Semester	T.E. Semester VI – INFT
Subject	DevOps Theory
Laboratory Teacher:	Prof. Bushra Shaikh
Laboratory	Class Assignment

Student Name	Yash Pagar	
Roll Number	22101A0022	
Grade and Subject Teacher's Signature		

Assigbment Number	02	
Experiment Title	Github Collaboration Activity	
Problem Statement	As TechCo's development team grows, it becomes critical to handle code changes efficiently. You need to master the key Git operations for collaborating on code across multiple team members. Design a Git workflow for a team of 5 developers working on a shared project. The workflow should include branching strategies and pull request reviews.	
Resources / Apparatus Required	Hardware: Desktop/Laptop	Software: Terminal

Output:

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS   zsh - demo

```
yashpagar@YASHs-MacBook-Air GitDemo % ls
yashpagar@YASHs-MacBook-Air GitDemo % pwd
/Users/yashpagar/Downloads/Web Development/GitDemo
yashpagar@YASHs-MacBook-Air GitDemo % git --version
git version 2.48.0
yashpagar@YASHs-MacBook-Air GitDemo % git config --list
credential.helper=osxkeychain
user.name=Yash Pagar
user.email=patilashu3403@gmail.com
yashpagar@YASHs-MacBook-Air GitDemo % git config-- global user.name "Pagaryash"
git: 'config--' is not a git command. See 'git --help'.
yashpagar@YASHs-MacBook-Air GitDemo % git config --global user.name "Pagaryash"
yashpagar@YASHs-MacBook-Air GitDemo % git config --global user.email "yashpagar34@gmail.com"
yashpagar@YASHs-MacBook-Air GitDemo % git config --list
credential.helper=osxkeychain
user.name=Pagaryash
user.email=yashpagar34@gmail.com
yashpagar@YASHs-MacBook-Air GitDemo % git clone https://github.com/Pagaryash/demo.git
Cloning into 'demo'...
remote: Enumerating objects: 6, done.
remote: Counting objects: 100% (6/6), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 6 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
Receiving objects: 100% (6/6), done.
yashpagar@YASHs-MacBook-Air GitDemo % ls
demo
yashpagar@YASHs-MacBook-Air GitDemo % cd demo
yashpagar@YASHs-MacBook-Air demo % ls
README.md
yashpagar@YASHs-MacBook-Air demo % ls -a
.         ..            .git          README.md
yashpagar@YASHs-MacBook-Air demo % []
```

Ln 1, Col 1   Spaces: 4   UTF-8   LF   CSS

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS   zsh

```
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:   README.md

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

no changes added to commit (use "git add" and/or "git commit -a")
yashpagar@YASHs-MacBook-Air demo % git add README.md
yashpagar@YASHs-MacBook-Air demo % git status
On branch main
Your branch is up to date with 'origin/main'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   README.md

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

yashpagar@YASHs-MacBook-Air demo % git add index.html
yashpagar@YASHs-MacBook-Air demo % git status
On branch main
Your branch is up to date with 'origin/main'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   README.md
        new file:   index.html

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

yashpagar@YASHs-MacBook-Air demo % git add .
yashpagar@YASHs-MacBook-Air demo % git status
On branch main
Your branch is up to date with 'origin/main'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   README.md
        new file:   index.html
        new file:   style.css

yashpagar@YASHs-MacBook-Air demo % []
```

Ln 1, Col 1   Spaces: 4   UTF-8   LF   Markdown

```
yashpagar@YASHs-MacBook-Air demo % git commit -m "Add new files"
[main 52896d3] Add new files
 3 files changed, 14 insertions(+)
 create mode 100644 index.html
 create mode 100644 style.css
yashpagar@YASHs-MacBook-Air demo % git status
On branch main
Your branch is ahead of 'origin/main' by 1 commit.
  (use "git push" to publish your local commits)

nothing to commit, working tree clean
yashpagar@YASHs-MacBook-Air demo % git push origin main
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 8 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (5/5), 540 bytes | 540.00 KiB/s, done.
Total 5 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/Pagaryash/demo.git
   1202a9c..52896d3  main -> main
yashpagar@YASHs-MacBook-Air demo % []
```

