

Experiment -1.2

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Branch:CSE(DevOps)

Semester:4sem

Subject Name:Git and GitHub

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Section/Group:22BCD-1/A

Date of Performance:23jan24

Subject Code:

1. Aim/Overview of the practical:

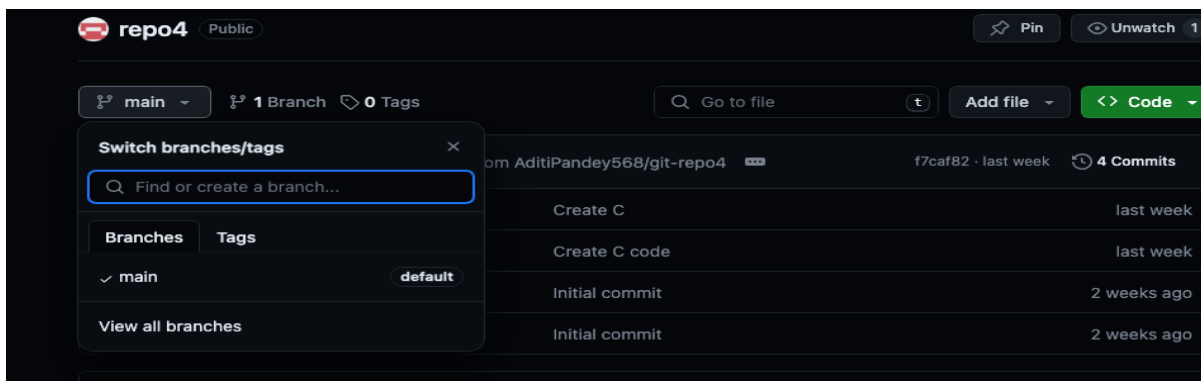
Creating branches with GitHub

2. Software used: Bash Terminal and GitHub.

3.Steps for experiment:

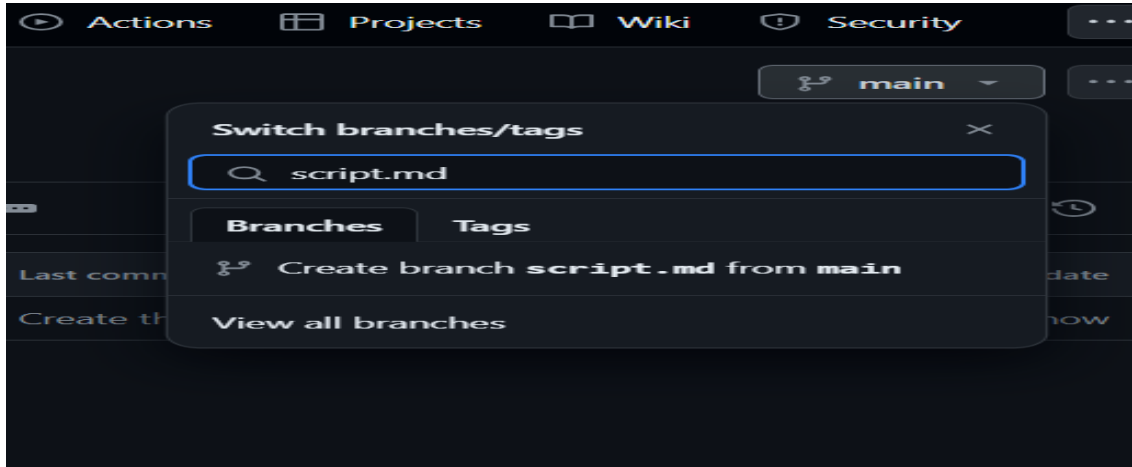
For Creating branch on GitHub :

