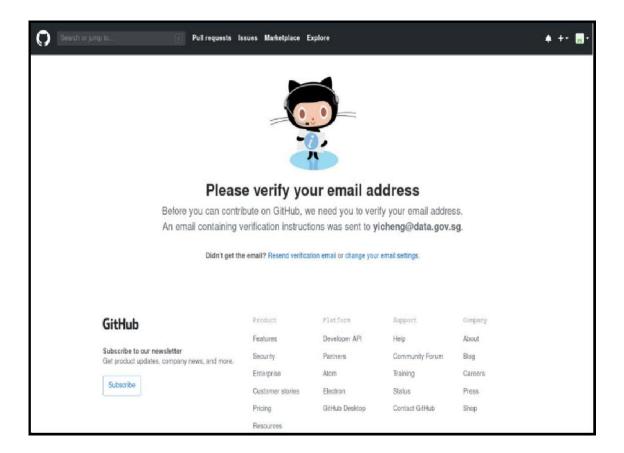
Setting up GitHub Account

The first steps in starting with GitHub are to create an account, choose a product that fits your needs best, verify your email, set up two-factor authentication, and view your profile. There are several types of accounts on GitHub. Every person who uses GitHub has their own user account, which can be part of multiple organisations and teams. Your user account is your identity on GitHub.com and represents you as an individual.

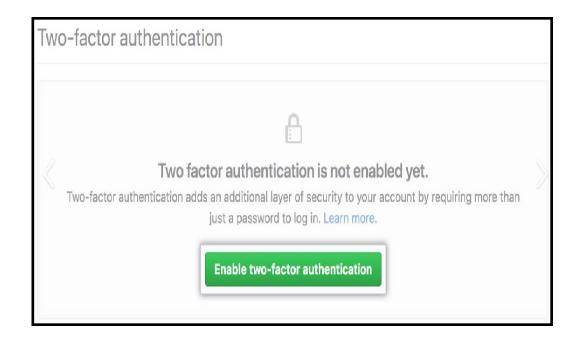
1. Creating an account: To sign up for an account on GitHub.com, navigate to https://github.com/ and follow the prompts. To keep your GitHub account secure you should use a strong and unique password.



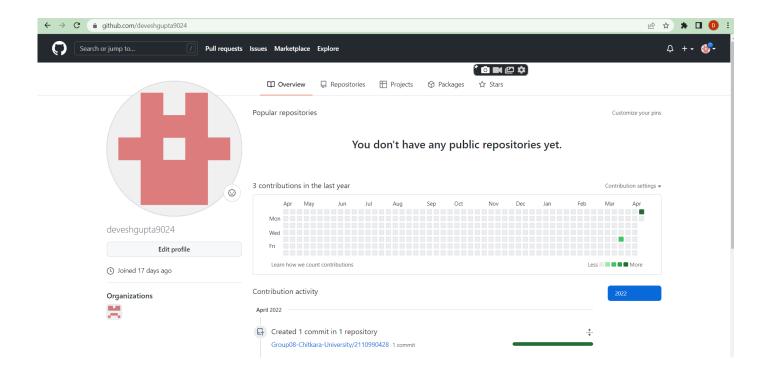
- 2. **Choosing your GitHub product:** You can choose GitHub Free or GitHub Pro to get access to different features for your personal account. You can upgrade at any time if you are unsure at first which product you want.
- 3. **Verifying your email address:** To ensure you can use all the features in your GitHub plan, verify your email address after signing up for a new account.



4. **Configuring two-factor authentication:** Two-factor authentication, or 2FA, is an extra layer of security used when logging into websites or apps.



5. Viewing your GitHub profile and contribution graph: Your GitHub profile tells people the story of your work through the repositories and gists you've pinned, the organisation memberships you've chosen to publicize, the contributions you've made, and the projects you've created





Aim: Program to generate logs

Basic Git init:

Git init command creates a new Git repository. It can be used to convert an existing, undersigned project to a Git repository or initialize a new, empty repository. Most other Git commands are not available outside of an initialize repository, so this is usually the first command you'll run ina new project.

Basic Git status:

The git status command displays the state of the working directory and the staging area. It lets you see which changes have been staged, which haven't, and which files aren't being tracked by Git. Status output does not show you any information regarding the committed project history.

Basic Git commit:

The git commit command captures a snapshot of the project's currently staged changes. Committed snapshots can be thought of as "safe" versions of a project—Git will never change them unless you explicitly ask it to. Prior to the execution of git commit, The git add command is used to promote or 'stage' changes to the project that will be stored in a commit. These two commands git commit and git add are two of themost frequently used

Basic Git add command:

The git add command adds a change in the working directory to the staging area. It tells Git that you want to include updates to a particular file in the next commit. However, git add doesn't really affect the repository in any significant way—changes are not actually recorded until you run git commit

Basic Git log

Git log command is one of the most usual commands of git. It is the most useful command for Git. Every time you need to check the history, you have to use the git log command. The basic git log command will display the most recent commits and the status of the head. It will use as

```
DELINGESTOR-JSSISSN NINOMGGA -/Desktop/SCM (master)

Sight config --global user.cmmil schozoda.he/lachtkara.edu.in

DELINGESTOR-JSSISSN NINOMGGA -/Desktop/SCM (master)

Sight config user.name

schozoda/Sapa

Unamonic yet

Changes to be committed

(use 'git and --a

Sight stabs

On woman master

On woman master

Unamonic yet

Changes to be committed

(use 'git yet

- yet yet

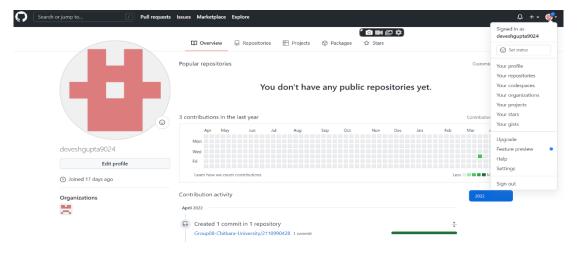
- yet yet

- yet yet

- yet yet

- ye
```

```
git congig --global user.name Devesh
10
    git config --global user.email "deveshgupta1230@gmail.com"
11
    git config --global user.name "Devesh Gupta"
    git init
13
14
    git add.
15
    git add
16
    git add.
17
    git add .
18
    ٦s
19
    git status
20
    mkdir
21
    mkdir Dev
22
    git remote
```





Aim:

Create and visualize branches in Git

How to create branches:

The main branch in git is called master branch. But we can make branches out of this main master branch. All the files present in master can be shown in branch but the files which are created in branch are not shown in master branch. We also can merge both the parent(master) and child (other branches).