Ln 1, Col 1   Spaces: 4   UTF-8   LF   Markdown

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS   zsh - project2

```
yashpagar@YASHs-MacBook-Air demo % cd--
zsh: command not found: cd--
yashpagar@YASHs-MacBook-Air demo % cd ..
yashpagar@YASHs-MacBook-Air GitDemo % ls
Screenshot 2025-01-20 at 10.42.32 AM.png        demo
yashpagar@YASHs-MacBook-Air GitDemo % mkdir project2
yashpagar@YASHs-MacBook-Air GitDemo % ls
Screenshot 2025-01-20 at 10.42.32 AM.png        project2
demo
yashpagar@YASHs-MacBook-Air GitDemo % cd project2
yashpagar@YASHs-MacBook-Air project2 % ls
yashpagar@YASHs-MacBook-Air project2 % ls -a
.         ..
yashpagar@YASHs-MacBook-Air project2 % []
```

```
○ yashpagar@YASHs-MacBook-Air project2 %
● yashpagar@YASHs-MacBook-Air project2 % git init
hint: Using 'master' as the name for the initial branch. This default branch name
hint: is subject to change. To configure the initial branch name to use in all
hint: of your new repositories, which will suppress this warning, call:
hint:
hint:   git config --global init.defaultBranch <name>
hint:
hint: Names commonly chosen instead of 'master' are 'main', 'trunk' and
hint: 'development'. The just-created branch can be renamed via this command:
hint:
hint:   git branch -m <name>
Initialized empty Git repository in /Users/yashpagar/Downloads/Web Development/GitDemo/project2/.git/
● yashpagar@YASHs-MacBook-Air project2 % ls -a
.       ..       .git
○ yashpagar@YASHs-MacBook-Air project2 %
```

```
● yashpagar@YASHs-MacBook-Air project2 % touch index.html
● yashpagar@YASHs-MacBook-Air project2 % touch README.md
● yashpagar@YASHs-MacBook-Air project2 % git status
On branch master

No commits yet

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

nothing added to commit but untracked files present (use "git add" to track)
● yashpagar@YASHs-MacBook-Air project2 % git add .
● yashpagar@YASHs-MacBook-Air project2 % git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   README.md
        new file:   index.html

○ yashpagar@YASHs-MacBook-Air project2 %
```
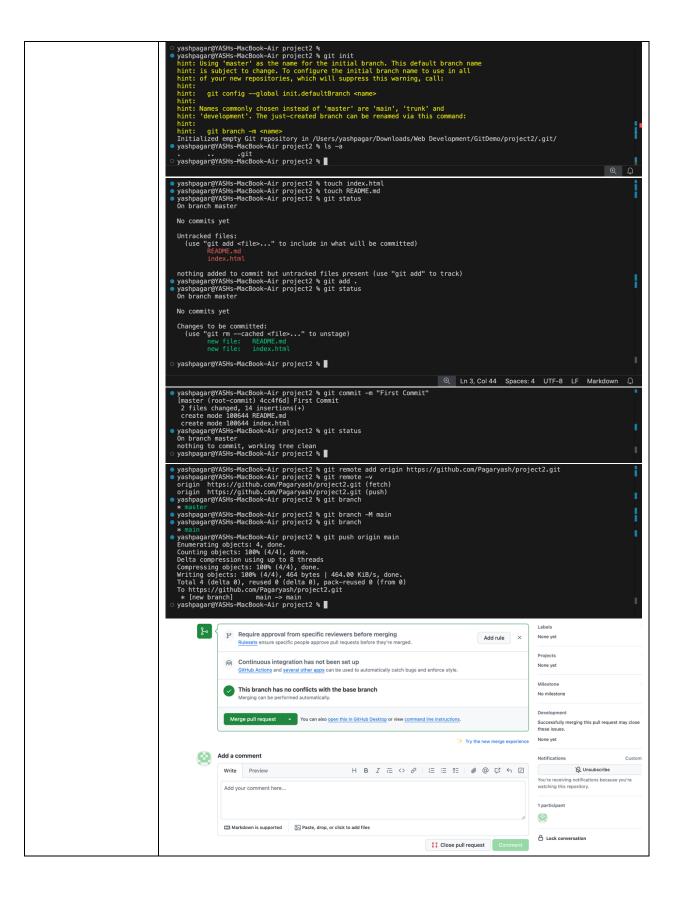
`Ln 3, Col 44    Spaces: 4    UTF-8    LF    Markdown`

```
● yashpagar@YASHs-MacBook-Air project2 % git commit -m "First Commit"
[master (root-commit) 4cc4f6d] First Commit
 2 files changed, 14 insertions(+)
 create mode 100644 README.md
 create mode 100644 index.html
● yashpagar@YASHs-MacBook-Air project2 % git status
On branch master
nothing to commit, working tree clean
○ yashpagar@YASHs-MacBook-Air project2 %
```

```
● yashpagar@YASHs-MacBook-Air project2 % git remote add origin https://github.com/Pagaryash/project2.git
● yashpagar@YASHs-MacBook-Air project2 % git remote -v
origin  https://github.com/Pagaryash/project2.git (fetch)
origin  https://github.com/Pagaryash/project2.git (push)
● yashpagar@YASHs-MacBook-Air project2 % git branch
* master
● yashpagar@YASHs-MacBook-Air project2 % git branch -M main
● yashpagar@YASHs-MacBook-Air project2 % git branch
* main
● yashpagar@YASHs-MacBook-Air project2 % git push origin main
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 8 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (4/4), 464 bytes | 464.00 KiB/s, done.
Total 4 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/Pagaryash/project2.git
 * [new branch]      main -> main
○ yashpagar@YASHs-MacBook-Air project2 %
```

