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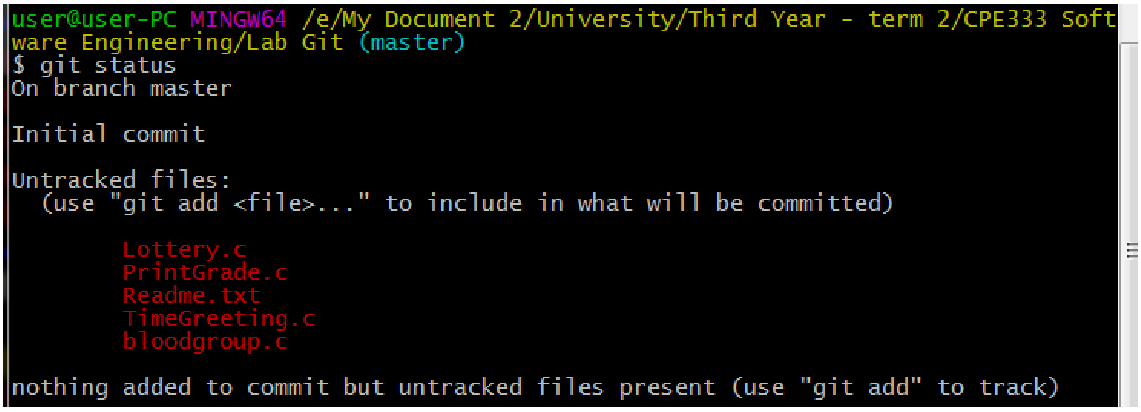
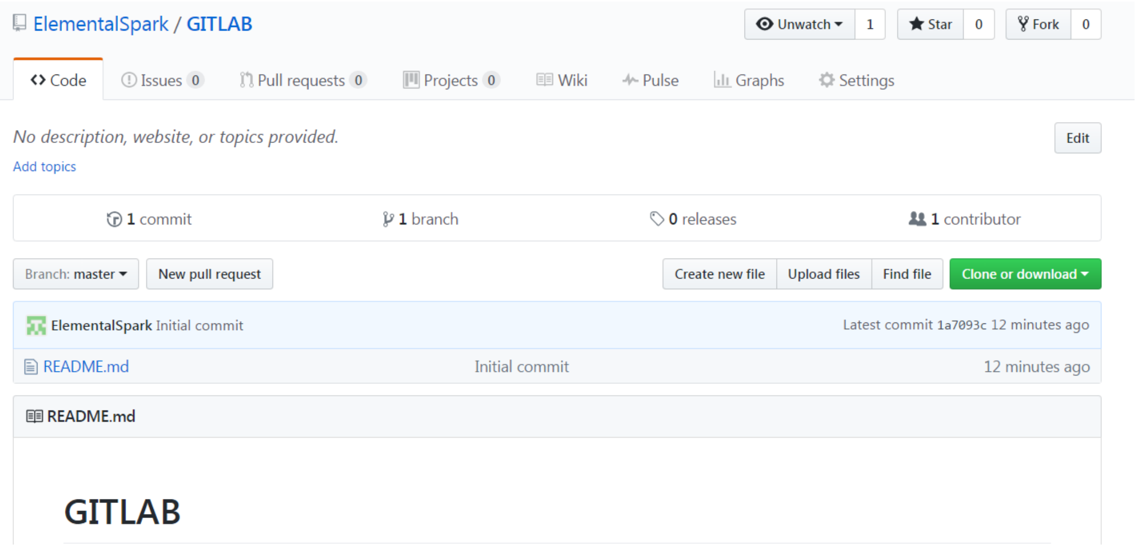
Lab Git

1. Create a blank repository in GitHub under User A's account called "GITLAB" with 1 Readme file. Print hub status. Both users A and B will use this repository. Add User B as collaborator to this repository.



```
user@user-PC MINGW64 /e/My Document 2/University/Third Year - term 2/CPE333 Soft
ware Engineering/Lab Git (master)
$ git status
On branch master

Initial commit

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

        Lottery.c
        PrintGrade.c
        Readme.txt
        TimeGreeting.c
        bloodgroup.c

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



No description, website, or topics provided.

1 commit | 1 branch | 0 releases | 1 contributor

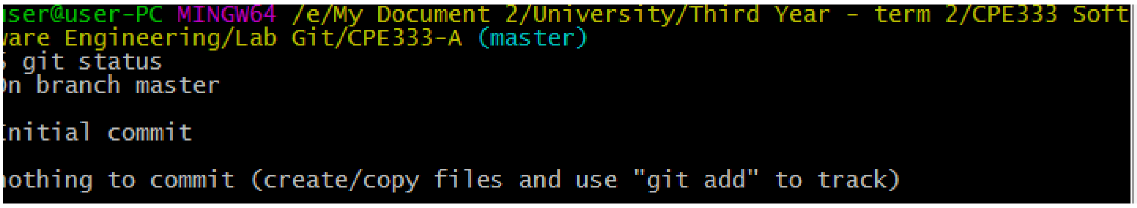
ElementalSpark Initial commit — Latest commit 1a7093c 12 minutes ago

README.md — Initial commit — 12 minutes ago

README.md

GITLAB

2. In some path create a folder called "CPE333-A" for User A. Make this a git repository and pull data from GitHub. Show status.

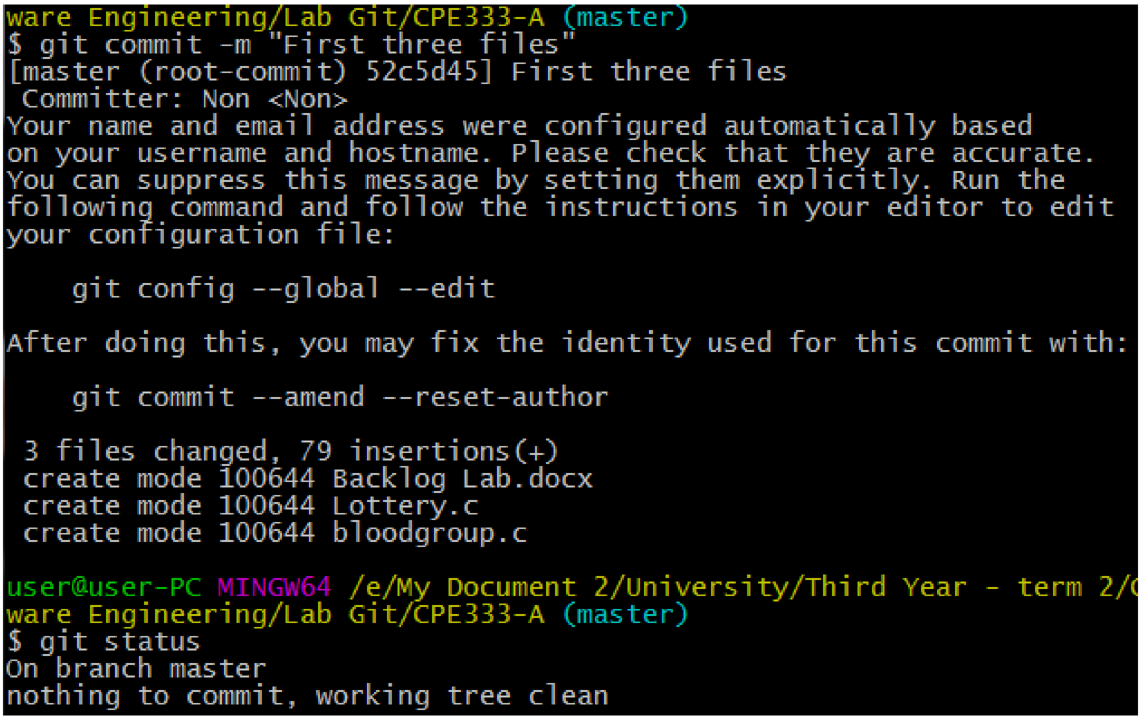