- 1. For creating a new branch: git branch "name of branch"
- 2. To check how many branches we have : git branch
- 3. To change the present working branch: git checkout "name of the branch"

Visualizing Branches:

To visualize, we have to create a new file in the new branch "activity1" instead of the master branch. After this we have to do three step architecture i.e. working directory, staging area and git repository.

After this I have done the 3 Step architecture which is tracking the file, send it to stagging area and finally we can rollback to any previously saved version of this file.

After this we will change the branch from activity1 to master, but when we switch back to master branch the file we created i.e "hello" will not be there. Hence the new file will not be shown in the master branch. In this way we can create and change different branches. We can also merge the branches by using the git merge command. In this way we can create and change different branches. We can also merge the branches by using git merge command.

```
DELL@DESKTOP-JSI5681 MINGW64 ~/Desktop/SCM (master)
$ git branch
DELL@DESKTOP-JSI5681 MINGW64 ~/Desktop/SCM (master)
$ git branch activity1
DELL@DESKTOP-JSI5681 MINGW64 ~/Desktop/SCM (master)
$ git checkout activity1
Switched to branch 'activity1'
DELL@DESKTOP-JSI5681 MINGW64 ~/Desktop/SCM (activity1) $ git status
On branch activity1

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: New Text Document txt
no changes added to commit (use "git add" and/or "git commit -a")
 DELL@DESKTOP-JSI5681 MINGW64 ~/Desktop/SCM (activity1)
$ git add --a
DELL@DESKTOP-JSI5681 MINGW64 ~/Desktop/SCM (activity1)
$ git branch
DELL@DESKTOP-JSI5681 MINGW64 ~/Desktop/SCM (activity1)

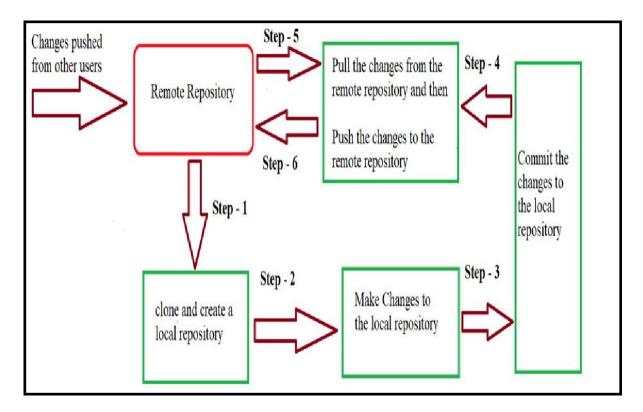
$ git commit -m"I am in actuvuty1"
[activity1 4fle419] I am in actuvuty1
1 file changed, 1 insertion(+)
 DELL@DESKTOP-JSI5681 MINGW64 ~/Desktop/SCM (activity1)
s git log
commit 4fle419fd817ee540ee496c853d59e6f0af3bd1b (HEAD -> activity1)
Author: ishayadav3499 <isha2064.be21@chitkara.edu.in>
Date: Thu Mar 31 11:07:22 2022 -0700
      I am in actuvuty1
commit 8e52366825f4e80f872178825066ed0d6a108320 (master)
Author: ishayadav3499 <isha2064.be21@chitkara.edu.in>
Date: Thu Mar 31 11:02:27 2022 -0700
       I am changing the New Text document
             Type here to search
                                                                                                  0
                                                                                                             □†
```

```
pwd
git clone https://github.com/MonitKapoor/gl
1s
ls g1
git log
cd g1
pwd
git log --oneline
1s -ah
cat first.cpp
vi first.cpp
cat first.cpp
git status
git add.
git add .
git status
git commit -m "added headings to first.cpp"
git log --oneline
git remote
git push -u origin master
pwd
cd D:
pwd
```



Aim: Git lifecycle description

Git is used in our day-to-day work, we use Git for keeping a track of our files, working in a collaboration with our team, to go back to our previous code versions if we face some error. Git helps us in many ways. Let us look at the Lifecycle description that git has and understand more about its life cycle. Let us see some of the basic steps that we have to follow while working with Git-

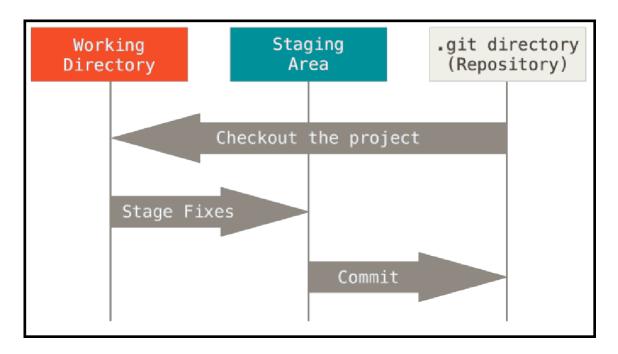


- Step 1- We first clone any of the code residing in the remote repository to make our won local repository.
- Step 2- We edit the files that we have cloned in our local repository and make the necessary changes in it.
- <u>Step 3</u>- We commit our changes by first adding them to our staging area and committing them with a commit message.

- Step 4 and Step 5- We first check whether there are any of the changes done in the remote repository by some other users and we first pull that changes.
- **Step 6-** If there are no changes we push our changes to the remote repository and we are done with our work.

of 16

When a directory is made a git repository, there are mainly 3 states which make the essence of Git version Control System. The three states are



1. Working Directory

Whenever we want to initialize aur local project directory to make a Git repository, we use the git init command. After this command, git becomes aware of the files in the project although it does not track the files yet. The files are further tracked in the staging area.

