

NAME : Harisha A

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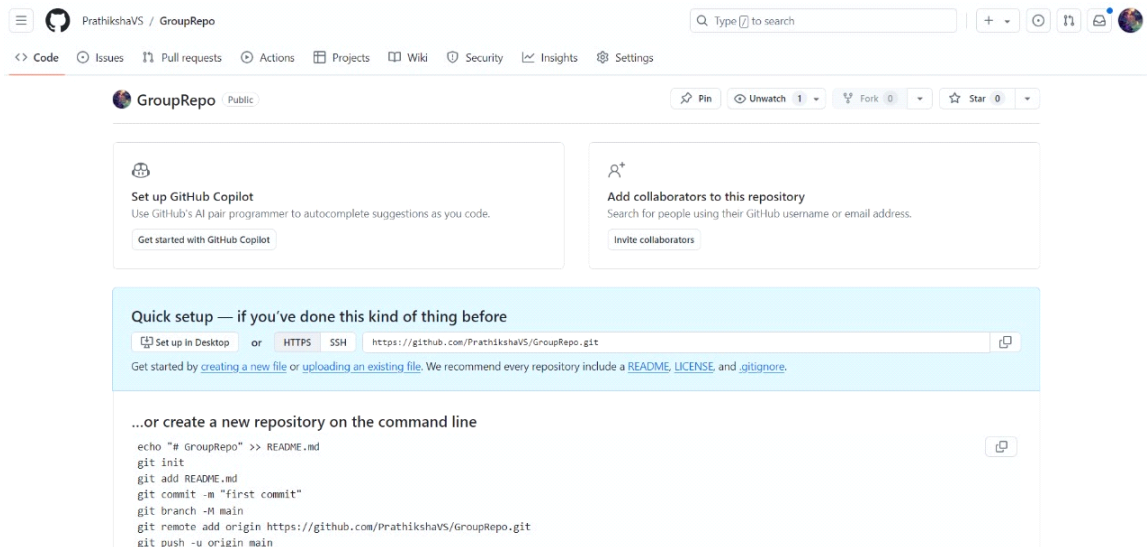
GITHUB : <https://github.com/Harisha08>