```
ser@user-PC MINGW64 /e/My Document 2/University/Third Year - term 2/CPE333 Soft
are Engineering/Lab Git/CPE333-A (master)
 git status
n branch master

nitial commit

othing to commit (create/copy files and use "git add" to track)
```

3. In some path create a folder called “CPE333-B” for User B. Make this a git repository and pull data from GitHub. Show status.

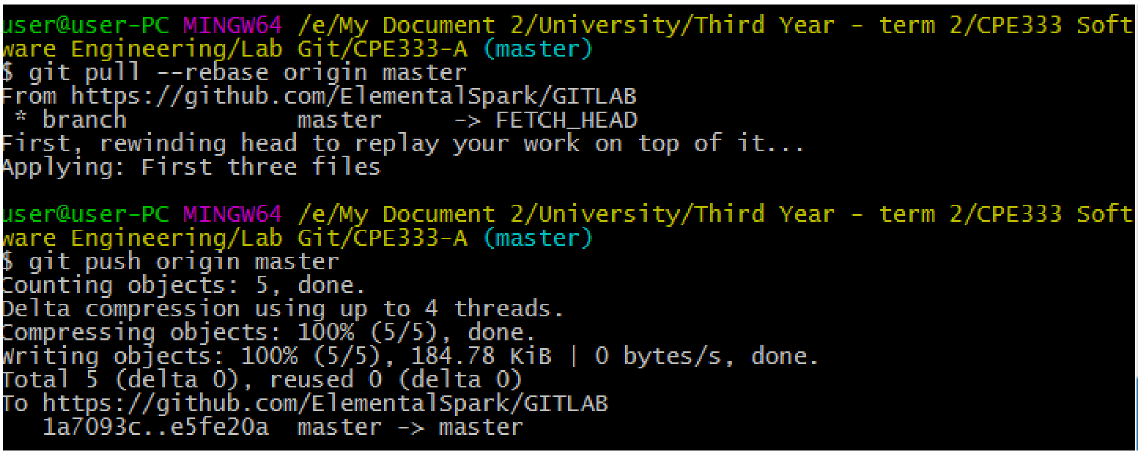
4. User A. Use file manager to put 2 C programs (Program #1 and Program #2), and 1 MS Word document into CPE333-A.

5. User A. Add all files to git. Then commit. Show Status. 6. User A. Push your local repository to the GitHub repository. (You should always pull before you push). Show screen.



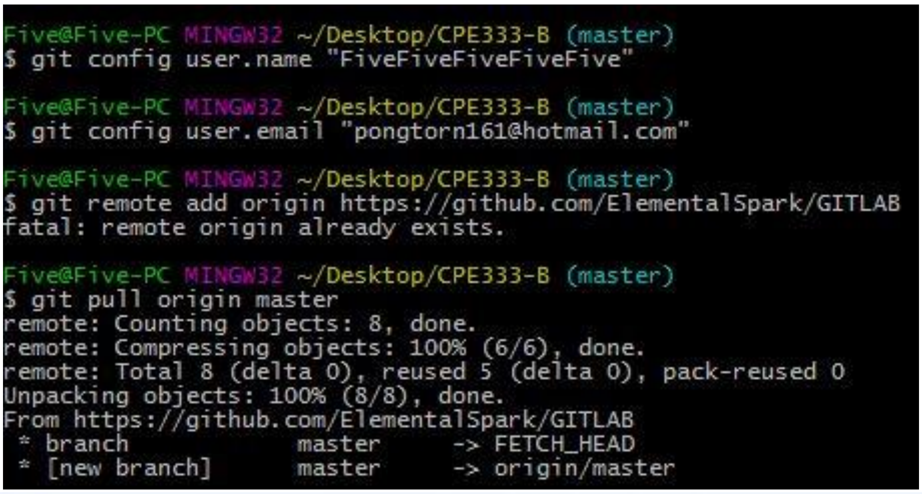
```
ware Engineering/Lab Git/CPE333-A (master)
$ git commit -m "First three files"
[master (root-commit) 52c5d45] First three files
 Committer: Non <Non>
Your name and email address were configured automatically based
on your username and hostname. Please check that they are accurate.
You can suppress this message by setting them explicitly. Run the
following command and follow the instructions in your editor to edit
your configuration file:

    git config --global --edit

After doing this, you may fix the identity used for this commit with:

    git commit --amend --reset-author

 3 files changed, 79 insertions(+)
 create mode 100644 Backlog Lab.docx
 create mode 100644 Lottery.c
 create mode 100644 bloodgroup.c

user@user-PC MINGW64 /e/My Document 2/University/Third Year - term 2/C
ware Engineering/Lab Git/CPE333-A (master)
$ git status
On branch master
nothing to commit, working tree clean
```

6. User A. Push your local repository to the GitHub repository. (You should always pull before you push). Show screen.

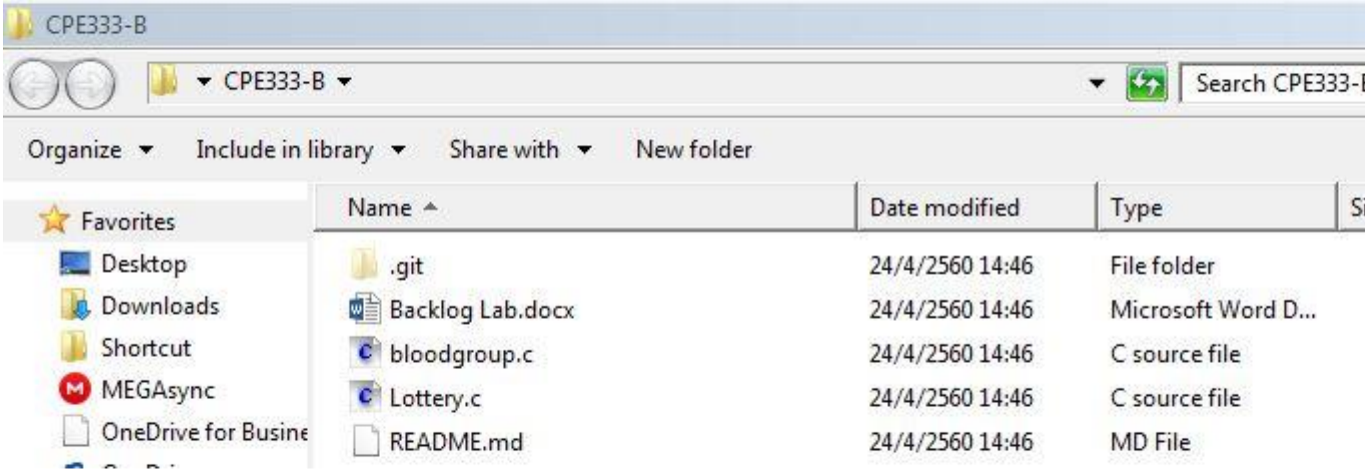