Require approval from specific reviewers before merging   [Add rule] ✕
Rulesets ensure specific people approve pull requests before they're merged.

Continuous integration has not been set up
GitHub Actions and several other apps can be used to automatically catch bugs and enforce style.

✓ **This branch has no conflicts with the base branch**
Merging can be performed automatically.

[Merge pull request ▾]   You can also open this in GitHub Desktop or view command line instructions.

✨ Try the new merge experience

Add a comment

Write   Preview   H B I ☰ <> 🔗 | ⅛≡ ☰ ☲ | 📎 @ ⤢ ↩ ☑

Add your comment here...

📖 Markdown is supported   🖼 Paste, drop, or click to add files

[⧉ Close pull request]   [Comment]

Labels
None yet

Projects
None yet

Milestone
No milestone

Development
Successfully merging this pull request may close these issues.
None yet

Notifications   Custom
[🔕 Unsubscribe]
You're receiving notifications because you're watching this repository.

1 participant

Lock conversation

```
PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS          >_ zsh - project2   +  ⅂  ▢  ⌃  ✕

yashpagar@YASHs-MacBook-Air project2 % git branch
* feature
  main
yashpagar@YASHs-MacBook-Air project2 % git diff main
diff --git a/app.js b/app.js
new file mode 100644
index 0000000..fdc1dda
--- /dev/null
+++ b/app.js
@@ -0,0 +1 @@
+// add new feature
\ No newline at end of file
yashpagar@YASHs-MacBook-Air project2 % git diff feature
yashpagar@YASHs-MacBook-Air project2 % ▯
```

```
PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS          >_ zsh - project2   +  ⅂  ▢  ⌃  ✕

yashpagar@YASHs-MacBook-Air project2 % git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
yashpagar@YASHs-MacBook-Air project2 % git pull origin main
remote: Enumerating objects: 1, done.
remote: Counting objects: 100% (1/1), done.
remote: Total 1 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (1/1), 889 bytes | 444.00 KiB/s, done.
From https://github.com/Pagaryash/project2
 * branch            main       -> FETCH_HEAD
   d0a7e30..a37212e  main       -> origin/main
Updating d0a7e30..a37212e
Fast-forward
 app.js | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 app.js
yashpagar@YASHs-MacBook-Air project2 % ▮
```

```
⊗ yashpagar@YASHs-MacBook-Air GitDemo % git status
fatal: not a git repository (or any of the parent directories): .git
● yashpagar@YASHs-MacBook-Air GitDemo % cd project2
● yashpagar@YASHs-MacBook-Air project2 % git status
On branch main
Your branch is up to date with 'origin/main'.

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:   app.js

no changes added to commit (use "git add" and/or "git commit -a")
● yashpagar@YASHs-MacBook-Air project2 % git add .
● yashpagar@YASHs-MacBook-Air project2 % git status
On branch main
Your branch is up to date with 'origin/main'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   app.js

⊗ yashpagar@YASHs-MacBook-Air project2 % git rest app.js
git: 'rest' is not a git command. See 'git --help'.

The most similar commands are
        restore
        reset
● yashpagar@YASHs-MacBook-Air project2 % git reset app.js
Unstaged changes after reset:
M       app.js
● yashpagar@YASHs-MacBook-Air project2 % git status
On branch main
Your branch is up to date with 'origin/main'.

