

1032210806 - Stuti Mahajan  
FSD - Lab Assignment 1.

### Theory →

1. What is Git? What is version control?  
→ Git is a distributed version control system that helps developer track & manage changes to files in a project. It allows collaboration by enabling multiple users to work on the same project simultaneously.

Version control is a system that records changes to files over time, allowing you to recall specific versions, collaborate efficiently, and manage code evolution.

2. How to use Git for version controlling?

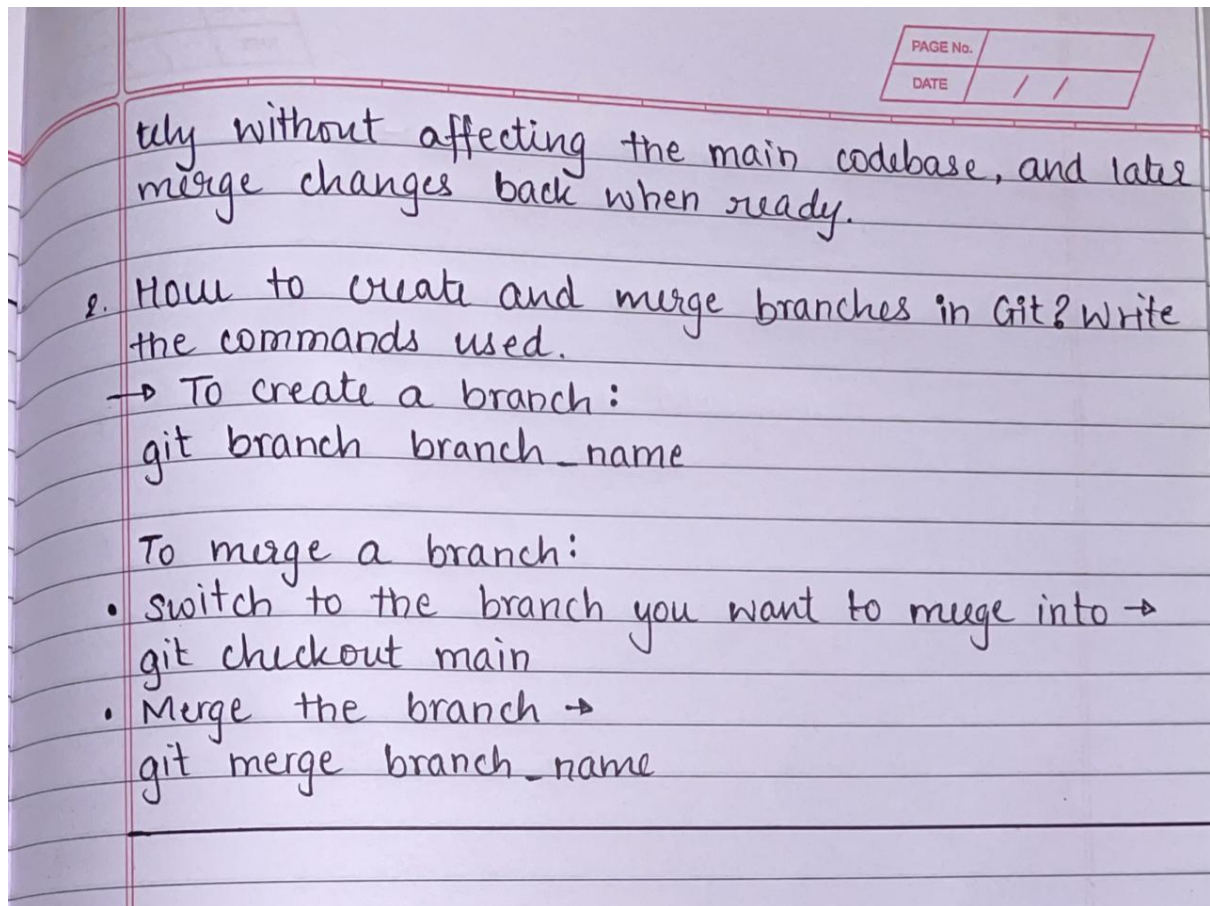
→ To use Git for version control :

- a. Initialize a repository with 'git init'.
- b. add files using 'git add'.
- c. Save changes with 'git commit -m "message"'.  
d. Push the changes to a remote repository using 'git push' & pull updates with 'git pull' for collaboration.