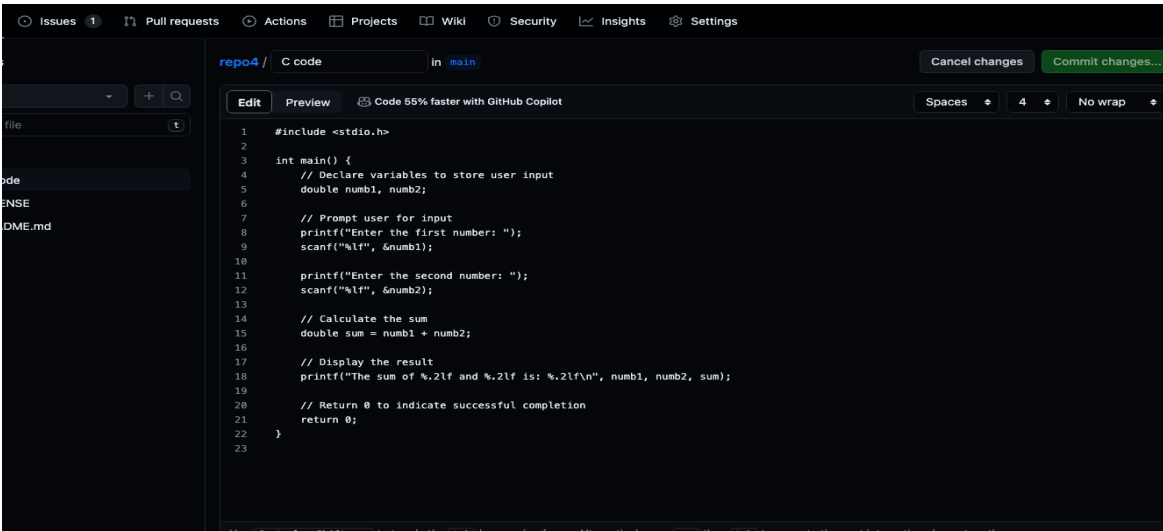
1. Login to your github profile on Chrome.
2. Click on the repository where you want to do branching.
3. Click on add file to add a new file.
4. Give this file a name “C” and write the code c language in it.



```
1 #include <stdio.h>
2
3 int main() {
4     // Declare variables to store user input
5     double num1, num2;
6
7     // Prompt user for input
8     printf("Enter the first number: ");
9     scanf("%lf", &num1);
10
11     printf("Enter the second number: ");
12     scanf("%lf", &num2);
13
14     // Calculate the sum
15     double sum = num1 + num2;
16
17     // Display the result
18     printf("The sum of %.2lf and %.2lf is: %.2lf\n", num1, num2, sum);
19
20     // Return 0 to indicate successful completion
21     return 0;
22 }
23
```

6. Click on “**commit changes**” button to commit the change.
7. Now go on that file click on branch “**main**”.
8. Type a new branch name “**script.md**” and click “**Create branch script.md from main**”

