

Experiment -1.2

Install Git and creating repository.

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Branch: CSE(devops)

Semester: 4

Subject Name- Git and git hub

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Section/Group:22bcd1 B

Date of Performance: 25jan24

1. Aim/Overview of the practical: Creating branches with GitHub and merge them.

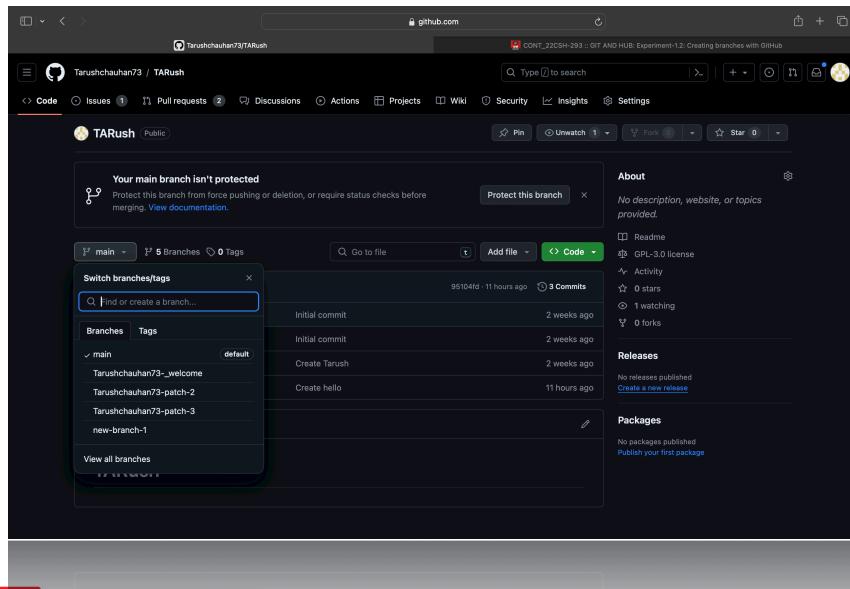
2. Task to be done:

We will make the branches in git hub and in bash and merge them.