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:   app.js

no changes added to commit (use "git add" and/or "git commit -a")
● yashpagar@YASHs-MacBook-Air project2 % git commit -am "Commit Mistake"
[main dbadeed] Commit Mistake
 1 file changed, 2 insertions(+), 1 deletion(-)
● yashpagar@YASHs-MacBook-Air project2 % git reset HEAD~1
Unstaged changes after reset:
M       app.js
```

```
● yashpagar@YASHs-MacBook-Air project2 % git status
  On branch main
  Your branch is up to date with 'origin/main'.

  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:   app.js

  no changes added to commit (use "git add" and/or "git commit -a")
○ yashpagar@YASHs-MacBook-Air project2 % git log
  commit af569f0c3f38ae6093780e7072742d20dbd358a9 (HEAD -> main, origin/main)
  Merge: 7557ad6 d273723
  Author: Pagaryash <yashpagar34@gmail.com>
  Date:   Wed Jan 22 14:46:24 2025 +0530

      merge woth feature

  commit d273723342256de5b4092936bf8c0e7c15e2e129 (feature)
  Author: Pagaryash <yashpagar34@gmail.com>
  Date:   Wed Jan 22 14:42:42 2025 +0530

      add a form

  commit 7557ad60895c12808f6b5489378cfb933401005a
  Author: Pagaryash <yashpagar34@gmail.com>
  Date:   Wed Jan 22 14:40:58 2025 +0530

      add new button

  :...skipping...
  commit af569f0c3f38ae6093780e7072742d20dbd358a9 (HEAD -> main, origin/main)
  Merge: 7557ad6 d273723
  Author: Pagaryash <yashpagar34@gmail.com>
  Date:   Wed Jan 22 14:46:24 2025 +0530

      merge woth feature

  commit d273723342256de5b4092936bf8c0e7c15e2e129 (feature)
  Author: Pagaryash <yashpagar34@gmail.com>
  Date:   Wed Jan 22 14:42:42 2025 +0530

      add a form

  commit 7557ad60895c12808f6b5489378cfb933401005a
  Author: Pagaryash <yashpagar34@gmail.com>
  Date:   Wed Jan 22 14:40:58 2025 +0530

      add new button

  commit a37212efe010b559ecee8dcb82a68e8da2f1bf2a
  Merge: d0a7e30 cba2f5b
  :...skipping...
  commit af569f0c3f38ae6093780e7072742d20dbd358a9 (HEAD -> main, origin/main)
  Merge: 7557ad6 d273723
  Author: Pagaryash <yashpagar34@gmail.com>
  Date:   Wed Jan 22 14:46:24 2025 +0530
```

```
● yashpagar@YASHs-MacBook-Air project2 % git reset af569f0c3f38ae6093780e7072742d20dbd358a9
  Unstaged changes after reset:
  M       app.js
○ yashpagar@YASHs-MacBook-Air project2 %
```

```
● yashpagar@YASHs-MacBook-Air project2 % git branch
  * main
● yashpagar@YASHs-MacBook-Air project2 % git checkout -b feature
  Switched to a new branch 'feature'
● yashpagar@YASHs-MacBook-Air project2 % git branch
  * feature
    main
● yashpagar@YASHs-MacBook-Air project2 % git checkout main
  Switched to branch 'main'
  Your branch is up to date with 'origin/main'.
● yashpagar@YASHs-MacBook-Air project2 % git checkout feature
  Switched to branch 'feature'
● yashpagar@YASHs-MacBook-Air project2 % git checkout -b test
  Switched to a new branch 'test'
● yashpagar@YASHs-MacBook-Air project2 % git branch
    feature
    main
  * test
● yashpagar@YASHs-MacBook-Air project2 % git checkout main
  Switched to branch 'main'
  Your branch is up to date with 'origin/main'.
● yashpagar@YASHs-MacBook-Air project2 % git branch -d test
  Deleted branch test (was d0a7e30).
● yashpagar@YASHs-MacBook-Air project2 % git branch
    feature
  * main