```
user@user-PC MINGW64 /e/My Document 2/University/Third Year - term 2/CPE333 Soft
ware Engineering/Lab Git/CPE333-A (master)
$ git pull --rebase origin master
From https://github.com/ElementalSpark/GITLAB
 * branch            master     -> FETCH_HEAD
First, rewinding head to replay your work on top of it...
Applying: First three files

user@user-PC MINGW64 /e/My Document 2/University/Third Year - term 2/CPE333 Soft
ware Engineering/Lab Git/CPE333-A (master)
$ git push origin master
Counting objects: 5, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (5/5), done.
Writing objects: 100% (5/5), 184.78 KiB | 0 bytes/s, done.
Total 5 (delta 0), reused 0 (delta 0)
To https://github.com/ElementalSpark/GITLAB
   1a7093c..e5fe20a  master -> master
```

7. User B pulls data from GitHub. Show status.

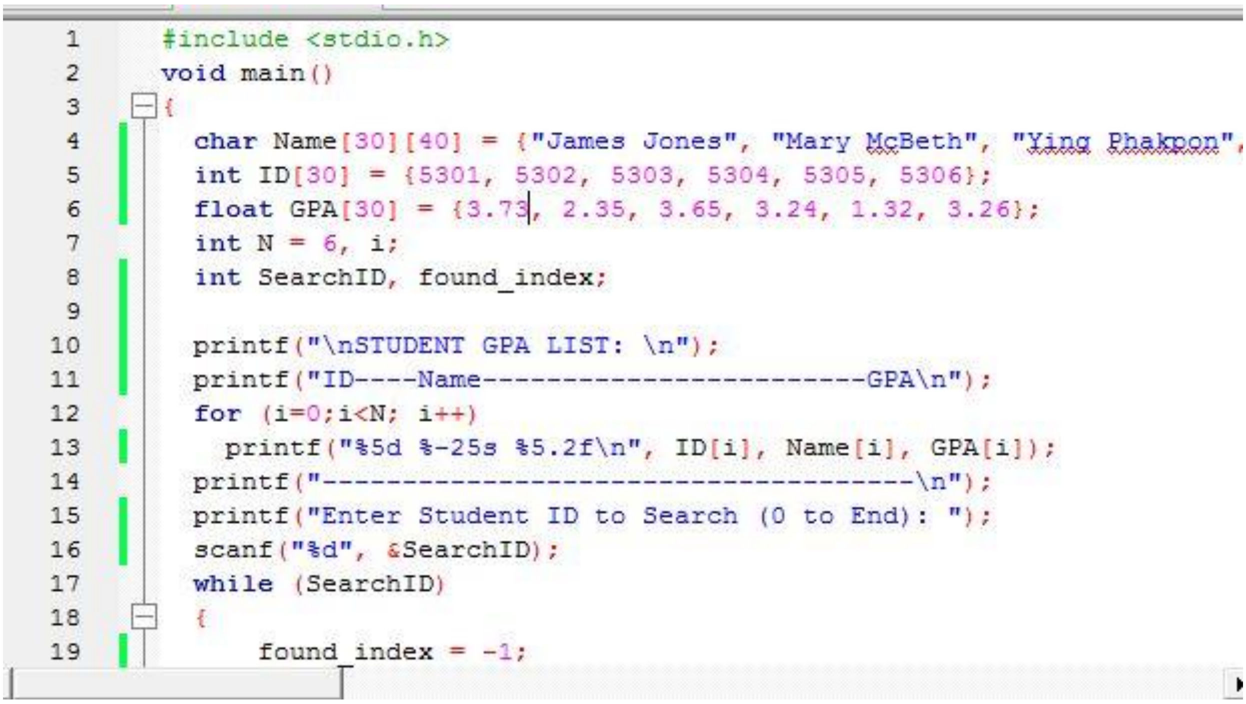


```
Five@Five-PC MINGW32 ~/Desktop/CPE333-B (master)
$ git config user.name "FiveFiveFiveFiveFive"

Five@Five-PC MINGW32 ~/Desktop/CPE333-B (master)
$ git config user.email "pongtorn161@hotmail.com"

Five@Five-PC MINGW32 ~/Desktop/CPE333-B (master)
$ git remote add origin https://github.com/ElementalSpark/GITLAB
fatal: remote origin already exists.

Five@Five-PC MINGW32 ~/Desktop/CPE333-B (master)
$ git pull origin master
remote: Counting objects: 8, done.
remote: Compressing objects: 100% (6/6), done.
remote: Total 8 (delta 0), reused 5 (delta 0), pack-reused 0
Unpacking objects: 100% (8/8), done.
From https://github.com/ElementalSpark/GITLAB
 * branch            master     -> FETCH_HEAD
 * [new branch]      master     -> origin/master
```



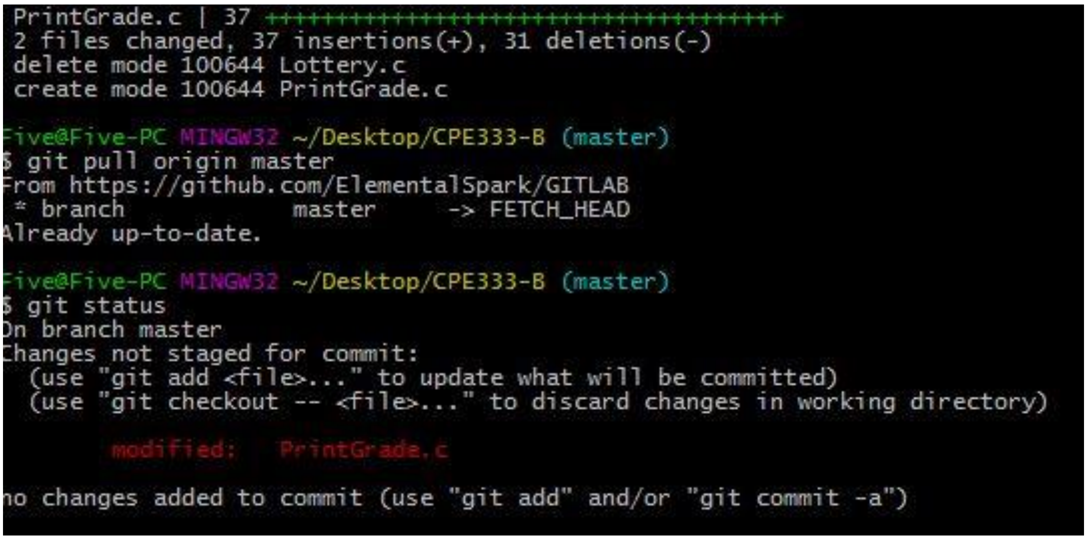
Name	Date modified	Type
.git	24/4/2560 14:46	File folder
Backlog Lab.docx	24/4/2560 14:46	Microsoft Word D...
bloodgroup.c	24/4/2560 14:46	C source file
Lottery.c	24/4/2560 14:46	C source file
README.md	24/4/2560 14:46	MD File

8. User B change 1 function in Program #2. Print local status User B.



```
#include <stdio.h>
void main()
{
  char Name[30][40] = {"James Jones", "Mary McBeth", "Ying Phakpon",
  int ID[30] = {5301, 5302, 5303, 5304, 5305, 5306};
  float GPA[30] = {3.73, 2.35, 3.65, 3.24, 1.32, 3.26};
  int N = 6, i;
  int SearchID, found_index;

  printf("\nSTUDENT GPA LIST: \n");
  printf("ID----Name------------------------GPA\n");
  for (i=0;i<N; i++)
    printf("%5d %-25s %5.2f\n", ID[i], Name[i], GPA[i]);
  printf("--------------------------------------\n");
  printf("Enter Student ID to Search (0 to End): ");
  scanf("%d", &SearchID);
  while (SearchID)
  {
      found_index = -1;
```

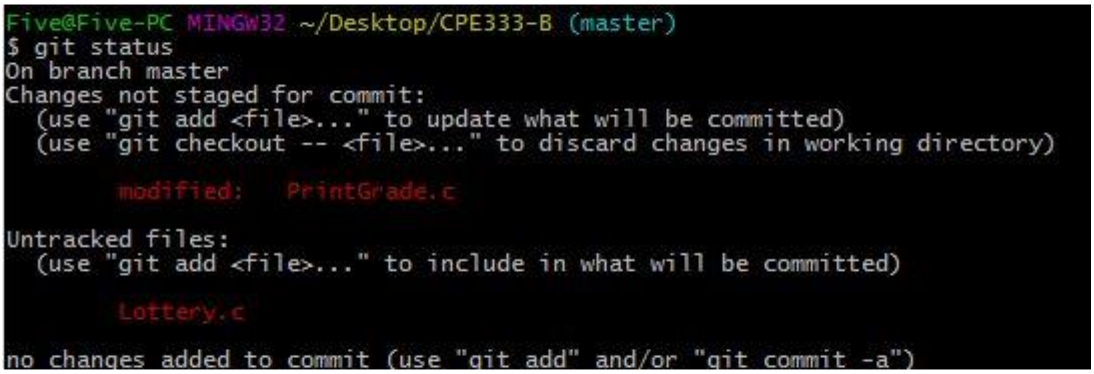
```
char Name[30][40] = {"Sam Matthews", "Mary McBeth", "Ying Phakpon","Chai Chanchai", "
int ID[30] = {5301, 5302, 5303, 5304, 5305, 5306};
float GPA[30] = {2.73, 2.35, 3.65, 3.24, 1.32, 3.26};
int N = 6, i;
int SearchID, found_index;