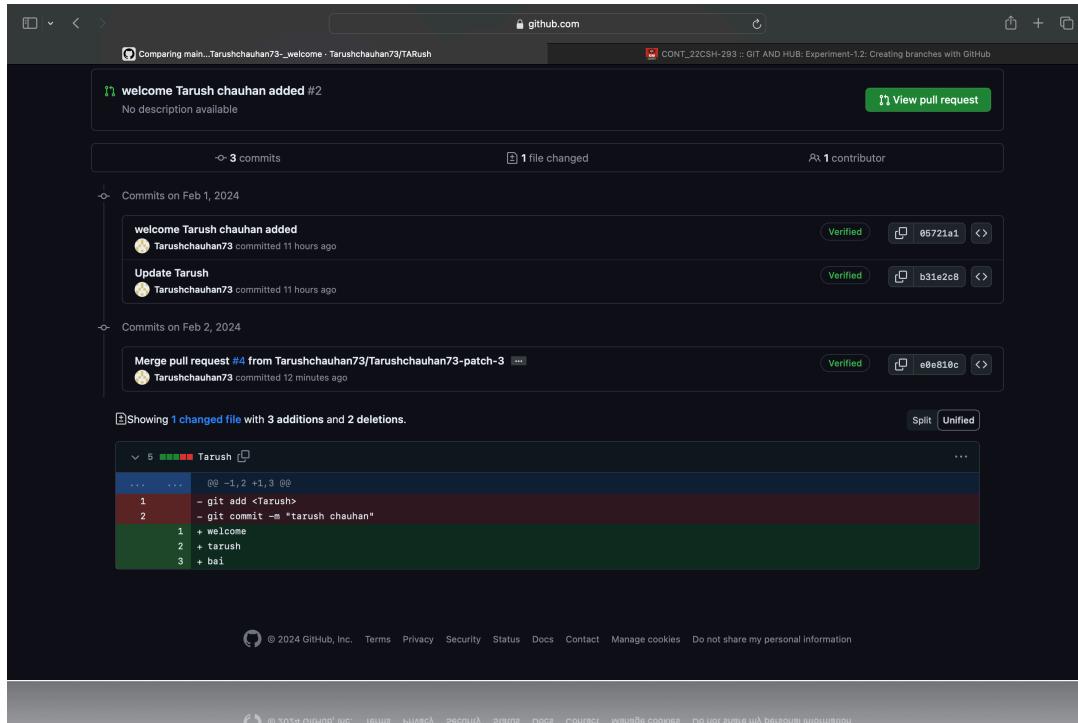
3. Steps -in git hub

1. Open git hub and open your repository.

2. In repository there is the main branch and we make sub branches of that main Branch .

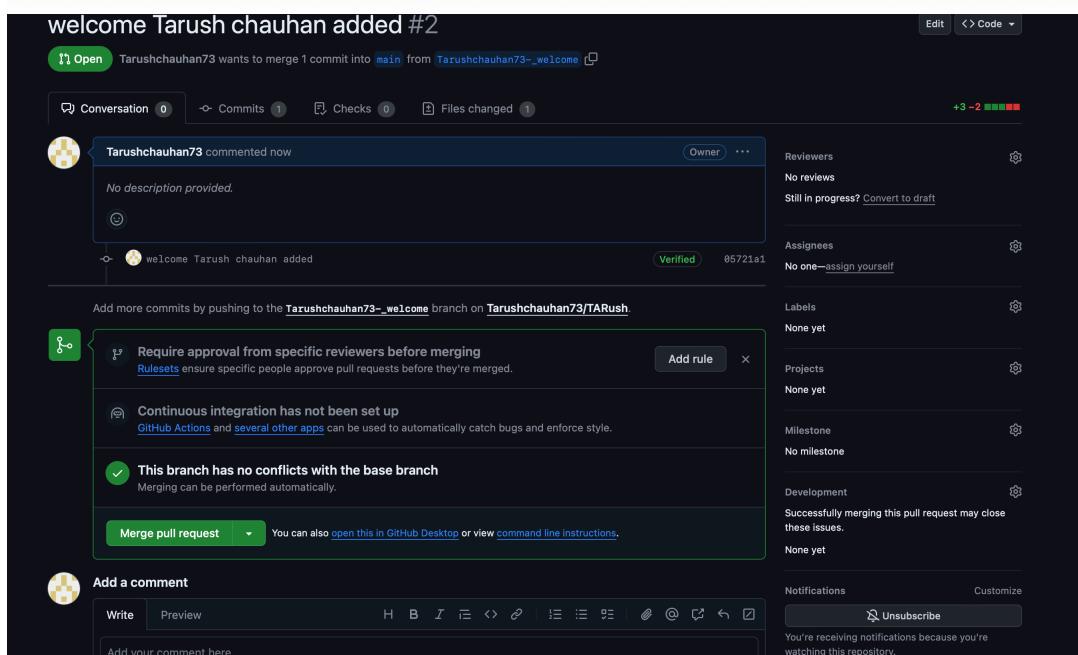


3. When we do some change in the main branch of that repository than the sub branch created .



4. In this picture we make some changes which passes with the green colour.

5. After changing ,create pull request .





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6. The sub branch and the main branch is ready to merge after pulling .

7. After pulling ,it checks for the conflicts .

If conflicts occur it resolve the conflicts automatically.

The screenshot shows a GitHub pull request interface. At the top, the repository is identified as Tarushchauhan73 / TARush. The pull request has 1 commit and 1 file changed. The commit message is "welcome Tarush chauhan added #2". The diff view shows a conflict in the file "Tarush". The commit history shows the following changes:

```
@@ -1,2 +1,3 @@
- git add <Tarush>
- git commit -m "tarush chauhan"
+ welcome
+ tarush
+ chauhan
```

At the bottom of the page, there is a footer with links to GitHub's Terms, Privacy, Security, Status, Docs, Contact, Manage cookies, and a "Do not share my personal information" checkbox.

3 + changes
2 + commits
1 + pull requests



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8. After pull the request merge the file.

The screenshot shows a GitHub pull request merge screen for a repository named 'Update Tarush'. The pull request has been merged by 'Tarushchauhan73' into the 'Tarushchauhan73>Welcome' branch from the 'Tarushchauhan73-patch-3' branch. The commit hash is b31e2c8. The merge was successful, and the pull request is now closed. A message indicates that the branch can be safely deleted. On the right side of the screen, there are various repository settings and status indicators, such as 'Reviewers' (No reviews), 'Assignees' (No one—assign yourself), 'Labels' (None yet), 'Projects' (None yet), 'Milestone' (No milestone), 'Development' (Successfully merging this pull request may close these issues), and 'Notifications' (Unsubscribe). A note at the bottom left says 'Remember, contributions to this repository should follow our GitHub Community Guidelines.'