Exercise 3

For this task, you will work in a small group. Between 2 and 4 people is

Main Task

1. First, one person in the group should create a public repository using their GitHub account.



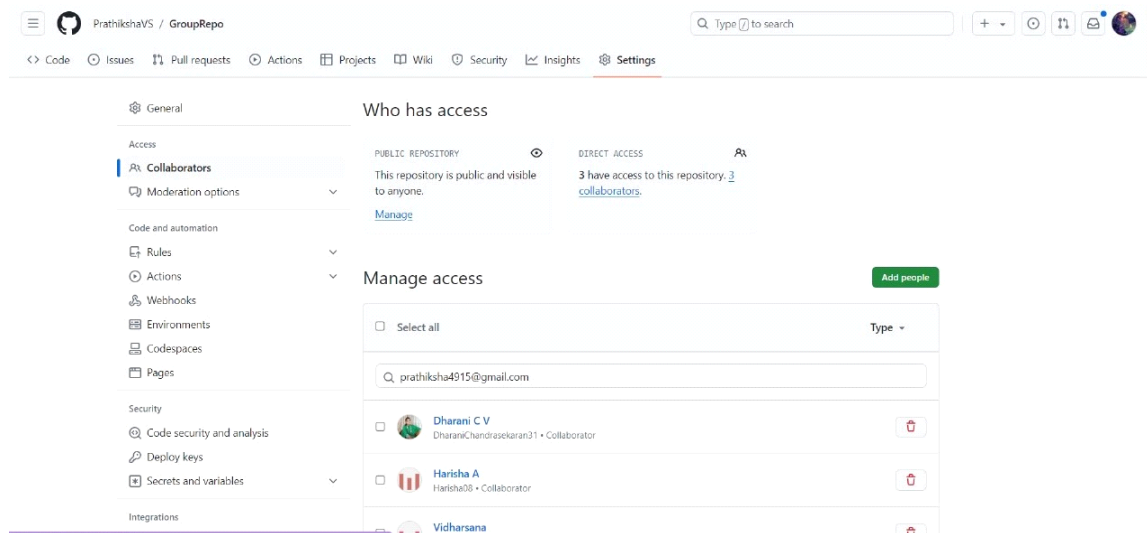
2. This same person should then follow the instructions from GitHub to add a remote, and then push their repository. Do not forget the `-u` flag, as suggested by GitHub!

```
D:\Fullstack\GroupRepo>git remote add origin https://github.com/PrathikshaVS/GroupRepo.git

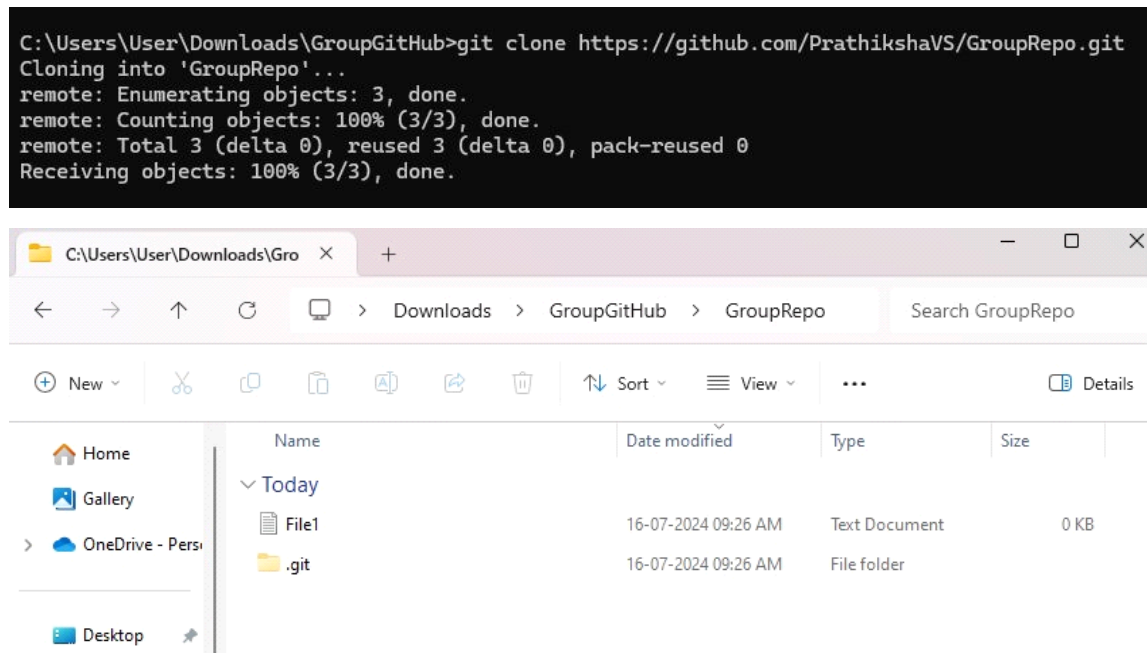
D:\Fullstack\GroupRepo>git push -u origin master
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Writing objects: 100% (3/3), 218 bytes | 109.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/PrathikshaVS/GroupRepo.git
* [new branch]      master -> master
branch 'master' set up to track 'origin/master'.
```

```
D:\Fullstack\GroupRepo>
```