⊗ yashpagar@YASHs-MacBook-Air project2 % git branch feature
  fatal: a branch named 'feature' already exists
● yashpagar@YASHs-MacBook-Air project2 % git checkout feature
  Switched to branch 'feature'
● yashpagar@YASHs-MacBook-Air project2 % git branch
  * feature
    main
● yashpagar@YASHs-MacBook-Air project2 % git status
  On branch feature
  Untracked files:
    (use "git add <file>..." to include in what will be committed)
          app.js

  nothing added to commit but untracked files present (use "git add" to track)
● yashpagar@YASHs-MacBook-Air project2 % git add .
● yashpagar@YASHs-MacBook-Air project2 % git commit -m "add new feature"
  [feature cba2f5b] add new feature
   1 file changed, 1 insertion(+)
   create mode 100644 app.js
● yashpagar@YASHs-MacBook-Air project2 % git status
  On branch feature
  nothing to commit, working tree clean
● yashpagar@YASHs-MacBook-Air project2 % git checkout main
  Switched to branch 'main'
  Your branch is up to date with 'origin/main'.
● yashpagar@YASHs-MacBook-Air project2 % git push
  Everything up-to-date
● yashpagar@YASHs-MacBook-Air project2 % git checkout feature
  Switched to branch 'feature'
⊗ yashpagar@YASHs-MacBook-Air project2 % git push
  fatal: The current branch feature has no upstream branch.
  To push the current branch and set the remote as upstream, use

      git push --set-upstream origin feature

  To have this happen automatically for branches without a tracking
  upstream, see 'push.autoSetupRemote' in 'git help config'.

● yashpagar@YASHs-MacBook-Air project2 % git push --set-upstream origin feature
  Enumerating objects: 4, done.
  Counting objects: 100% (4/4), done.
  Delta compression using up to 8 threads
  Compressing objects: 100% (2/2), done.
  Writing objects: 100% (3/3), 330 bytes | 330.00 KiB/s, done.
  Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
  remote:
  remote: Create a pull request for 'feature' on GitHub by visiting:
  remote:      https://github.com/Pagaryash/project2/pull/new/feature
  remote:
  To https://github.com/Pagaryash/project2.git
   * [new branch]      feature -> feature
  branch 'feature' set up to track 'origin/feature'.
💡 yashpagar@YASHs-MacBook-Air project2 %
```

project2 Public

Pin Unwatch 1

 feature had recent pushes 4 minutes ago

Compare & pull request

 feature ▾   2 Branches   0 Tags

Go to file t   Add file ▾   <> Code ▾

This branch is 1 commit ahead of main .

Contribute ▾

Pagaryash add new feature

cba2f5b · 12 minutes ago   6 Commits

README.md	new learning	yesterday
app.js	add new feature	12 minutes ago
index.html	First Commit	yesterday

Open a pull request

Create a new pull request by comparing changes across two branches. If you need to, you can also compare across forks. Learn more about diff comparisons here.

 base: main ▾ ← compare: feature ▾   ✓ Able to merge. These branches can be automatically merged.

Add a title

add new feature

Add a description

| Write | Preview |

H B I ⊞ <> 🔗 ⊞ ⊞ ⊞ 📎 @ ⬀ ↩ ⊡

Add your description here...

 Markdown is supported   Paste, drop, or click to add files

Reviewers   ⚙
No reviews

Assignees   ⚙
No one—assign yourself

Labels   ⚙
None yet

Projects   ⚙
None yet

Milestone   ⚙
No milestone

Development
Use Closing keywords in the description to