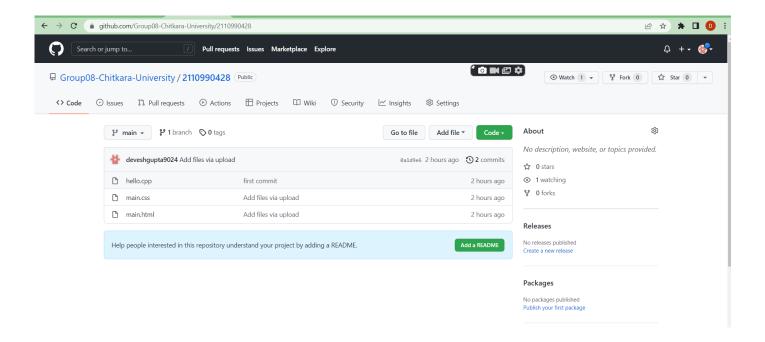
2. Staging Area

Now, to track files the different versions of our files we use the command git add. git add command copies the version of your file from your working directory to the staging area. We can, however, choose which files we need to add to the staging area because in our working directory there are some files that we don't want to get tracked, examples include node modules, temporary files, etc.

Indexing in Git is the one that helps Git in understanding which files need to be added or sent. You can find your staging area in the .git folder inside the index file. git add<filename> git add.

3. Git Directory:

Now since we have all the files that are to be tracked and are ready in the staging area, we are ready to commit aur files using the git commit command. Commit helps us in keeping the track of the metadata of the files in our staging area. We specify every commit with a message which tells what the commit is about. Git preserves the information or the metadata of the files that were committed in a Git Directory which helps Git in tracking files basically it preserves the photocopy of the committed files. Commit also stores the name of the author who did the commit, files that are committed, and the date at which they are committed along with the commit message. git commit -m <Message>



Subject Name: Source Code Management

Subject Code: **CS181**

Cluster: Beta

Department: CSE



Submitted
By:Devesh
Gupta
2110990428
G08

Submitted To: Monit kapoor

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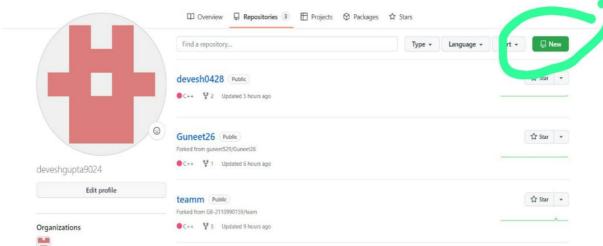
Experiment No. 06

Aim: Add collaborators on Github Repo

Theory:

1. Create a New Repository.

A repository is like a folder for your project. You can have any number of public and private repositories in your user account. Repositories can contain folders and files, images, videos, spreadsheets, and data sets, as well as the revision history for all files in the repository. For more information, see "About repositories."



When

you create a new repository, you should initialize the repository with a READMEfile to let people know about your project. For more information, see "Creating a new repository."

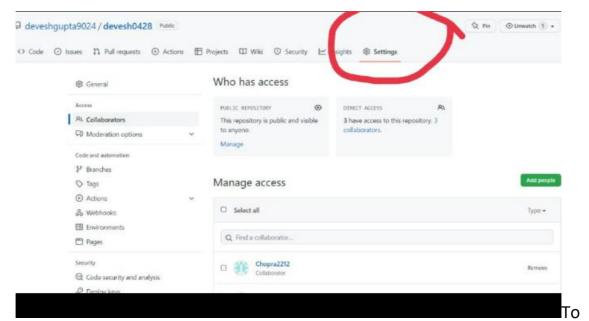
2. Now Copy the HTTP link of your repo and paste it it on your 'Git CLI', and merge the local repo in remote repo

```
leves@DESKTOP-ICECOMB MINGW64 /d/scm (master)
$ git config user.name
deveshgupta9024
 deves@DESKTOP-ICECOMB MINGW64 /d/scm (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)

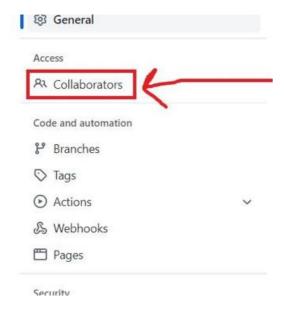
(use "git restore <file>..." to discard changes in working directory)
Untracked files:
   (use "git add <file>..." to include in what will be committed)
no changes added to commit (use "git add" and/or "git commit -a")
deves@DESKTOP-ICECOMB MINGW64 /d/scm (master)
$ git add primefactor.cpp
deves@DESKTOP-ICECOMB MINGW64 /d/scm (master)
$ git commit -m "first commit"
[master 4d7ae4a] first commit
1 file changed, 1 insertion(+)
 deves@DESKTOP-ICECOMB MINGW64 /d/scm (master)
$ git push -u origin master
remote: Repository not found.
fatal: repository 'https://github.com/deveshgupta9024/devesh9024.git/' not found
deves@DESKTOP-ICECOMB MINGw64 /d/scm (master)
$ git remote set-url origin master https://github.com/deveshgupta9024/devesh0428.git
fatal: No such URL found: https://github.com/deveshgupta9024/devesh0428.git
deves@DESKTOP-ICECOMB MINGw64 /d/scm (master)
$ git remote add origin https://github.com/deveshgupta9024/devesh0428.git
error: remote origin already exists.
 deves@DESKTOP-ICECOMB MIN
                                    64 /d/scm (master)
$ git remote set-url origin https://github.com/deveshgupta9024/devesh0428.git
 deves@DESKTOP-ICECOMB MINGW64 /d/scm (master)
$ git push -u origin master
Enumerating objects: 6, done.
# [new branch] master -> master
branch 'master' set up to track 'origin/master'.
```

3. Go to Collaborators in Repo Setting, Add the username or email of Collaborator you want to add in your Repo.



add members to your repository, open your repository and select settings option in the navigation bar.

• Click on Collaborators option under the access tab.



- After clicking on collaborators GitHub asks you to enter your password to confirm the access to the repository.
- After entering the password you can manage access and add/remove team members to your project.
- To add members click on the add people option and search the id of your respective team member.





@guneet529 has invited you to collaborate on the guneet529/Guneet26 repository

You can accept or decline this invitation. You can also head over to https://github.com/guneet529/Guneet26 to check out the repository or visit @guneet529 to learn a bit more about them.

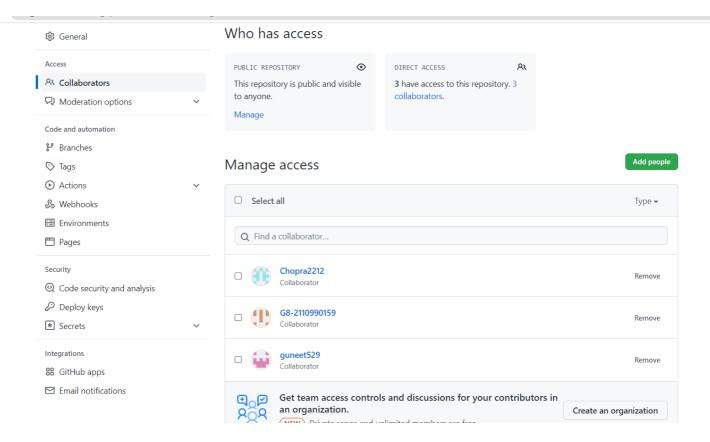
This invitation will expire in 7 days.