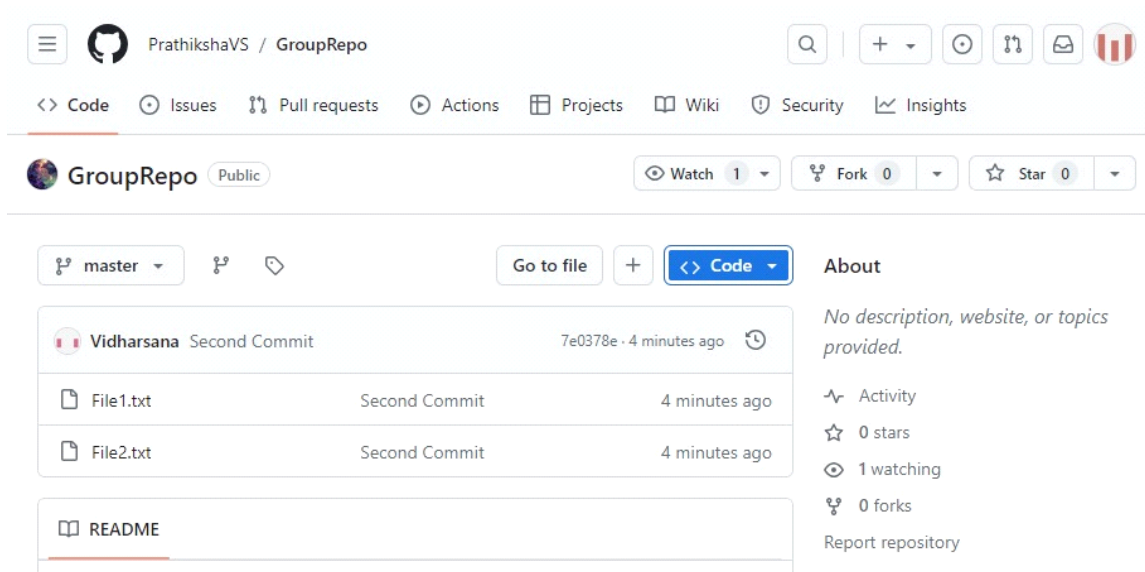
3. All of the other members of the group should then be added as collaborators, so they can commit to the repository also.



4. Next, everyone else in the group should clone the repository from GitHub. Verify that the context of the repository is what is expected.



5. One of the group members who just cloned should now make a local commit, then push it. Everyone should verify that when they pull, that commit is added to their local repository (use git log to check for it).



```
C:\Users\User\Downloads\GroupGitHub>git pull https://github.com/PrathikshaVS/GroupRepo.git master
remote: Enumerating objects: 6, done.
remote: Counting objects: 100% (6/6), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 6 (delta 0), reused 6 (delta 0), pack-reused 0
Unpacking objects: 100% (6/6), 457 bytes | 38.00 KiB/s, done.
From https://github.com/PrathikshaVS/GroupRepo
* branch                master       -> FETCH_HEAD
```

6. Look at each other's git log output. Notice how the SHA-1 is the same for a given commit across every copy of the repository. Why is this important?

```
C:\Users\User\Downloads\GroupGitHub>git pull https://github.com/PrathikshaVS/GroupRepo.git master
remote: Enumerating objects: 6, done.
remote: Counting objects: 100% (6/6), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 6 (delta 0), reused 6 (delta 0), pack-reused 0
Unpacking objects: 100% (6/6), 457 bytes | 38.00 KiB/s, done.
From https://github.com/PrathikshaVS/GroupRepo
* branch                master       -> FETCH_HEAD
```

7. Two members of the group should now make a commit locally, and race to push it. To keep things simple, be sure to edit different files. What happens to the runner-up?

```

C:\Users\User\Downloads\GroupGitHub\GroupRepo>git add File2.txt

C:\Users\User\Downloads\GroupGitHub\GroupRepo>git commit -m "Fifth commit"
[master 8e8a80c] Fifth commit
 1 file changed, 2 insertions(+), 1 deletion(-)

C:\Users\User\Downloads\GroupGitHub\GroupRepo>git push https://github.com/PrathikshaVS/GroupRepo.git master
Enumerating objects: 13, done.
Counting objects: 100% (12/12), done.
Delta compression using up to 12 threads
Compressing objects: 100% (6/6), done.
Writing objects: 100% (9/9), 815 bytes | 815.00 KiB/s, done.
Total 9 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/PrathikshaVS/GroupRepo.git
 528815f..8e8a80c  master -> master