9. After merging the file it is successfully merged and closed.

10. Our merging task is done successfully.

IN GIT BASH

1. Firstly we configure in the git bash with , git config —user.name “name”
Git config —user.email “email”



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2. Make the clone of that file using, git clone file link.

The screenshot shows a GitHub repository named 'TARush' owned by 'Tarushchauhan73'. The repository has 5 branches and 0 tags. The 'Code' tab is selected, showing options for cloning via HTTPS, SSH, or GitHub CLI. The GitHub CLI option is highlighted. The URL 'https://github.com/Tarushchauhan73/TARush' is displayed. Below the cloning options, there are links for 'Open with GitHub Desktop' and 'Download ZIP'.

```
tarushchauhan@Tarush-MacBook-Air Tarush % git config --global user.email "tarushchauhan19@gmail.com"
tarushchauhan@Tarush-MacBook-Air Tarush % git branch
fatal: not a git repository (or any of the parent directories): .git
tarushchauhan@Tarush-MacBook-Air Tarush % git branch mainbranch
fatal: not a git repository (or any of the parent directories): .git
tarushchauhan@Tarush-MacBook-Air Tarush % git clone https://github.com/Tarushchauhan73/TARush.git
Cloning into 'TARush'.
remote: Enumerating objects: 20, done.
remote: Counting objects: 100% (20/20), done.
remote: Compressing objects: 100% (14/14), done.
remote: Total 20 (delta 0), pack-reused 0
Received objects: 100% (20/20), 18.02 KiB | 16.00 KiB/s, done.
Resolving deltas: 100% (5/5), done.
tarushchauhan@Tarush-MacBook-Air Tarush % cd TARush
tarushchauhan@Tarush-MacBook-Air Tarush % git branch
* main
tarushchauhan@Tarush-MacBook-Air TARush % git branch featurebranch
(tarushchauhan@Tarush-MacBook-Air TARush % git branch
* featurebranch
* main)
tarushchauhan@Tarush-MacBook-Air TARush % git checkout featurebranch
Switched to branch 'featurebranch'
tarushchauhan@Tarush-MacBook-Air TARush % git branch
* featurebranch
main
tarushchauhan@Tarush-MacBook-Air TARush % git checkout -b subbranch
Switched to a new branch 'subbranch'
tarushchauhan@Tarush-MacBook-Air TARush % git branch
* featurebranch
main
tarushchauhan@Tarush-MacBook-Air TARush % git delete featurebranch
git: 'delete' is not a git command. See 'git --help'.
tarushchauhan@Tarush-MacBook-Air TARush % git rm -f featurebranch
rm: pathspec 'featurebranch' did not match any files
tarushchauhan@Tarush-MacBook-Air TARush % git branch --delete featurebranch
Deleted branch featurebranch (was 95104fd)
tarushchauhan@Tarush-MacBook-Air TARush % git branch
* main
* subbranch
tarushchauhan@Tarush-MacBook-Air TARush % git status
On branch subbranch
nothing to commit, working tree clean
tarushchauhan@Tarush-MacBook-Air TARush % git log
commit 95104fd1c1a57d933a5c98d4731573cdff8b65dd9 (HEAD -> subbranch, origin/main, origin/HEAD, main)
Author: Tarush chauhan <156651561@tarushchauhan73@users.noreply.github.com>
Date:   Thu Feb 1 21:53:09 2024 +0530

Create Tarush

commit a991984b0a41dea350e32df937b9d7cfb69340ba (origin/new-branch-1)
Author: Tarush chauhan <156651561@tarushchauhan73@users.noreply.github.com>
Date:   Fri Jan 19 15:02:14 2024 +0530

Initial commit
tarushchauhan@Tarush-MacBook-Air TARush %
```



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3. Change directory using cd filename.

```
[tarushchauhan@Tarushs-MacBook-Air ~ % cd TARush
[tarushchauhan@Tarushs-MacBook-Air TARush % ls
TARush
[tarushchauhan@Tarushs-MacBook-Air TARush % touch f1 f2 f3
[tarushchauhan@Tarushs-MacBook-Air TARush % ls
TARush  f1    f2    f3
[tarushchauhan@Tarushs-MacBook-Air TARush % cat >f1
tarush chauhan is a student of chandigarh university

[:wq %
tarushchauhan@Tarushs-MacBook-Air TARush % cat f1
tarush chauhan is a student of chandigarh university

:wq

[tarushchauhan@Tarushs-MacBook-Air TARush % git add .
warning: adding embedded git repository: Tarush/TARush
hint: You've added another git repository inside your current repository.
hint: Clones of the outer repository will not contain the contents of
hint: the embedded repository and will not know how to obtain it.
hint: If you meant to add a submodule, use:
hint:
hint: git submodule add <url> Tarush/TARush
hint:
hint: If you added this path by mistake, you can remove it from the
hint: index with:
hint:
hint: git rm --cached Tarush/TARush
hint:
```