View invitation

Note: This invitation was intended for <u>devesh0428.be21@chitkara.edu.in</u>. If you were not expecting this invitation, you can ignore this email. If @guneet529 is sending you too many emails, you can block them or report abuse.

Invitation Mail is sent to the Collaborator, the collaborator has to accept this Invitation.

Now Collaborator has now access to the this Repo.



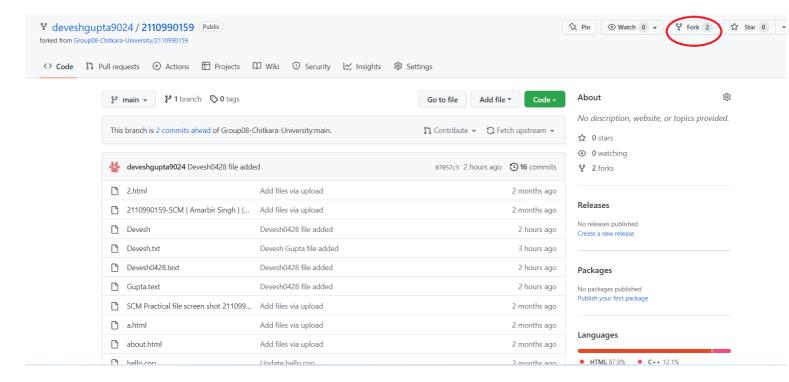
Experiment No. 07

Aim: Fork and Commit

Theory:

Fork:- A Fork is copy of a repository . Forking a repository allows you to freely experiment with changes without affecting the original Project.

1. To fork a repository first thing you need to do is, sign in to your GitHub account and then you came to the repository you want to fork, so here for demo purpose am using panda repository.



2. Click on the **Fork** button on right upside corner. Then it will ask to create a new fork, add description if you want and then click on create fork.

No more forks can be created. These forks already exist:

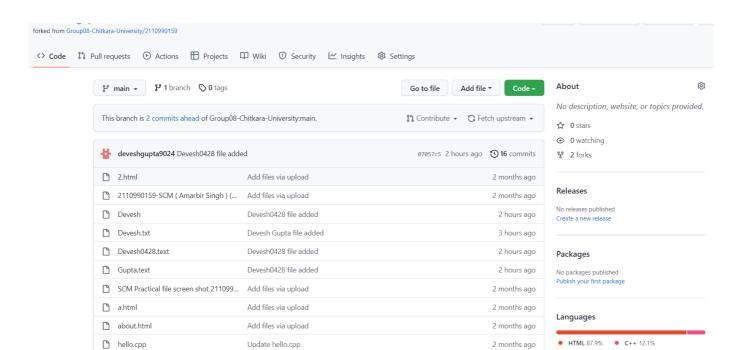
♀ Group08-Chitkara-University/2110990159

Forks

View all existing forks V deveshgupta9024 / 2110990159 Public forked from Group08-Chitkara-University/2110990159 **11** Pull requests Actions Wiki Security Settings <> Code ✓ Insights Group08-Chitkara-University / 2110990159 Pulse 4 deveshgupta9024 / 2110990159 Contributors (I) G8-2110990159 / 2110990159 Community Traffic Commits Code frequency Dependency graph Network

Note – actually I forgot to take screen shot that time so , now I am posting after fork.

3. Now you will have a copy of the repo you have forked from other user. Now you can do any modification you want without making changes to main source code.



2 months ago

Add files via upload

Add files via unload

javascript.html

「¶ n html

4. Now we will clone the forked repo to our pc.

```
deves@DESKTOP-ICECOMB MINGW64 /d/scm (master)

$ git clone "https://github.com/deveshgupta9024/2110990159.git"
Cloning into '2110990159'...
remote: Enumerating objects: 43, done.
remote: Counting objects: 100% (43/43), done.
remote: Compressing objects: 100% (41/41), done.
remote: Total 43 (delta 15), reused 3 (delta 0), pack-reused 0
Receiving objects: 100% (43/43), 6.03 MiB | 4.62 MiB/s, done.
Resolving deltas: 100% (15/15), done.
```

5. Now Open the file make changes in it and commit it and push it to remote.

```
deves@DESKTOP-ICECOMB MINGW64 /d/scm/2110990159 (main)
$ git config user-email
devesh0428.be21@chitkara.edu.in

deves@DESKTOP-ICECOMB MINGW64 /d/scm/2110990159 (main)
$ touch Devesh0428.text

deves@DESKTOP-ICECOMB MINGW64 /d/scm/2110990159 (main)
$ git add.
git: 'add.' is not a git command. See 'git --help'.

The most similar command is
    add

deves@DESKTOP-ICECOMB MINGW64 /d/scm/2110990159 (main)
$ git add .

deves@DESKTOP-ICECOMB MINGW64 /d/scm/2110990159 (main)
$ git add .

deves@DESKTOP-ICECOMB MINGW64 /d/scm/2110990159 (main)
$ git commit -m 'Devesh0428 file added'
    imain 07057c5 | Devesh0428 file added added'
    ifles changed, 0 insertions(+), 0 deletions(-)
    create mode 100644 Devesh
    create mode 100644 Devesh devesh
    create mode 100644 Devesh devesh deves deves@DESKTOP-ICECOMB MINGW64 /d/scm/2110990159 (main)
$ git push
    Enumerating objects: 3, done.
    Counting objects: 100% (3/3), done.
    Delta compression using up to 8 threads
    Compressing objects: 100% (2/2), done.
    Writing objects: 100% (2/2), 294 bytes | 294.00 KiB/s, done.
    Total 2 (delta 1), reused 0 (delta 0), pack-reused 0
    remote: Resolving deltas: 100% (1/1), completed with 1 local object.
    To https://github.com/deveshuptap024/2110990159.git
    zbd5bbf.07057c5 main -> main
```

6. Now you can see your commit in the github the commit is only reflected to your forked repository.





deveshgupta9024 Devesh0428 file added

07057c5 1 minute ago 🖰 16 commits

Experiment No. 08

Aim: Merge and Resolve Conflicts

Theory:

1. Do changes in master branch and commit those change. And checkout to different branch and again do changes and commit it. Now checkout to master branch and merge that branch in master.