```

8. The runner-up should now pull. As a group, look at the output of the command. Additionally, look at the git log, and notice that there is a merge commit. You may also wish to view the DAG in gitk.

```

C:\Users\welcome\Downloads\GitGroup\GroupRepo>git pull https://github.com/PrathikshaVS/GroupRepo.git master
remote: Enumerating objects: 13, done.
remote: Counting objects: 100% (12/12), done.
remote: Compressing objects: 100% (6/6), done.
remote: Total 9 (delta 0), reused 9 (delta 0), pack-reused 0
Unpacking objects: 100% (9/9), 795 bytes | 11.00 KiB/s, done.
From https://github.com/PrathikshaVS/GroupRepo
 * branch      master       -> FETCH_HEAD
Merge made by the 'ort' strategy.
 File2.txt | 2 ++
 1 file changed, 2 insertions(+)

```

```

C:\Users\welcome\Downloads\GitGroup\GroupRepo>git log
commit 2528aeb22ea70b9a9974c513138ef5adc3cdc4b3 (HEAD -> master)
Merge: d8af7d3 8e8a80c
Author: DharaniChandrasekarn31 <c.v.dharanisri@gmail.com>
Date: Tue Jul 16 10:18:51 2024 +0530

    Merge branch 'master' of https://github.com/PrathikshaVS/GroupRepo

commit d8af7d3c17d9311996d642633814d4e0c4d9c395
Author: DharaniChandrasekarn31 <c.v.dharanisri@gmail.com>
Date: Tue Jul 16 10:12:20 2024 +0530

    Fifth Commit

commit 8e8a80ca9991b104082279ed0cd137ace3162b18
Author: Harisha-08 <harshachitra0814@gmail.com>
Date: Tue Jul 16 10:09:33 2024 +0530

    Fifth commit

commit fe5c2117f41f8d6d4bf0080c1862cfd254515102
Merge: d090dfe 528815f
Author: Harisha-08 <harshachitra0814@gmail.com>
Date: Tue Jul 16 10:04:58 2024 +0530

    Fourth commit

commit d090dfe8f7dfc5ce1a4852ae6a41bd38f007bb4f
Author: Harisha-08 <harshachitra0814@gmail.com>
Date: Tue Jul 16 09:43:52 2024 +0530

    Fourth commit

commit 528815f4aade2395f65f10f6885f4b2a6449108
Author: DharaniChandrasekarn31 <c.v.dharanisri@gmail.com>
Date: Tue Jul 16 09:42:07 2024 +0530

    File1 Commit

commit 7e0378e303c1f754445a3d53712acd9b91fab903
Author: Vidharsana <vidharsanasundharraj@gmail.com>
Date: Tue Jul 16 09:27:50 2024 +0530

    Second Commit

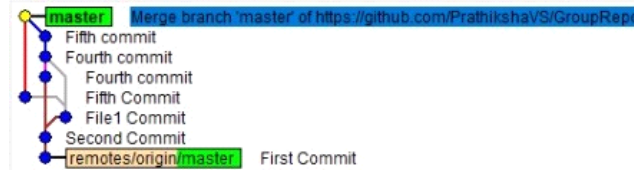
commit beb22bfcbb54eaabb4e0879340afe53073db8377 (origin/master, origin/HEAD)
Author: PrathikshaVS <prathiksha4915@gmail.com>
Date: Tue Jul 16 09:17:57 2024 +0530

    First Commit
(END)