printf("\nSTUDENT GPA LIST: \n");
printf("ID----Name------------------------GPA\n");
for (i=0;i<N; i++)
  printf("%5d %-25s %5.2f\n", ID[i], Name[i], GPA[i]);
printf("--------------------------------------\n");
printf("Enter Student ID to Search (0 to End): ");
scanf("%d", &SearchID);
while (SearchID)
{
```



```
 PrintGrade.c | 37 +++++++++++++++++++++++++++++++++++++
 2 files changed, 37 insertions(+), 31 deletions(-)
 delete mode 100644 Lottery.c
 create mode 100644 PrintGrade.c

Five@Five-PC MINGW32 ~/Desktop/CPE333-B (master)
$ git pull origin master
From https://github.com/ElementalSpark/GITLAB
 * branch            master     -> FETCH_HEAD
Already up-to-date.

Five@Five-PC MINGW32 ~/Desktop/CPE333-B (master)
$ git status
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git checkout -- <file>..." to discard changes in working directory)

        modified:   PrintGrade.c

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

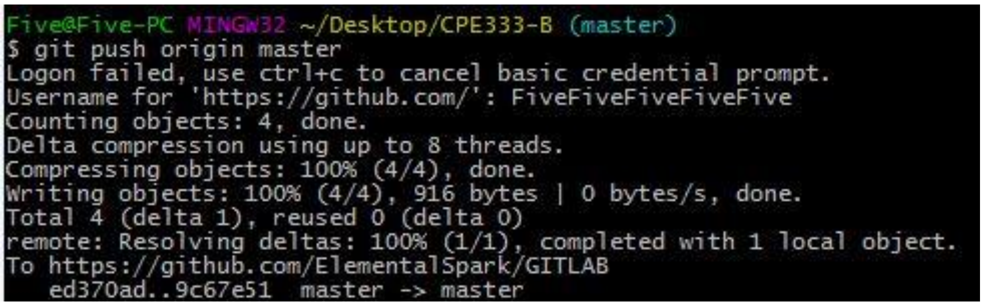
9. User B create a new C program Program #3. Do not put into Git yet. Print local status User B.

10. User B adds Program #3 to Git control (git add). Print local status User B.

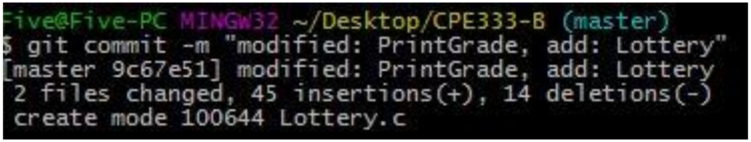


```
Five@Five-PC MINGW32 ~/Desktop/CPE333-B (master)
$ git status
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git checkout -- <file>..." to discard changes in working directory)

        modified:   PrintGrade.c

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

        Lottery.c

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

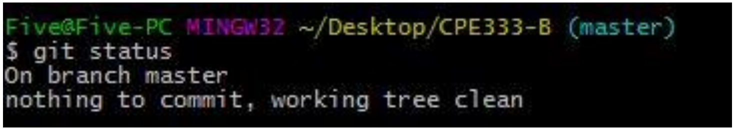
11. User B commits changes. Print local status User B. 12. User B pushes changes to the GitHub repository. (You should always pull before you push). Print hub status. Print User B status.



```
Five@Five-PC MINGW32 ~/Desktop/CPE333-B (master)
$ git push origin master
Logon failed, use ctrl+c to cancel basic credential prompt.
Username for 'https://github.com/': FiveFiveFiveFiveFive
Counting objects: 4, done.
Delta compression using up to 8 threads.
Compressing objects: 100% (4/4), done.
Writing objects: 100% (4/4), 916 bytes | 0 bytes/s, done.
Total 4 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/ElementalSpark/GITLAB
   ed370ad..9c67e51  master -> master
```

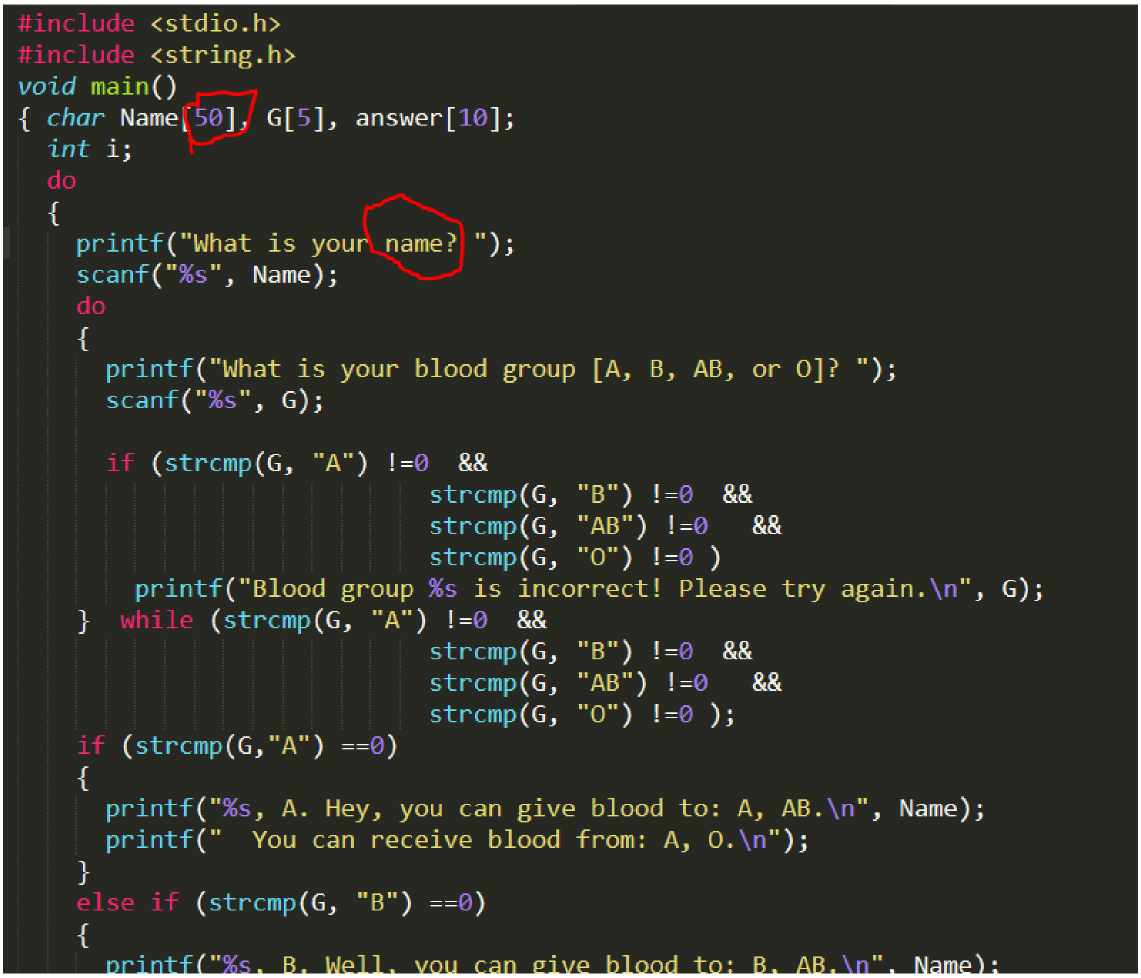