4. Make the file using touch .

We make three files f1,f2,f3.

```
[tarushchauhan@Tarushs-MacBook-Air ~ % cd TARush
[tarushchauhan@Tarushs-MacBook-Air TARush % ls
TARush
[tarushchauhan@Tarushs-MacBook-Air TARush % touch f1 f2 f3
[tarushchauhan@Tarushs-MacBook-Air TARush % ls
TARush  f1    f2    f3
[tarushchauhan@Tarushs-MacBook-Air TARush % cat >f1
tarush chauhan is a student of chandigarh university

[:wq %
tarushchauhan@Tarushs-MacBook-Air TARush % cat f1
tarush chauhan is a student of chandigarh university

:wq

[tarushchauhan@Tarushs-MacBook-Air TARush % git add .
warning: adding embedded git repository: Tarush/TARush
hint: You've added another git repository inside your current repository.
hint: Clones of the outer repository will not contain the contents of
hint: the embedded repository and will not know how to obtain it.
hint: If you meant to add a submodule, use:
hint:
hint: git submodule add <url> Tarush/TARush
hint:
hint: If you added this path by mistake, you can remove it from the
hint: index with:
hint:
hint: git rm --cached Tarush/TARush
hint:
```

5. After making the file, write into the file using cat(concatenate) command.



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6. After write into the file use git add command to add three files .

```
[tarushchauhan@Tarushs-MacBook-Air TARush % git add .
warning: adding embedded git repository: Tarush/TARush
hint: You've added another git repository inside your current repository.
hint: Clones of the outer repository will not contain the contents of
hint: the embedded repository and will not know how to obtain it.
hint: If you meant to add a submodule, use:
hint:
hint:   git submodule add <url> Tarush/TARush
hint:
hint: If you added this path by mistake, you can remove it from the
hint: index with:
```

7. To save the file we use commit command.

8. For switching the branches we use checkout command.

```
5 files changed, 7 insertions(+)
create mode 100644 Tarush/.DS_Store
create mode 160800 Tarush/TARush
create mode 100644 Tarush/f1
create mode 100644 Tarush/f2
create mode 100644 Tarush/f3
[tarushchauhan@Tarushs-MacBook-Air TARush % git checkout -b exp2
Switched to a new branch 'exp2'
tarushchauhan@Tarushs-MacBook-Air TARush % ls
TARush f1 f2 f3
tarushchauhan@Tarushs-MacBook-Air TARush % cat f1
tarush chauhan is a student of chandigarh university

:wd

[tarushchauhan@Tarushs-MacBook-Air TARush % cat >f1
this is after updating in branch
tarushchauhan@Tarushs-MacBook-Air TARush % git add .
tarushchauhan@Tarushs-MacBook-Air TARush % git commit -m "version2"
[exp2 d86537a] version2
 1 file changed, 1 insertion(+), 6 deletions(-)
[tarushchauhan@Tarushs-MacBook-Air TARush % git checkout TARush
Updated 0 paths from the index
tarushchauhan@Tarushs-MacBook-Air TARush % git merge exp2
Already up to date.
tarushchauhan@Tarushs-MacBook-Air TARush % pwd
/Users/tarushchauhan/TARush
tarushchauhan@Tarushs-MacBook-Air TARush % cat f1
this is after updating in branch

Last login: Fri Feb  2 11:25:16 on ttys000
tarushchauhan@Tarushs-MacBook-Air ~ % git init
Reinitialized existing Git repository in /Users/tarushchauhan/.git/
tarushchauhan@Tarushs-MacBook-Air ~ % ls
Applications          Downloads          Music          Pictures          Tarush          Virtual Machines.localized          clangtut1.c
Documents           Movies           Public          Pictures          Virtual Machines.localized          git_welcome
Desktop             Library          Public          Public          c_languagetuts          venv

[tarushchauhan@Tarushs-MacBook-Air ~ % cd TARush
[tarushchauhan@Tarushs-MacBook-Air TARush % ls
TARush
[tarushchauhan@Tarushs-MacBook-Air TARush % touch f1 f2 f3
[tarushchauhan@Tarushs-MacBook-Air TARush % ls
TARush f1 f2 f3
tarushchauhan@Tarushs-MacBook-Air TARush % cat >f1
tarush chauhan is a student of chandigarh university

Last login: Fri Feb  2 11:25:16 on ttys000
tarushchauhan@Tarushs-MacBook-Air ~ % git init
Reinitialized existing Git repository in /Users/tarushchauhan/.git/
tarushchauhan@Tarushs-MacBook-Air ~ % ls
Applications          Downloads          Music          Pictures          Tarush          Virtual Machines.localized          clangtut1.c
Documents           Movies           Public          Pictures          Virtual Machines.localized          git_welcome
Desktop             Library          Public          Public          c_languagetuts          venv

[tarushchauhan@Tarushs-MacBook-Air ~ % cd TARush
[tarushchauhan@Tarushs-MacBook-Air TARush % ls
TARush
[tarushchauhan@Tarushs-MacBook-Air TARush % touch f1 f2 f3
[tarushchauhan@Tarushs-MacBook-Air TARush % ls
TARush f1 f2 f3
tarushchauhan@Tarushs-MacBook-Air TARush % cat >f1
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```

9. We use ls command to list all file .

10. Do some changes in the f1 file using cat command .



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11. After doing catenation and checkout ,we have to commit the changes and after committing it shows all the updatation ,deletion etc.