```

GroupRepo: All files - gitk

File Edit View Help



Commit	Author	Date
master	DharaniChandrasekarn31 <c.v.dharanisri@gmail.com>	2024-07-16 10:18:51
Fifth commit	Harisha-08 <harshachitra0814@gmail.com>	2024-07-16 10:09:33
Fifth commit	Harisha-08 <harshachitra0814@gmail.com>	2024-07-16 10:04:58
Fourth commit	Harisha-08 <harshachitra0814@gmail.com>	2024-07-16 09:43:52
Fourth commit	DharaniChandrasekarn31 <c.v.dharanisri@gmail.com>	2024-07-16 10:12:20
File1 Commit	DharaniChandrasekarn31 <c.v.dharanisri@gmail.com>	2024-07-16 09:42:07
Second Commit	Vidharsana <vidharsanasundharraj@gmail.com>	2024-07-16 09:27:50
remotes/origin/master	PrathikshaVS <prathiksha4915@gmail.com>	2024-07-16 09:17:57
First Commit		

SHA1 ID: 2528aeb22ea70b9a9974c513138ef5adc3cdc4b3 Row 1 / 8

Find commit containing:

Search

Diff Old version New version Lines of context: 3 Ignore space change

Author: DharaniChandrasekarn31 <c.v.dharanisri@gmail.com> 2024-07-16 10:18:51

Committer: DharaniChandrasekarn31 <c.v.dharanisri@gmail.com> 2024-07-16 10:18:51

Parent: d8af7d3c17d9311996d642633814d4e0c4d9c395 (Fifth Commit)

Parent: 8e8a80ca9991b104082279ed0cd137ace3162b18 (Fifth commit)

Branch: master

Follows:

Precedes:

Merge branch 'master' of https://github.com/PrathikshaVS/GroupRepo

Stretch Task

1. Now create a situation where two group members both edit the same line in the same file and commit it locally. Race to push.

```
C:\Users\User\Downloads\GroupGitHub\GroupRepo>git add File2.txt

C:\Users\User\Downloads\GroupGitHub\GroupRepo>git commit -m "stretch commit"
[master aa56306] stretch commit
1 file changed, 1 insertion(+), 1 deletion(-)
```

2. When the runner-up does a pull, they should get a merge conflict.

```
E325: ATTENTION
Found a swap file by the name "~/Downloads/GroupGitHub/GroupRepo/.git/.MERGE_MSG.swp"
    owned by: User   dated: Tue Jul 16 10:03:29 2024
    file name: ~User/Downloads/GroupGitHub/GroupRepo/.git/MERGE_MSG
    modified: YES
    user name: User   host name: AIDS-LAB-15
    process ID: 1354
While opening file "/c/Users/User/Downloads/GroupGitHub/GroupRepo/.git/MERGE_MSG"
    dated: Tue Jul 16 10:47:50 2024
    NEWER than swap file!
```

3. Look as a group at the file in conflict, and resolve it.

```
E325: ATTENTION
Found a swap file by the name "~/Downloads/GroupGitHub/GroupRepo/.git/.MERGE_MSG.swp"
    owned by: User   dated: Tue Jul 16 10:03:29 2024
    file name: ~User/Downloads/GroupGitHub/GroupRepo/.git/MERGE_MSG
    modified: YES
    user name: User   host name: AIDS-LAB-15
    process ID: 1354
While opening file "/c/Users/User/Downloads/GroupGitHub/GroupRepo/.git/MERGE_MSG"
    dated: Tue Jul 16 10:47:50 2024
    NEWER than swap file!

(1) Another program may be editing the same file.  If this is the case,
    be careful not to end up with two different instances of the same
    file when making changes.  Quit, or continue with caution.
(2) An edit session for this file crashed.
    If this is the case, use ":recover" or "vim -r /c/Users/User/Downloads/GroupGitHub/GroupRepo/.git/MERGE_MSG"
    to recover the changes (see ":help recovery").
    If you did this already, delete the swap file "/c/Users/User/Downloads/GroupGitHub/GroupRepo/.git/.MERGE_MSG.swp"
    to avoid this message.

Swap file "~/Downloads/GroupGitHub/GroupRepo/.git/.MERGE_MSG.swp" already exists!
[O]pen Read-Only, [E]dit anyway, [R]ecover, [D]elete it, [Q]uit, [A]bort:
E211: File "~/Downloads/GroupGitHub/GroupRepo/.git/MERGE_MSG" no longer available

Swap file "~/Downloads/GroupGitHub/GroupRepo/.git/.MERGE_MSG.swp" already exists!
[O]pen Read-Only, [E]dit anyway, [R]ecover, [D]elete it, [Q]uit, [A]bort:
Swap file "~/Downloads/GroupGitHub/GroupRepo/.git/.MERGE_MSG.swp" already exists!
[O]pen Read-Only, [E]dit anyway, [R]ecover, [D]elete it, [Q]uit, [A]bort:
Swap file "~/Downloads/GroupGitHub/GroupRepo/.git/.MERGE_MSG.swp" already exists!
-- More -- SPACE/d/j: screen/page/line down, b/u/k: up, q: quit |
```