COMMIT IN MASTER BRANCH

COMMIT IN DEMO-BRANCH BRANCH

Now try to merge it will give Conflicts Error Use Vs code to solve the conflict

```
EXPLORER ... File.txt / X

STIDEMO-BRA... FILE OF OF File.txt

File.txt

Accept Current Change | Accept Both Changes | Compare Changes

Accept Current Change | Accept Both Changes | Compare Changes

Accept Current Change | Accept Both Changes | Compare Changes

Accept Current Change | Accept Both Changes | Compare Changes

Accept Current Change | Accept Both Changes | Compare Changes

Accept Current Change | Accept Both Changes | Compare Changes

Accept Current Change | Accept Both Changes | Compare Changes

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Accept Current Change | Accept Both Changes | Compare Changes

Accept Current Change | Accept Both Changes | Compare Changes

Accept Current Change | Accept Both Changes | Compare Changes

Accept Current Change | Accept Both Changes | Compare Changes

Accept Current Change | Accept Both Changes | Compare Changes

Accept Current Change | Accept Both Changes | Compare Ch
```

```
Sigit merge demo-branch
Auto-merging file1.txt
CONFLICT (add/add): Merge conflict in file1.txt
Automatic merge failed; fix conflicts and then commit the result.
```

Experiment No. 09

Aim: Reset and Revert

Theory:

AIM: RESET and REVERT While Working with Git in certain situations we want to undo changes in the working area or index area, sometimes remove commits locally or remotely and we need to reverse those changes. There are 3 different ways in which we can undo the changes in our repository, these are git checkout, git reset, and git revert. Git checkout and git reset in fact can be used to manipulate commits or individual files. These commands can be confusing so it's important to find out the difference between them and to know which command should be used at a particular point of time.

Let us create a file abcd.txt and "Jupyter " written inside it.

We can see that we have done a single commit and the text document that has been committed with "Python" in it. These updates are currently in the working area and to see them we will see those using git status.

```
deves@DESKTOP-ICECOMB MINGW64 /d/takk1.2 (master)
git add .

deves@DESKTOP-ICECOMB MINGW64 /d/takk1.2 (master)
git commit -m "first text added"
[master (root-commit) d8ab32d] first text added
1 file changed, 1 insertion(+)
create mode 100644 abcd.txt

deves@DESKTOP-ICECOMB MINGW64 /d/takk1.2 (master)
git status
On branch master
nothing to commit, working tree clean

deves@DESKTOP-ICECOMB MINGW64 /d/takk1.2 (master)
S On branch master
bash: On: command not found

deves@DESKTOP-ICECOMB MINGW64 /d/takk1.2 (master)
S On command not found
```

Now we have a change "java" which is untracked in our working repository and we need to discard this change. So, the command that we should use here is

Git checkout

git checkout is used to discard the changes in the working repository. git checkout When we write git checkout command and see the status of our git repository and also the text document we can see that our changes are being discarded from the working directory and we are again back to the test document that we had before

```
In 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: abcd.txt

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

deves@DESKTOP-ICECOMB MINGW64 /d/takk1.2 (master)

cat abcd.txt

Jupyter

clipse

deves@DESKTOP-ICECOMB MINGW64 /d/takk1.2 (master)
```

We want to unstage the file and the command that we would be using to unstage our file is –

Git reset

git reset is used when we want to unstage a file and bring our changes back to the working directory. git reset can also be used to remove commits from the local repository git reset HEAD

Whenever we unstage a file, all the changes are kept in the working area

```
SKTOP-ICECOMB MINGW64 /d/takk1.2 (master)
 git add abcd.txt
leves@DESKTOP-ICECOMB MINGW64 /d/takk1.2 (master)
 git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
                     abcd.txt
        modified:
deves@DESKTOP-ICECOMB MINGW64 /d/takk1.2 (master)
$ git reset HEAD abcd.txt
Unstaged changes after reset:
        abcd.txt
leves@DESKTOP-ICECOMB MINGW64 /d/takk1.2 (master)
 git ststus
giť: 'ststus' is not a git command. See 'git --help'.
The most similar command is
        status
deves@DESKTOP-ICECOMB MINGW64 /d/takk1.2 (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)
no changes added to commit (use "git add" and/or "git commit -a")
deves@DESKTOP-ICECOMB MINGW64 /d/takk1.2 (master)
```

We are back to the working directory, where our changes are present but the file is now unstaged. Now there are also some commits that we don't want to get committed and we want to remove them from our local repository. To see how to remove the commit from our local repository let's stage and commit the changes that we just did and then remove that commit We have 2 commits now, with the latest being the Added "another programming lang" commit which we are going to remove. The command that we would be using now is

Git reset HEAD~1: Points to be noted -

HEAD~1 here means that we are going to remove the topmost commit or the latest commit that we have done.

We cannot remove a specific commit with the help of git reset, for example: we cannot say that we want to remove the second commit or the third commit, we can only remove latest commit or latest 2 commits ... latest N commits. (HEAD~n) [n here means n recent commits that needs to be deleted].

```
git: 'add.' is not a git command. See 'git --help'.
The most similar command is
          add
deves@DESKTOP-ICECOMB MINGW64 /d/takk1.2 (master)
$ git commit -m "third text added"
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:
no changes added to commit (use "git add" and/or "git commit -a")
deves@DESKTOP-ICECOMB MINGW64 /d/takk1.2 (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: abcd.txt
no changes added to commit (use "git add" and/or "git commit -a")
deves@DESKTOP-ICECOMB MINGW64 /d/takk1.2 (master)
$ git reset HEAD~1
fatal: ambiguous argument 'HEAD~1': unknown revision or path not in the working tree.
Use '--' to separate paths from revisions, like this:
 git <command> [<revision>...] -- [<file>...]
deves@DESKTOP-ICECOMB MINGW64 /d/takk1.2 (master)
$ git reset Head 1
Unstaged changes after reset:
          abcd.txt
deves@DESKTOP-ICECOMB MINGW64 /d/takk1.2 (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: abcd.txt
no changes added to commit (use "git add" and/or "git commit -a")
deves@DESKTOP-ICECOMB MINGW64 /d/takk1.2 (master)
```