```
ive@Five-PC MINGW32 ~/Desktop/CPE333-B (master)
$ git commit -m "modified: PrintGrade, add: Lottery"
[master 9c67e51] modified: PrintGrade, add: Lottery
 2 files changed, 45 insertions(+), 14 deletions(-)
 create mode 100644 Lottery.c
```

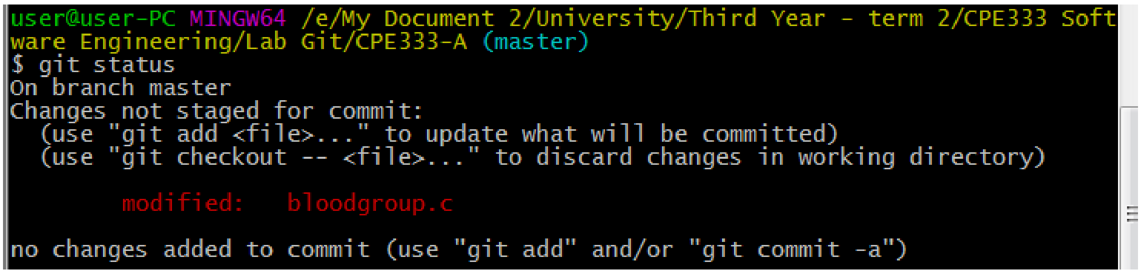


```
Five@Five-PC MINGW32 ~/Desktop/CPE333-B (master)
$ git status
On branch master
nothing to commit, working tree clean
```

13. User A change something in C Program #1. Print local status User A.

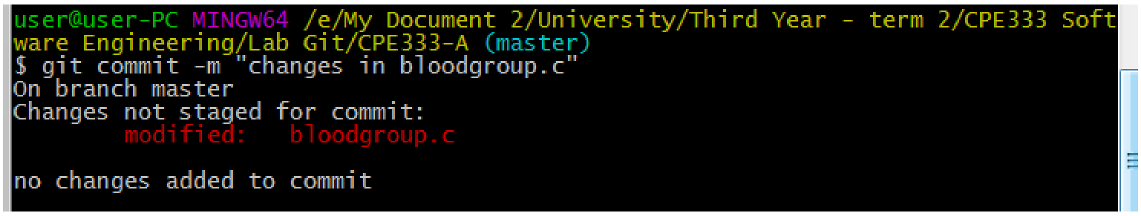


```
#include <stdio.h>
#include <string.h>
void main()
{ char Name[50], G[5], answer[10];
  int i;
  do
  {
    printf("What is your name? ");
    scanf("%s", Name);
    do
    {
      printf("What is your blood group [A, B, AB, or O]? ");
      scanf("%s", G);

      if (strcmp(G, "A") !=0  &&
                     strcmp(G, "B") !=0  &&
                     strcmp(G, "AB") !=0   &&
                     strcmp(G, "O") !=0 )
        printf("Blood group %s is incorrect! Please try again.\n", G);
    }  while (strcmp(G, "A") !=0  &&
                     strcmp(G, "B") !=0  &&
                     strcmp(G, "AB") !=0   &&
                     strcmp(G, "O") !=0 );
    if (strcmp(G,"A") ==0)
    {
      printf("%s, A. Hey, you can give blood to: A, AB.\n", Name);
      printf("  You can receive blood from: A, O.\n");
    }
    else if (strcmp(G, "B") ==0)
    {
      printf("%s, B. Well, you can give blood to: B, AB.\n", Name);
```



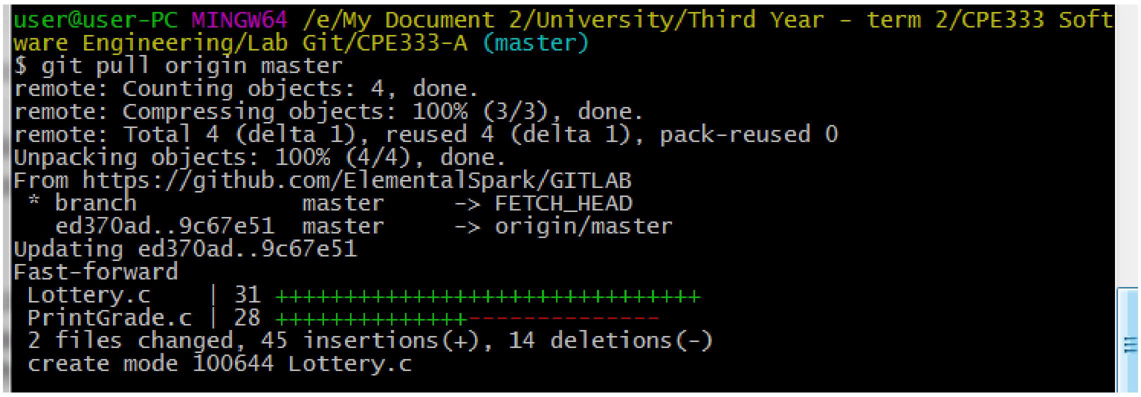
```
user@user-PC MINGW64 /e/My Document 2/University/Third Year - term 2/CPE333 Soft
ware Engineering/Lab Git/CPE333-A (master)
$ git status
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git checkout -- <file>..." to discard changes in working directory)

        modified:   bloodgroup.c

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

14. User A stages its changes and commits at once. Print local status User A.



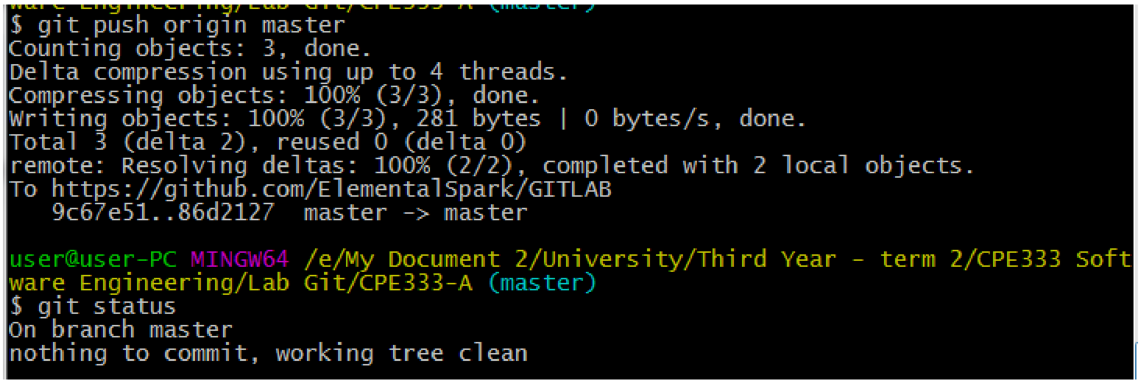
```
user@user-PC MINGW64 /e/My Document 2/University/Third Year - term 2/CPE333 Soft
ware Engineering/Lab Git/CPE333-A (master)
$ git commit -m "changes in bloodgroup.c"
On branch master
Changes not staged for commit:
        modified:   bloodgroup.c

no changes added to commit
```