4. Use the add command to stage the fix, and then use commit to make the merge commit. Notice how this procedure is exactly the one you got used to when resolving conflicts in branches.

```
C:\Users\User\Downloads\GroupGitHub\GroupRepo>git add .

C:\Users\User\Downloads\GroupGitHub\GroupRepo>git commit -m "Merge commit"
[master ffd4f5a] Merge commit
1 file changed, 1 deletion(-)

C:\Users\User\Downloads\GroupGitHub\GroupRepo>git push -u https://github.com/PrathikshaVS/GroupRepo.git master
Enumerating objects: 15, done.
Counting objects: 100% (14/14), done.
Delta compression using up to 12 threads
Compressing objects: 100% (8/8), done.
Writing objects: 100% (11/11), 1.06 KiB | 1.06 MiB/s, done.
Total 11 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/PrathikshaVS/GroupRepo.git
9ed30cb..ffd4f5a master -> master
branch 'master' set up to track 'https://github.com/PrathikshaVS/GroupRepo.git/master'.
```

Exercise 4

Main Task

1. Make a commit, and make a silly typo in the commit message.

```
C:\Users\User\Downloads\GroupGitHub\GroupRepo>git add .

C:\Users\User\Downloads\GroupGitHub\GroupRepo>git commit -m "Stretch commit"
[master 8d2ec30] Stretch commit
1 file changed, 1 insertion(+), 1 deletion(-)
```

2. Use the --amend flag to enable you to fix the commit message.

```
C:\Users\User\Downloads\GroupGitHub\GroupRepo>git commit --amend -m "flag new commit"
[master 5822175] flag new commit
Date: Sat Jul 20 11:58:57 2024 +0530
```

3. Look at the log and notice how the mistake is magically gone.

```

C:\Users\User\Downloads\GroupGitHub\GroupRepo>git log -n 4
commit af202d0109b566b9659c903ae48038d074e1f9af (HEAD -> master)
Merge: 8d2ec30 5595eb7
Author: Harisha-08 <harshachitra0814@gmail.com>
Date: Sat Jul 20 11:58:57 2024 +0530

    Conflict commit

commit 8d2ec308cbf5adc48520cd379daca1413cc76c60
Author: Harisha-08 <harshachitra0814@gmail.com>
Date: Sat Jul 20 11:56:01 2024 +0530

    Stretch commit

commit 5595eb76e42d93a9fc419c8bc01926e1297868b5 (origin/MyBranch, MyBranch)
Merge: 51d36a2 99516ac
Author: Harisha-08 <harshachitra0814@gmail.com>
Date: Fri Jul 19 18:21:35 2024 +0530

    file commit

commit 06c639aefcad9a9e8089473aaccb2949a17b88cb
Author: Harisha-08 <harshachitra0814@gmail.com>
Date: Fri Jul 19 18:12:07 2024 +0530

    local commit

```

4. Now make a commit where you make a typo in one of the files. Once again, use --amend to magic away your problems.

```

C:\Users\User\Downloads\GroupGitHub\GroupRepo>git pull --rebase origin MyBranch
From https://github.com/PrathikshaVS/GroupRepo
 * branch          MyBranch    -> FETCH_HEAD
Already up to date.