After using the above command we can see that our commit is being deleted and also our file is again unstaged and is back to the working directory. There are different ways in which git reset can actually keep your changes.

git reset --soft HEAD~1 - This command will remove the commit but would not unstage a file. Our changes still would be in the staging area.

```
$ 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)
no changes added to commit (use "git add" and/or "git commit -a")
leves@DESKTOP-ICECOMB MINGW64 /d/takk1.2 (master)
 git add .
deves@DESKTOP-ICECOMB MINGW64 /d/takk1.2 (master)
$ git commit -m "testing soft reset"
[master 4a5eaf8] testing soft reset
1 file changed, 2 insertions(+), 1 deletion(-)
deves@DESKTOP-ICECOMB MINGW64 /d/takk1.2 (master)
$ git status
On branch master
nothing to commit, working tree clean
deves@DESKTOP-ICECOMB MINGW64 /d/takk1.2 (master)
$ git reset --soft HEAD 1
fatal: Cannot do soft reset with paths.
leves@DESKTOP-ICECOMB MINGW64 /d/takk1.2 (master)
$ git reset --soft HEAD-1
fatal: ambiguous argument 'HEAD-1': unknown revision or path not in the
Use '--' to separate paths from revisions, like this:
git <command> [<revision>...] -- [<file>...]'
deves@DESKTOP-ICECOMB MINGW64 /d/takk1.2 (master)
$ git reset --soft HEAD~1
deves@DESKTOP-ICECOMB MINGW64 /d/takk1.2 (master)
$ git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:
leves@DESKTOP-ICECOMB MINGW64 /d/takk1.2 (master)
```

git reset --mixed HEAD~1 or git reset HEAD~1 - This is the default command that we have used in the above example which removes the commit as well as unstages the file and our changes are stored in the working directory

git reset --hard HEAD~1 - This command removes the commit as well as the changes from your working directory. This command can also be called destructive command as we would not be able to get back the changes so be careful while using this command.

```
deves@DESKTOP-ICECOMB MINGW64 /d/takk1.2 (master)

$ git reset --hard HEAD
HEAD is now at d8ab32d first text added

deves@DESKTOP-ICECOMB MINGW64 /d/takk1.2 (master)

$ cat abcd.txt
Jupyter
deves@DESKTOP-ICECOMB MINGW64 /d/takk1.2 (master)

$ |
```

Points to keep in mind while using git reset command - If our commits are not published to remote repository, then we can use git reset.

Use git reset only for removing commits that are present in our local directory and not in remote directory.

We cannot remove a specific commit with the help of git reset, for eg: we cannot say that we want to remove the second commit or the third commit, we can only remove latest commit or latest 2 commits ... latest N commits. (HEAD~n) [n here means n recent commits that needs to be deleted]

We just discussed above that the git reset command cannot be used to delete commits from the remote repository, then how do we remove the unwanted commits from the remote repository The command that we use here is

Git revert

git revert is used to remove the commits from the remote repository. Since now our changes are in the working directory, let's add those changes to the staging area and commit them.

Now let's push our changes to the remote repository.

Now we want to delete the commit that we just added to the remote repository. We could have used the git reset command but that would have deleted the commit just from the local repository and not the remote repository. If we do this then we would get conflict that the remote commit is not present locally. So, we do not use git reset here. The best we can use here is git revert.

Things to remember – • Using git revert we can undo any commit, not like git reset where we could just remove "n" recent commits. Now let's first understand what git revert does, git revert removes the commit that we have done but adds one more commit which tells us that the revert has been done. Let's look at the example –

Note: If you see the lines as we got after the git revert command, just visit your default text editor for git and commit the message from there, or it could directly take to you your default editor. We want a message here because when using git revert, it does not delete the commit instead makes a new commit that contains the removed changes from the commit. We can see that the new commit is being added.

However since this commit is in local repository so we need to do git push so that our remote repository also notices that the change has been done. And as we can see we have a new commit in our remote repository and C++ which we added in our 2nd commit is being removed from the local as well as the remote repositor

Project SCM

Submitted by:-**Devesh Gupta and team**2110990428

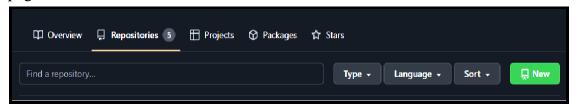
Submitted to:- **Dr.Monit Kapoor**

Create a distributed Repository and add members in project team

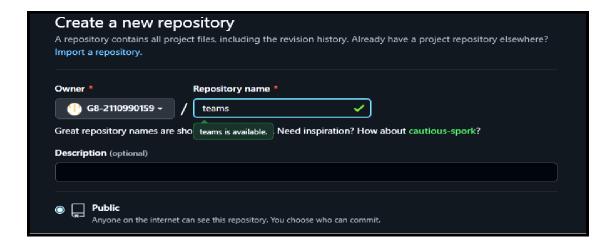
YOU HAVE TO MAKE A REPOSITORY IN GITHUB.

Step1) CREATING REPOSITORY IN GITHUB

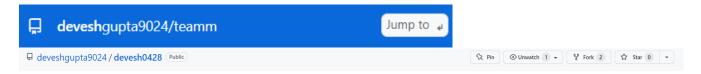
The page looks like as: -



By clicking on new you are able to make a new repository.



Write the repository name and click on next.



Your GITHUB Repository has been created.

Step2) GIT ADDING REMOTE BRANCH

Git stores a branch as a reference to a commit, and a branch represents the tip of a series of commits.