15. User A pulls repository from GitHub.



```
user@user-PC MINGW64 /e/My Document 2/University/Third Year - term 2/CPE333 Soft
ware Engineering/Lab Git/CPE333-A (master)
$ git pull origin master
remote: Counting objects: 4, done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 4 (delta 1), reused 4 (delta 1), pack-reused 0
Unpacking objects: 100% (4/4), done.
From https://github.com/ElementalSpark/GITLAB
 * branch            master     -> FETCH_HEAD
   ed370ad..9c67e51  master     -> origin/master
Updating ed370ad..9c67e51
Fast-forward
 Lottery.c    | 31 +++++++++++++++++++++++++++++++
 PrintGrade.c | 28 ++++++++++++++--------------
 2 files changed, 45 insertions(+), 14 deletions(-)
 create mode 100644 Lottery.c
```

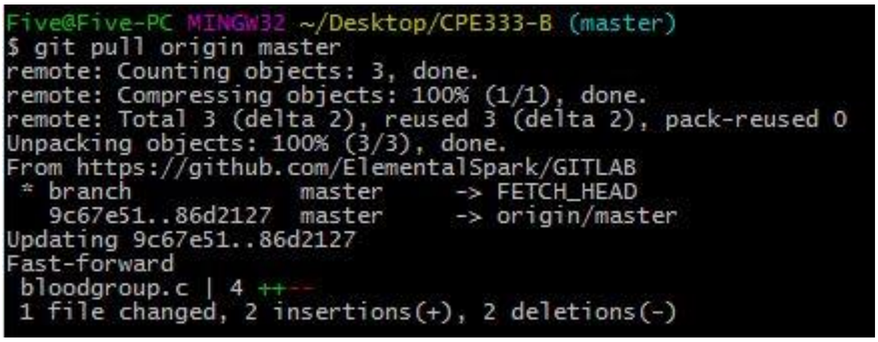
16. User A pushes changes to GitHub repository. Print status User A.



```
ware Engineering/Lab Git/CPE333-A (master)
$ git push origin master
Counting objects: 3, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 281 bytes | 0 bytes/s, done.
Total 3 (delta 2), reused 0 (delta 0)
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
To https://github.com/ElementalSpark/GITLAB
   9c67e51..86d2127  master -> master

user@user-PC MINGW64 /e/My Document 2/University/Third Year - term 2/CPE333 Soft
ware Engineering/Lab Git/CPE333-A (master)
$ git status
On branch master
nothing to commit, working tree clean
```

17. User B pulls repository from GitHub.

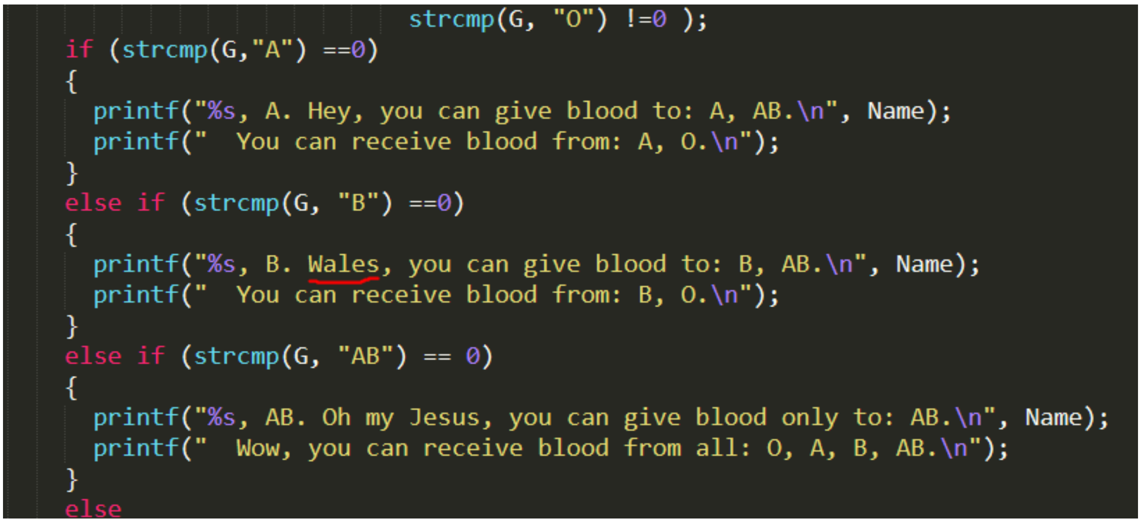
- All 3 repositories have same copy now.



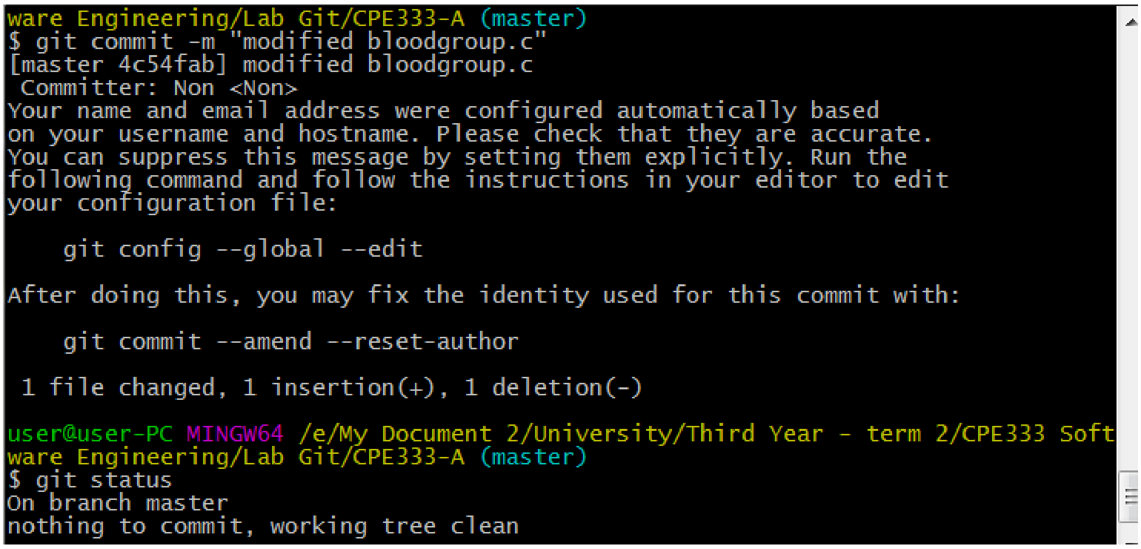
```
Five@Five-PC MINGW32 ~/Desktop/CPE333-B (master)
$ git pull origin master
remote: Counting objects: 3, done.
remote: Compressing objects: 100% (1/1), done.
remote: Total 3 (delta 2), reused 3 (delta 2), pack-reused 0
Unpacking objects: 100% (3/3), done.
From https://github.com/ElementalSpark/GITLAB
 * branch            master     -> FETCH_HEAD
   9c67e51..86d2127  master     -> origin/master
Updating 9c67e51..86d2127
Fast-forward
 bloodgroup.c | 4 ++--
 1 file changed, 2 insertions(+), 2 deletions(-)
```

18. Then User A changes Program #1 at 2 places and User B changes same Program #1 at 2 places (make sure they change same general error or in the next step there may be no merge conflict visible □) . Both add and commit changes. Print status of User A and User B.