```

5. Create a branch. Make a commit.


```
C:\Users\User\Downloads\GroupGitHub\GroupRepo>git branch
* master

C:\Users\User\Downloads\GroupGitHub\GroupRepo>git branch MyBranch

C:\Users\User\Downloads\GroupGitHub\GroupRepo>git checkout MyBranch
Switched to branch 'MyBranch'
```

6. Now switch back to your master branch. Make a (non-conflicting) commit there also.

```
C:\Users\User\Downloads\GroupGitHub\GroupRepo>git checkout master
Switched to branch 'master'

C:\Users\User\Downloads\GroupGitHub\GroupRepo>git add .

C:\Users\User\Downloads\GroupGitHub\GroupRepo>git commit -m "Master commit"
[master 34ae298] Master commit
1 file changed, 1 insertion(+), 1 deletion(-)
```

7. Now switch back to your branch.

```
C:\Users\User\Downloads\GroupGitHub\GroupRepo>git checkout MyBranch
Switched to branch 'MyBranch'
```

8. Use the rebase command in your branch. Look at the DAG in gitk, and note that you have the commit from the master branch, but no merge commit.

```
C:\Users\User\Downloads\GroupGitHub\GroupRepo>git rebase master
Successfully rebased and updated refs/heads/MyBranch.
```

9. Make one more commit in your branch.

```
C:\Users\User\Downloads\GroupGitHub\GroupRepo>git add .  
  
C:\Users\User\Downloads\GroupGitHub\GroupRepo>git commit -m "Another branch commit"  
[MyBranch 51d36a2] Another branch commit  
1 file changed, 1 insertion(+)
```


10. Return to master. Merge your branch. Notice how, thanks to the rebase, this is a fast forward merge.

```
C:\Users\User\Downloads\GroupGitHub\GroupRepo>git checkout master  
Switched to branch 'master'
```

```
C:\Users\User\Downloads\GroupGitHub\GroupRepo>git merge MyBranch  
Updating 34ae298..51d36a2  
Fast-forward  
File3.txt.txt | 1 +  
1 file changed, 1 insertion(+)  
create mode 100644 File3.txt.txt
```

Stretch Task

1. Find somebody from your team from the previous exercise. Have them push a commit to the central repository.


GroupRepo
Public

Watch 1
Fork 0
Star 0

master
Go to file
Code

About

No description, website, or topics provided.

Activity

0 stars

1 watching

0 forks

Report repository

Releases

No releases published


[Create a new release](#)


Packages


No packages published


[Publish your first package](#)

Contributors 4


PrathikshaVS


Harisha08 Harisha A



Vidharsana


DharaniChandrasekaran31 Dh...

Files

File1.txt	Stretch Commit	7 hours ago
File2.txt	Stretch Commit	7 hours ago
NewFile.txt	Harsha Commit	1 minute ago

README



Add a README

Help people interested in this repository understand your project by adding a README.

[Add a README](#)

2. Make a commit locally yourself also. Note that you should not this point.

```
C:\Users\User\Downloads\GroupGitHub\GroupRepo>git add .

C:\Users\User\Downloads\GroupGitHub\GroupRepo>git commit -m "local commit"
[master 06c639a] local commit
1 file changed, 1 insertion(+), 1 deletion(-)
```

3. Try to push, and watch it fail.

```
C:\Users\User\Downloads\GroupGitHub\GroupRepo>git push -u origin master
To https://github.com/PrathikshaVS/GroupRepo.git
! [rejected]        master -> master (fetch first)
error: failed to push some refs to 'https://github.com/PrathikshaVS/GroupRepo.git'
hint: Updates were rejected because the remote contains work that you do not
hint: have locally. This is usually caused by another repository pushing to
hint: the same ref. If you want to integrate the remote changes, use
hint: 'git pull' before pushing again.
hint: See the 'Note about fast-forwards' in 'git push --help' for details.
```