```
[tarushchauhan@Tarushs-MacBook-Air TARush % cat >f1
[this is after updating in branch%
tarushchauhan@Tarushs-MacBook-Air TARush % git add .
[tarushchauhan@Tarushs-MacBook-Air TARush % git commit -m "version2"
[exp2 d86537a] version2
 1 file changed, 1 insertion(+), 6 deletions(-)
[tarushchauhan@Tarushs-MacBook-Air TARush % git checkout TARush
 Updated 0 paths from the index
[tarushchauhan@Tarushs-MacBook-Air TARush % git merge exp2
```

12. Than we have to merge the files.

13. After merging the file we have to check the status using git status command.

```
tarushchauhan@Tarushs-MacBook-Air TARush % cat f1
this is after updating in branch%
tarushchauhan@Tarushs-MacBook-Air TARush % git status
warning: could not open directory '.Trash/': Operation not permitted
On branch exp2
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)
  (commit or discard the untracked or modified content in submodules)
    modified:   TARush (modified content, untracked content)

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    .../.bzrdir/textencoding
    .../.DS_Store
    .../.bash_history
    .../.bashrc
    .../.cache/
    .../.gitconfig
    .../.lessht
    .../.local/
    .../.m2/
    .../.vscode/
    .../.zprofile
    .../.zsh_history
    .../.zsh_sessions
    .../.zshrc
    .../Applications/
    .../Desktop/
    .../Documents/
    .../Downloads/
    .../Music/
    .../Pictures/
    .../Public/
    .../Virtual Machines.localized/
    .../clangtut1.c
    .../git_welcome/
    .../venv/

It took 8.33 seconds to enumerate untracked files.
See 'git help status' for information on how to improve this.

no changes added to commit (use "git add" and/or "git commit -a")
tarushchauhan@Tarushs-MacBook-Air TARush %
```

```
Last login: Fri Feb  2 11:25:16 on ttys000
tarushchauhan@Tarushs-MacBook-Air ~ % git init
Reinitialized existing Git repository in /Users/tarushchauhan/.git/
tarushchauhan@Tarushs-MacBook-Air ~ % ls
Applications          Downloads          Music           Tarush
Desktop              Library           Pictures        Virtual Machines.localized
Documents            Movies            Public          clangtut1.c
tarushchauhan@Tarushs-MacBook-Air ~ % cd TARush
tarushchauhan@Tarushs-MacBook-Air TARush % ls
TARush
tarushchauhan@Tarushs-MacBook-Air TARush % touch f1 f2 f3
tarushchauhan@Tarushs-MacBook-Air TARush % ls
TARush   f1   f2   f3
tarushchauhan@Tarushs-MacBook-Air TARush % cat >f1
tarush chauhan is a student of chandigarh university
```

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Learning outcomes (What I have learnt):

1. Learnt about GitHub.
2. Learnt about Git.
3. Learnt about various git commands that can be applied on Git Bash.
4. Learnt about how to create repositories.
5. Learnt about how to pull request and push source code /files etc.

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.			