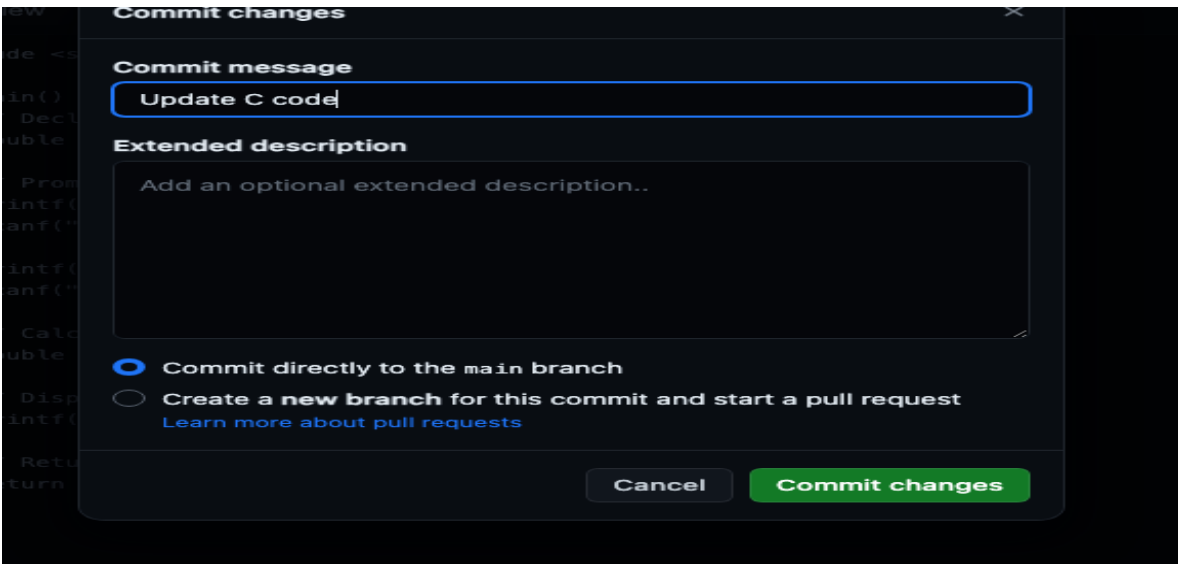




The screenshot shows the GitHub web interface for editing a file named 'main.c' in a repository called 'repo4'. The code is a C program that prompts the user for two numbers, calculates their sum, and prints the result. The code is as follows:

```
1 #include <stdio.h>
2
3 int main() {
4     // Declare variables to store user input
5     double numb1, numb2;
6
7     // Prompt user for input
8     printf("Enter the first number: ");
9     scanf("%lf", &numb1);
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11    printf("Enter the second number: ");
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18    printf("The sum of %.2lf and %.2lf is: %.2lf\n", numb1, numb2, sum);
19
20    // Return 0 to indicate successful completion
21    return 0;
22 }
23
```

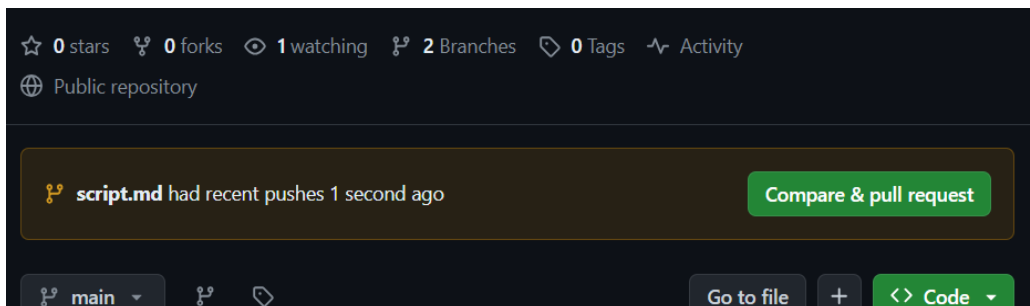
The interface includes tabs for 'Issues', 'Pull requests', 'Actions', 'Projects', 'Wiki', 'Security', 'Insights', and 'Settings'. At the top right, there are buttons for 'Cancel changes' and 'Commit changes...'. Below the code editor, there are settings for 'Spaces' (set to 4) and 'No wrap'.



The screenshot shows the 'Commit changes' dialog box in GitHub. It has a 'Commit message' field with the text 'Update C code' and an 'Extended description' field with the placeholder text 'Add an optional extended description..'. Below these fields, there are two radio button options: 'Commit directly to the main branch' (which is selected) and 'Create a new branch for this commit and start a pull request'. At the bottom, there are 'Cancel' and 'Commit changes' buttons.

9. Add “Commit message” And “Extended description” and then click on “commit changes”

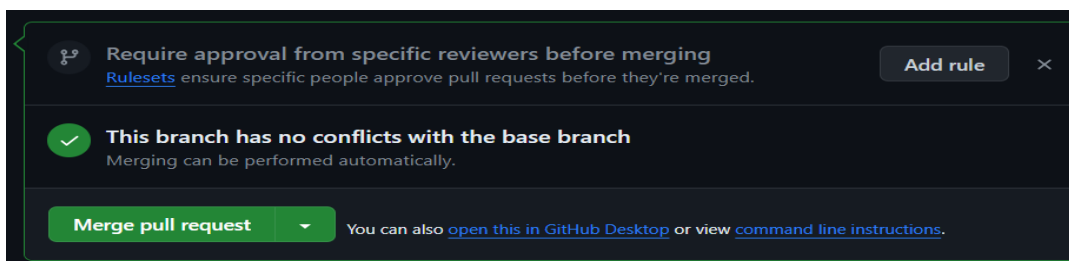
10. After committing the changes go to “parent repository” and click on “compare pull request”.