4. Now, pull but using the --rebase flag. have pulled their commit at

```
C:\Users\User\Downloads\GroupGitHub\GroupRepo>git pull --rebase origin MyBranch
From https://github.com/PrathikshaVS/GroupRepo
* branch          MyBranch    -> FETCH_HEAD
Already up to date.
```

5. Use git log and gitk to verify that there is no merge commit, and the DAG is linear.

```
C:\Users\User\Downloads\GroupGitHub\GroupRepo>git log
commit 5595eb76e42d93a9fc419c8bc01926e1297868b5 (HEAD -> MyBranch)
Merge: 51d36a2 99516ac
Author: Harisha-08 <harshachitra0814@gmail.com>
Date: Fri Jul 19 18:21:35 2024 +0530
```

file commit

```
commit 99516accdb4aa88e380ab4dee5d5585f2f8d962e (origin/master, origin/HEAD)
Author: Dharani C V <147472064+DharaniChandrasekaran31@users.noreply.github.com>
Date: Fri Jul 19 18:06:52 2024 +0530
```

Harsha Commit

```
commit 51d36a2f34bf7b9ea9d5a4b9c07a093b5b4d9300
Author: Harisha-08 <harshachitra0814@gmail.com>
Date: Fri Jul 19 13:55:10 2024 +0530
```

Another branch commit

```
commit 64ddbde9989b5bbf879ef9b37c2b133bd8844e12
Author: Harisha-08 <harshachitra0814@gmail.com>
Date: Fri Jul 19 13:49:23 2024 +0530
```

Branch commit

```
commit 34ae29830dd9239f4b8e9a3018ffae6c870843ba
Author: Harisha-08 <harshachitra0814@gmail.com>
Date: Fri Jul 19 13:52:07 2024 +0530
```

GroupRepo: All files - gitk

File Edit View Help

MyBranch file commit
remotes/origin/master Harsha Commit
commit all
Stretch Commit
Commit Correction1
Commit Correction
Comit
Commit1
Commit2
Commit2
all commit

SHA1 ID: 5595eb76e42d93a9fc419c8bc01926e1297868b5 Row 1 / 29

Find commit containing:

Search

Diff Old version New version Lines of context: 3 Ignore space

Author: Harisha-08 <harshachitra0814@gmail.com> 2024-07-19 18:21:35
Committer: Harisha-08 <harshachitra0814@gmail.com> 2024-07-19 18:21:35
Parent: 51d36a2f34bf7b9ea9d5a4b9c07a093b5b4d9300 (Another branch commit)
Parent: 99516accd4aa88e380ab4dee5d5585f2f8d962e (Harsha Commit)
Branch: MyBranch
Follows:
Precedes:

file commit

----- File1.txt -----
index 6a2e536,5a32c5a..333c0f3
@@@ -1,1 -1,10 +1,14 @@@
+ <<<<<<< HEAD
+hi hello!!!
++=====

++<<<<<<< HEAD
+ hi hello
+ =====
+ hi Hallo Guten Morgen
+ <<<<<<< HEAD
+ wo ist groB und ist bin Scheten
+ =====
+ wo ist groB

Patch Tree

Comments
File1.txt

6. Notice that your commit is the latest one, even though temporally the other member of your team made their commit afterwards. Why is this?

```
C:\Users\User\Downloads\GroupGitHub\GroupRepo>git log -n 1
commit 5595eb76e42d93a9fc419c8bc01926e1297868b5 (HEAD -> MyBranch)
Merge: 51d36a2 99516ac
Author: Harisha-08 <harshachitra0814@gmail.com>
Date: Fri Jul 19 18:21:35 2024 +0530

file commit
```