From A

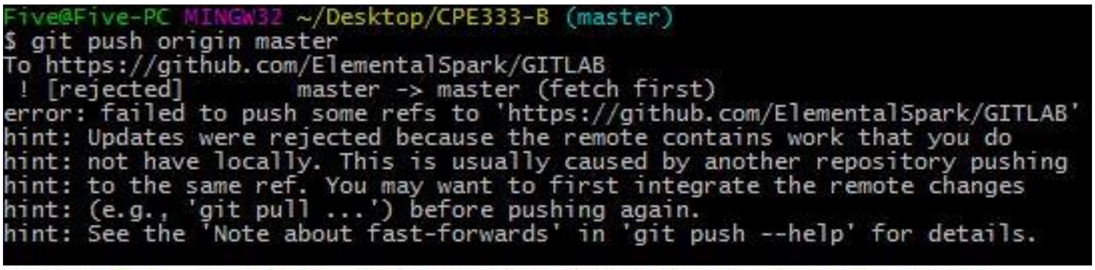


```
                                   strcmp(G, "O") !=0 );
    if (strcmp(G,"A") ==0)
    {
      printf("%s, A. Hey, you can give blood to: A, AB.\n", Name);
      printf("  You can receive blood from: A, O.\n");
    }
    else if (strcmp(G, "B") ==0)
    {
      printf("%s, B. Wales, you can give blood to: B, AB.\n", Name);
      printf("  You can receive blood from: B, O.\n");
    }
    else if (strcmp(G, "AB") == 0)
    {
      printf("%s, AB. Oh my Jesus, you can give blood only to: AB.\n", Name);
      printf("  Wow, you can receive blood from all: O, A, B, AB.\n");
    }
    else
```

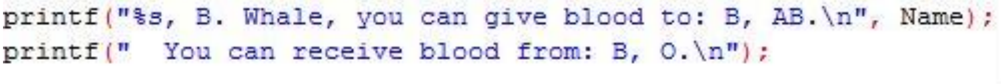


```
ware Engineering/Lab Git/CPE333-A (master)
$ git commit -m "modified bloodgroup.c"
[master 4c54fab] modified bloodgroup.c
 Committer: Non <Non>
Your name and email address were configured automatically based
on your username and hostname. Please check that they are accurate.
You can suppress this message by setting them explicitly. Run the
following command and follow the instructions in your editor to edit
your configuration file:

    git config --global --edit

After doing this, you may fix the identity used for this commit with:

    git commit --amend --reset-author

 1 file changed, 1 insertion(+), 1 deletion(-)

user@user-PC MINGW64 /e/My Document 2/University/Third Year - term 2/CPE333 Soft
ware Engineering/Lab Git/CPE333-A (master)
$ git status
On branch master
nothing to commit, working tree clean
```

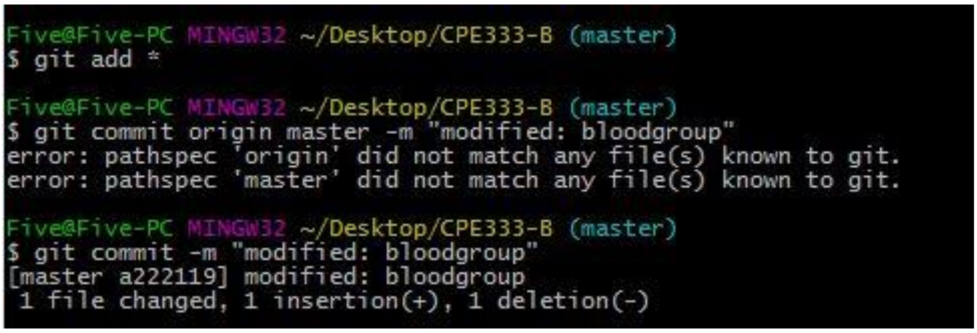
From B



```
Five@Five-PC MINGW32 ~/Desktop/CPE333-B (master)
$ git push origin master
To https://github.com/ElementalSpark/GITLAB
 ! [rejected]        master -> master (fetch first)
error: failed to push some refs to 'https://github.com/ElementalSpark/GITLAB'
hint: Updates were rejected because the remote contains work that you do
hint: not have locally. This is usually caused by another repository pushing
hint: to the same ref. You may want to first integrate the remote changes
hint: (e.g., 'git pull ...') before pushing again.
hint: See the 'Note about fast-forwards' in 'git push --help' for details.
```

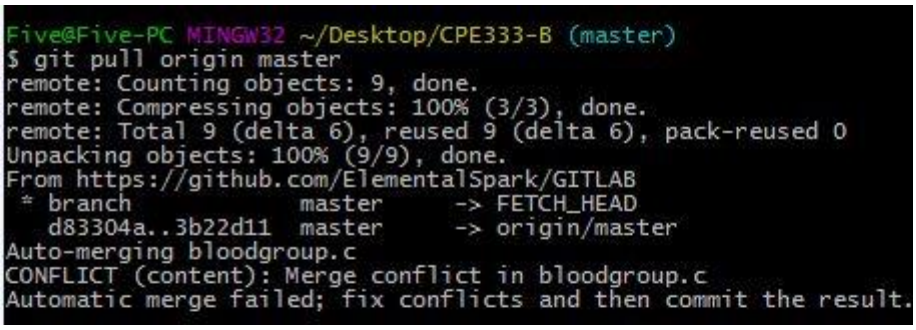


```
printf("%s, B. Whale, you can give blood to: B, AB.\n", Name);
printf("  You can receive blood from: B, O.\n");
```



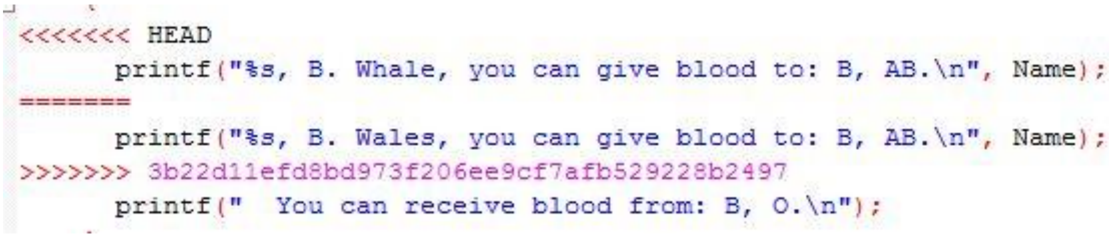
```
Five@Five-PC MINGW32 ~/Desktop/CPE333-B (master)
$ git add *

Five@Five-PC MINGW32 ~/Desktop/CPE333-B (master)
$ git commit origin master -m "modified: bloodgroup"
error: pathspec 'origin' did not match any file(s) known to git.
error: pathspec 'master' did not match any file(s) known to git.

Five@Five-PC MINGW32 ~/Desktop/CPE333-B (master)
$ git commit -m "modified: bloodgroup"
[master a222119] modified: bloodgroup
 1 file changed, 1 insertion(+), 1 deletion(-)
```

19. User A pulls from GitHub and then pushes to GitHub. User B then pulls and pushes to GitHub, but there’s conflict. (There will be a conflict if user A and B both change Program #1 at about the same lines). Resolve this merge conflict for User B and commit change. Show each step.