You Can do it by typing: - 1.git branch -M main

```
deves@DESKTOP-ICECOMB MINGW64 ~/team (feature)
§ git branch -a
feature
  remotes/origin/HEAD -> origin/main
  remotes/origin/feature
  remotes/origin/main
deves@DESKTOP-ICECOMB MINGW64 ~/team (feature)
S git checkout feature
Already on 'feature'
Your branch is up to date with 'origin/feature'.
deves@DESKTOP-ICECOMB MINGW64 ~/team (feature)
§ git log --oneline
Pe46fe8 (HEAD -> feature, origin/feature) commit : Modifying feature modifying
d982lcc Committing the Member function additional|Hello.cpp
da3c2c7 committing the member function addition|hello.cpp
b7e6ff0 (origin/main, origin/HEAD, main) fifth commit
5a774ca fourth commit
304c878 third commit
594ec48 Second commit
e0808f3 First commit
deves@DESKTOP-ICECOMB MINGW64 ~/team (feature)
g1/ hello.ccp hello.cpp
deves@DESKTOP-ICECOMB MINGW64 ~/team (feature)
5 vi hello.cpp
deves@DESKTOP-ICECOMB MINGW64 ~/team (feature)
s git add .
deves@DESKTOP-ICECOMB MINGW64 ~/team (feature)
§ git commit -m " commit : Modifying feature modifying "
[feature f4e98d4] commit : Modifying feature modifying
1 file changed, 4 insertions(+)
deves@DESKTOP-ICECOMB MINGW64 ~/team (feature)
§ git config user.email
devesh0428.be21@chitkara.edu.in
deves@DESKTOP-ICECOMB MINGW64 ~/team (feature)
S git push -u origin feature
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), 318 bytes | 318.00 KiB/s, done.
Total 3 (delta 2), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
To https://github.com/deveshgupta9024/team
   9e46fe8..f4e98d4 feature -> feature
branch 'feature' set up to track 'origin/feature'.
```

Step3) GIT ADDING REMOTE ORIGIN

Is a Git repository that's hosted on the Internet You Can do it by typing: -1.git remote add origin The page looks like as: -

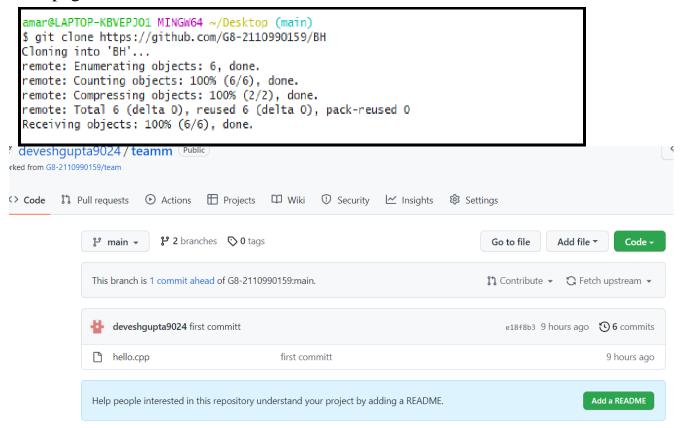
```
amar@LAPTOP-KBVEPJO1 MINGW64 /d/g (master)
$ git remote add origin https://github.com/Group08-Chitkara-University
/2110990159.git
```

Step4) GIT CLONE

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

You Can do it by typing: - 1.git clone url

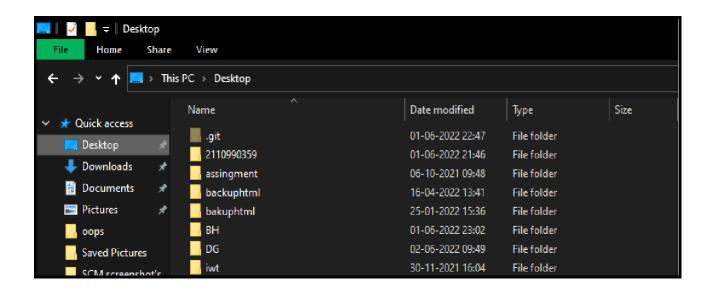
The page looks like as: -



amar@LAPTOP-KBVEPJO1 MINGW64 ~/Desktop (main) \$ git clone https://github.com/G8-2110990159/DG Cloning into 'DG'... remote: Enumerating objects: 6, done. remote: Counting objects: 100% (6/6), done. remote: Compressing objects: 100% (3/3), done. remote: Total 6 (delta 1), reused 6 (delta 1), pack-reused 0 Receiving objects: 100% (6/6), done. Resolving deltas: 100% (1/1), done.

1.Document in your system

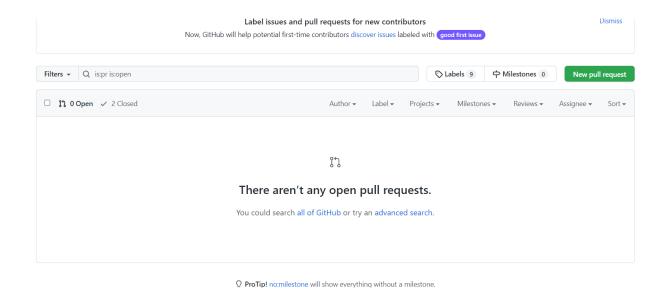
The page looks like as: -



2. Document in your GITHUB Repository

The page looks like as: -





3 ○ ○ ○ ○ ○ ○ ○ ○ ○





@guneet529 has invited you to collaborate on the guneet529/Guneet26 repository

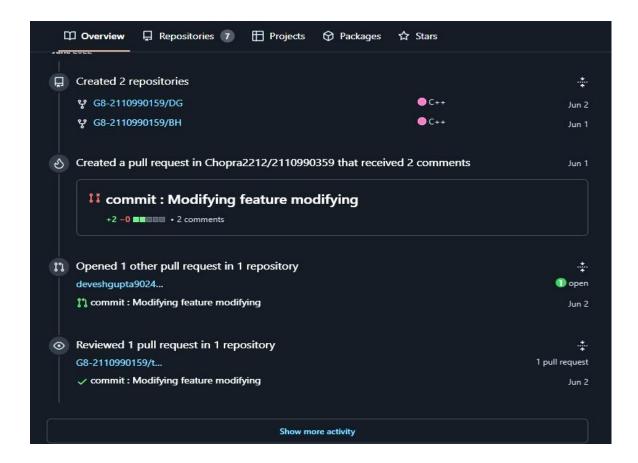
You can accept or decline this invitation. You can also head over to https://github.com/guneet529/Guneet26 to check out the repository or visit @guneet529 to learn a bit more about them.

This invitation will expire in 7 days.