11. Compare the code of both c and c code.

12. Click on “Create pull request” And add “title and description to code”

13. Click on “Merge pull request”



14. If you want to delete the branch then click on “Delete branch”

Implementation of command bash terminal are as-

```
Last login: Wed Jan 24 10:10:24 on ttys002

The default interactive shell is now zsh.
To update your account to use zsh, please run `chsh -s /bin/zsh`.
For more details, please visit https://support.apple.com/kb/HT208050.
Aditis-MacBook-Air:~ aditipandey$ ls
FirstClass.java  Documents      Library        Pictures        eth2project    java
Applications     Downloads     Movies         Public          gitDemo        new gti
Desktop          Eth.sol       Music          VirtualBox VMs gitdem         repo4
Aditis-MacBook-Air:~ aditipandey$ cd repo4
Aditis-MacBook-Air:repo4 aditipandey$ git pull repo4
From repo4
 * branch          HEAD      -> FETCH_HEAD
Already up to date.
Aditis-MacBook-Air:repo4 aditipandey$ git in it
git: 'in' is not a git command. See 'git --help'.

The most similar commands are
  init
  svn
Aditis-MacBook-Air:repo4 aditipandey$ git branch exp2
Aditis-MacBook-Air:repo4 aditipandey$ git checkout
Your branch is up to date with 'origin/main'.
Aditis-MacBook-Air:repo4 aditipandey$ ls
LICENSE          README.md       repo4
Aditis-MacBook-Air:repo4 aditipandey$ git checkout exp2
Switched to branch 'exp2'
Aditis-MacBook-Air:repo4 aditipandey$ ls
LICENSE          README.md       repo4
Aditis-MacBook-Air:repo4 aditipandey$
```

We use ls,cd and git init command.

```
The most similar commands are
  init
  svn
Aditis-MacBook-Air:repo4 aditipandey$ git branch exp2
Aditis-MacBook-Air:repo4 aditipandey$ git checkout
Your branch is up to date with 'origin/main'.
Aditis-MacBook-Air:repo4 aditipandey$ ls
LICENSE          README.md       repo4
Aditis-MacBook-Air:repo4 aditipandey$ git checkout exp2
Switched to branch 'exp2'
Aditis-MacBook-Air:repo4 aditipandey$ ls
LICENSE          README.md       repo4
Aditis-MacBook-Air:repo4 aditipandey$ vi rep.txt

Aditis-MacBook-Air:repo4 aditipandey$ cd ..
Aditis-MacBook-Air:~ aditipandey$ vi rep.txt
Aditis-MacBook-Air:~ aditipandey$ git add rep.txt git commit -m "Test branch commit"
fatal: Not a git repository (or any of the parent directories): .git
Aditis-MacBook-Air:~ aditipandey$ cd repo4
Aditis-MacBook-Air:repo4 aditipandey$ git add rep.txt git commit -m "test branch"
error: unknown switch `m'
usage: git add [<options>] [--] <paths>...
```

We use git checkout is used to switch between branches in a Git repository then use ls and cd

```
--ignore-missing      check if - even missing - files are ignored in dry run
--chmod <(+/-)x>      override the executable bit of the listed files

Aditis-MacBook-Air:repo4 aditipandey$ git add rep.txt
Aditis-MacBook-Air:repo4 aditipandey$ git commit -m "test branch"
[exp2 5139a5d] test branch
 1 file changed, 1 insertion(+)
 create mode 100644 rep.txt
Aditis-MacBook-Air:repo4 aditipandey$ git status
On branch exp2
Untracked files:
  (use "git add <file>..." to include in what will be committed)

        repo4/

nothing added to commit but untracked files present (use "git add" to track)
Aditis-MacBook-Air:repo4 aditipandey$ file1 file2 file3
-bash: file1: command not found
Aditis-MacBook-Air:repo4 aditipandey$ git push origin
fatal: The current branch exp2 has no upstream branch.
To push the current branch and set the remote as upstream, use

    git push --set-upstream origin exp2

Aditis-MacBook-Air:repo4 aditipandey$ git push repo4 C
error: src refspec C does not match any.
error: failed to push some refs to 'repo4'
Aditis-MacBook-Air:repo4 aditipandey$
```

Here we use git status command to track the status of repo also we are using the git add rep.txt

5. Result/Output/Writing Summary:

In this experiment we installed git, configured it with our GitHub account and write some commands such as clone to pull remote repository to our local machine, cd, touch, ls, pwd.

Learning outcomes (What I have learnt):

1. Learnt how to install git.
2. Learnt how to configure git with GitHub account.
3. Learnt about some basic commands such as cd and cat.
4. Learnt using git clone command.

Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.			
2.			
3.			