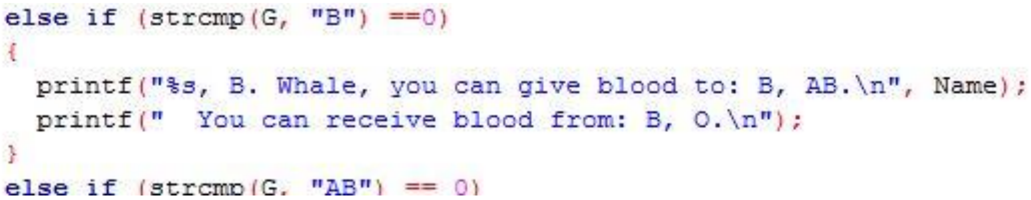
```
Five@Five-PC MINGW32 ~/Desktop/CPE333-B (master)
$ git pull origin master
remote: Counting objects: 9, done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 9 (delta 6), reused 9 (delta 6), pack-reused 0
Unpacking objects: 100% (9/9), done.
From https://github.com/ElementalSpark/GITLAB
 * branch            master     -> FETCH_HEAD
   d83304a..3b22d11  master     -> origin/master
Auto-merging bloodgroup.c
CONFLICT (content): Merge conflict in bloodgroup.c
Automatic merge failed; fix conflicts and then commit the result.
```

The conflict



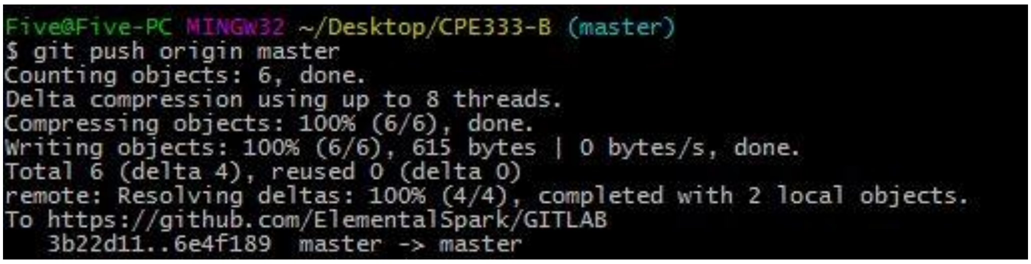
```
<<<<<<< HEAD
      printf("%s, B. Whale, you can give blood to: B, AB.\n", Name);
=======
      printf("%s, B. Wales, you can give blood to: B, AB.\n", Name);
>>>>>>> 3b22d11efd8bd973f206ee9cf7afb529228b2497
      printf("  You can receive blood from: B, O.\n");
```

Fixes



```
else if (strcmp(G, "B") ==0)
{
  printf("%s, B. Whale, you can give blood to: B, AB.\n", Name);
  printf("  You can receive blood from: B, O.\n");
}
else if (strcmp(G, "AB") == 0)
```

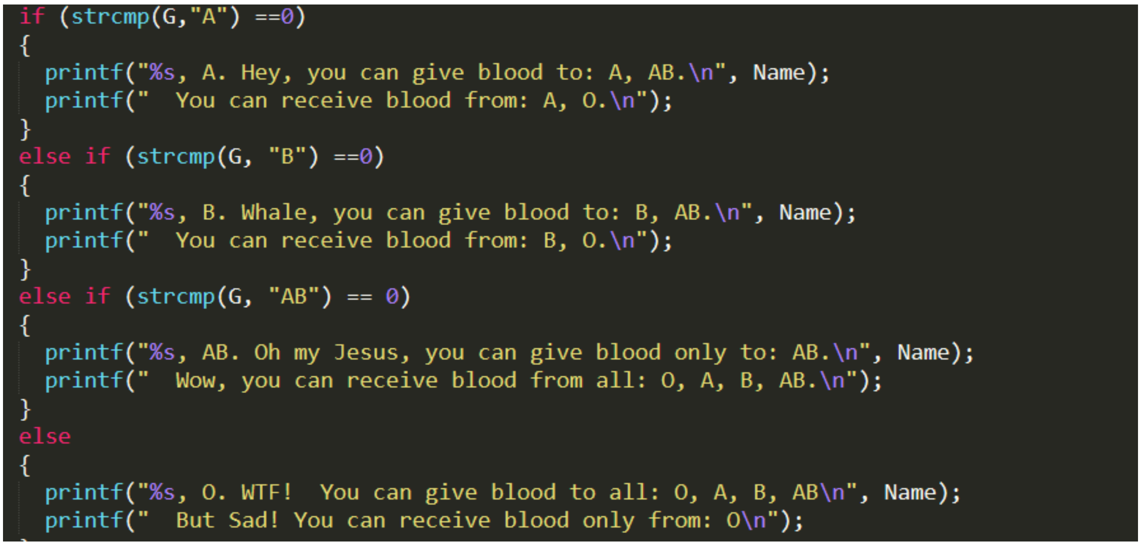
Push back



```
Five@Five-PC MINGW32 ~/Desktop/CPE333-B (master)
$ git push origin master
Counting objects: 6, done.
Delta compression using up to 8 threads.
Compressing objects: 100% (6/6), done.
Writing objects: 100% (6/6), 615 bytes | 0 bytes/s, done.
Total 6 (delta 4), reused 0 (delta 0)
remote: Resolving deltas: 100% (4/4), completed with 2 local objects.
To https://github.com/ElementalSpark/GITLAB
   3b22d11..6e4f189  master -> master
```

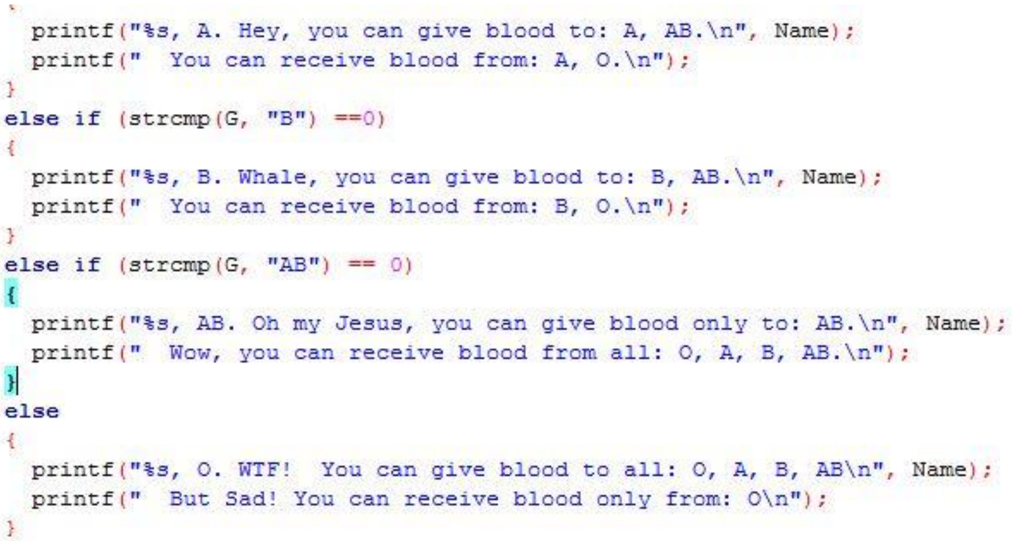
20. Then User A pulls the changes. Show the Program#1 for both users that they are now the same.

From A



```
if (strcmp(G,"A") ==0)
{
  printf("%s, A. Hey, you can give blood to: A, AB.\n", Name);
  printf("  You can receive blood from: A, O.\n");
}
else if (strcmp(G, "B") ==0)
{
  printf("%s, B. Whale, you can give blood to: B, AB.\n", Name);
  printf("  You can receive blood from: B, O.\n");
}
else if (strcmp(G, "AB") == 0)
{
  printf("%s, AB. Oh my Jesus, you can give blood only to: AB.\n", Name);
  printf("  Wow, you can receive blood from all: O, A, B, AB.\n");
}
else
{
  printf("%s, O. WTF!  You can give blood to all: O, A, B, AB\n", Name);
  printf("  But Sad! You can receive blood only from: O\n");
```

From B



```
  printf("%s, A. Hey, you can give blood to: A, AB.\n", Name);
  printf("  You can receive blood from: A, O.\n");
}
else if (strcmp(G, "B") ==0)
{
  printf("%s, B. Whale, you can give blood to: B, AB.\n", Name);
  printf("  You can receive blood from: B, O.\n");
}
else if (strcmp(G, "AB") == 0)
{
  printf("%s, AB. Oh my Jesus, you can give blood only to: AB.\n", Name);
  printf("  Wow, you can receive blood from all: O, A, B, AB.\n");
}
else
{
  printf("%s, O. WTF!  You can give blood to all: O, A, B, AB\n", Name);
  printf("  But Sad! You can receive blood only from: O\n");
}
```