View invitation

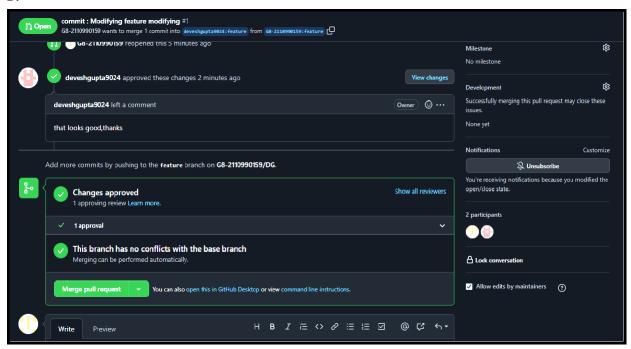
Note: This invitation was intended for devesh0428.be21@chitkara.edu.in. If you were not expecting this invitation, you can ignore this email. If @guneet529 is sending you too many

maile you can block them as senest abuse

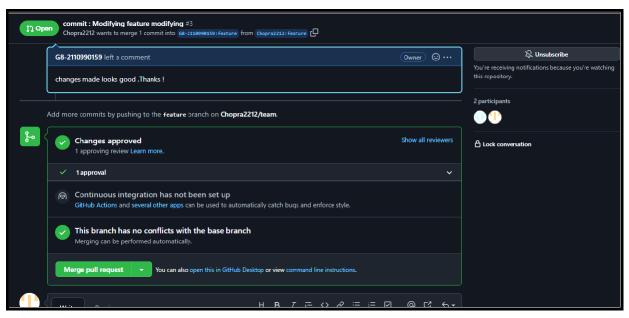


Step of working with members:

1.



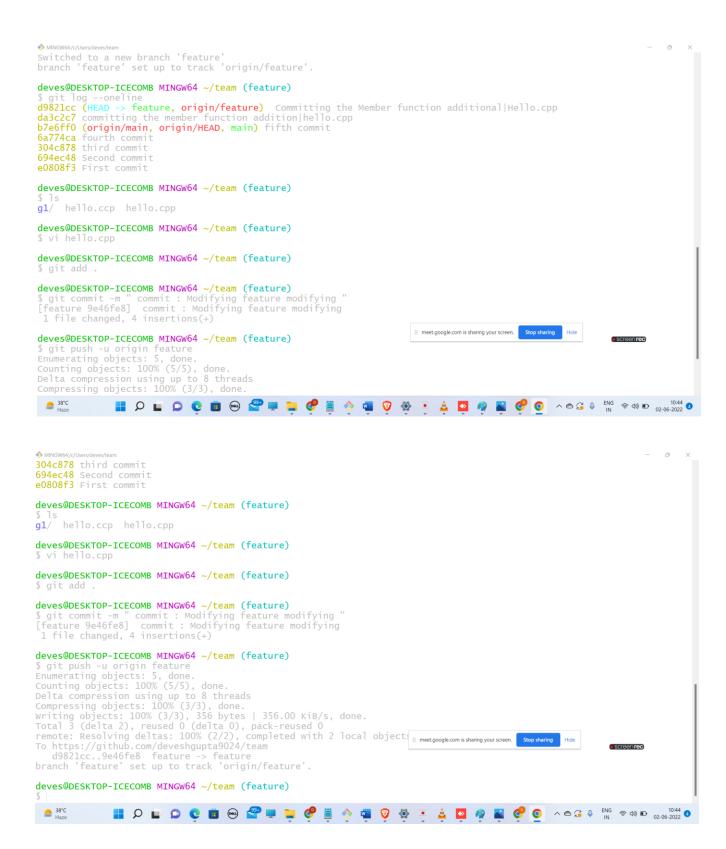
2.



Showing steps on git Bash:

```
$ cd team/
deves@DESKTOP-ICECOMB MINGW64 ~/team (main)
hello.cpp
deves@DESKTOP-ICECOMB MINGW64 ~/team (main)
$ git branch
deves@DESKTOP-ICECOMB MINGW64 ~/team (main)
$ git log --oneline
b7e6ff0 (HEAD -> main, origin/main, origin/HEAD) fifth commit
6a774ca fourth commit
304c878 third commit
694ec48 Second commit
e0808f3 First commit
deves@DESKTOP-ICECOMB MINGW64 ~/team (main)
$ git branch -a
  main
  remotes/origin/HEAD -> origin/main
  remotes/origin/feature
  remotes/origin/main
deves@DESKTOP-ICECOMB MINGW64 ~/team (main)
$ git checkout feature
Switched to a new branch 'feature'
branch 'feature' set up to track 'origin/feature'.
                                                                              || meet.google.com is sharing your screen. Stop sharing
deves@DESKTOP-ICECOMB MINGW64 ~/team (feature)
git log --oneline
d982lcc (HEAD -> feature, origin/feature) Committing the Member function additional|Hello.cpp
da3c2c7 committing the member function addition|hello.cpp
                                                                                       🔡 🔎 📦 👂 🤨 📵 😂 📮 🦫 🧃
 ≥ 38°C
Haze
```

1.



You can view, comment on, or merge this pull request online at:

https://github.com/deveshgupta9024/devesh0428/pull/2

Commit Summary

<u>9e096bd</u> comittt

File Changes (1 file)

• M primefactor.cpp (2)

Patch Links:

- https://github.com/deveshgupta9024/devesh0428/pull/2.patch
- https://github.com/deveshgupta9024/devesh0428/pull/2.diff

Reply to this email directly, view it on GitHub, or unsubscribe. You are receiving this because you are subscribed to this thread.

Re: [G8-2110990159/team] first committ (PR #4) External Inbox ×







G8-2110990159 <notifications@github.com> Unsubscribe to G8-2110990159/team, me, Author ▼

@G8-2110990159 approved this pull request.

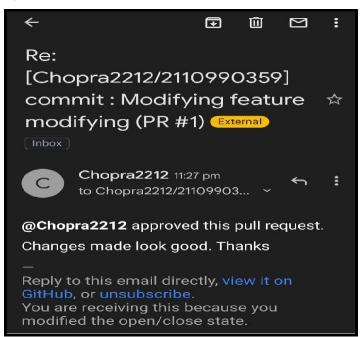
that look good thanks

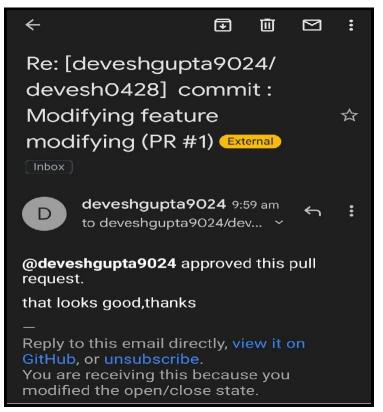
Reply to this email directly, view it on GitHub, or unsubscribe. You are receiving this because you authored the thread.



Approve mail recived:

1.





comittt #2