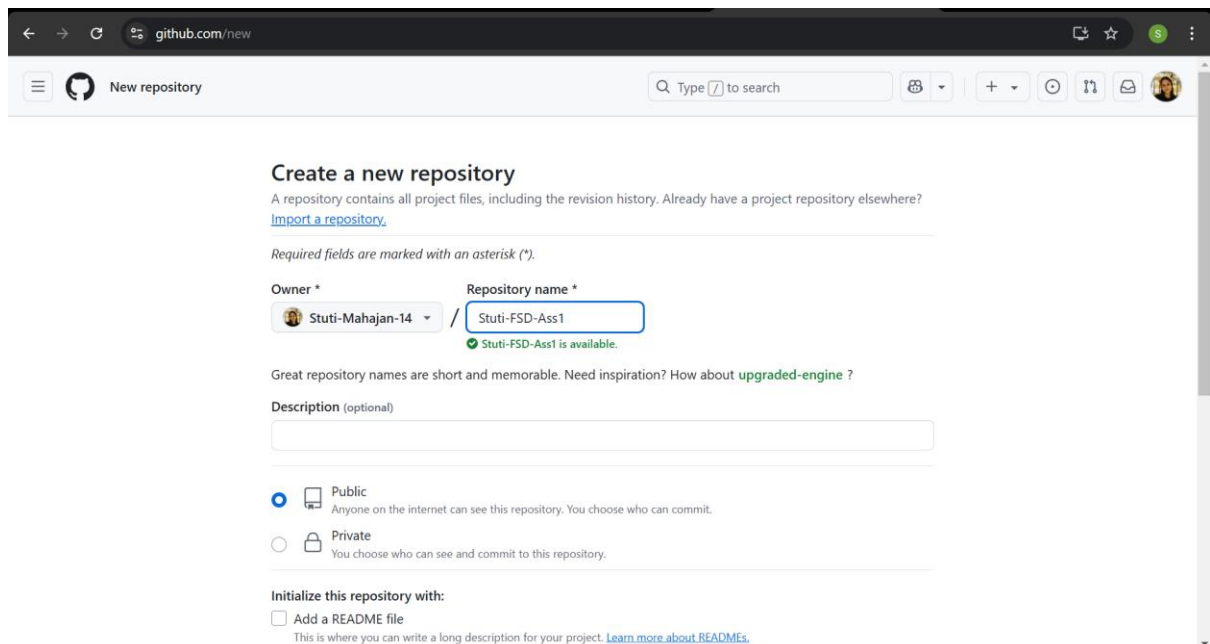
### FAQ →

1. What is branching in Git?

→ Branching in Git allows us to create independent lines of development within a repository. It enables you to work on features, fixes / experiments sepa



### SCREENSHOTS OF OUTPUT:



```
Command Prompt
Microsoft Windows [Version 10.0.22631.4602]
(c) Microsoft Corporation. All rights reserved.

C:\Users\conne>git clone https://github.com/Stuti-Mahajan-14/Stuti-FSD-Ass1.git
Cloning into 'Stuti-FSD-Ass1'...
warning: You appear to have cloned an empty repository.

C:\Users\conne>cd Stuti-FSD-Ass1

C:\Users\conne\Stuti-FSD-Ass1>echo "Initial commit" > GIT-Ass1.txt

C:\Users\conne\Stuti-FSD-Ass1>git add .

C:\Users\conne\Stuti-FSD-Ass1>git commit -m "Initial commit"
[main (root-commit) 25262c9] Initial commit
1 file changed, 1 insertion(+)
create mode 100644 GIT-Ass1.txt

C:\Users\conne\Stuti-FSD-Ass1>git push origin main
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Writing objects: 100% (3/3), 244 bytes | 244.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/Stuti-Mahajan-14/Stuti-FSD-Ass1.git
 * [new branch]      main -> main

C:\Users\conne\Stuti-FSD-Ass1>
```

```
Command Prompt
To https://github.com/Stuti-Mahajan-14/Stuti-FSD-Ass1.git
 * [new branch]      main -> main

C:\Users\conne\Stuti-FSD-Ass1>git checkout -b feature_branch
Switched to a new branch 'feature_branch'

C:\Users\conne\Stuti-FSD-Ass1>echo "Working on feature" >> feature.txt

C:\Users\conne\Stuti-FSD-Ass1>git add feature.txt

C:\Users\conne\Stuti-FSD-Ass1>git commit -m "Added feature"
[feature_branch 23ec4b1] Added feature
1 file changed, 1 insertion(+)
create mode 100644 feature.txt

C:\Users\conne\Stuti-FSD-Ass1>git push origin feature_branch
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 12 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 312 bytes | 312.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
remote:
remote: Create a pull request for 'feature_branch' on GitHub by visiting:
remote:   https://github.com/Stuti-Mahajan-14/Stuti-FSD-Ass1/pull/new/feature_branch
remote:
To https://github.com/Stuti-Mahajan-14/Stuti-FSD-Ass1.git
 * [new branch]      feature_branch -> feature_branch


C:\Users\conne\Stuti-FSD-Ass1>
```



```
C:\Users\conne\Stuti-FSD-Ass1>git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.

C:\Users\conne\Stuti-FSD-Ass1>git pull origin main
From https://github.com/Stuti-Mahajan-14/Stuti-FSD-Ass1
 * branch      main      -> FETCH_HEAD
Already up to date.


C:\Users\conne\Stuti-FSD-Ass1>git merge feature_branch
Updating 25262c9..23ec4b1
Fast-forward
 feature.txt | 1 +
1 file changed, 1 insertion(+)
create mode 100644 feature.txt


C:\Users\conne\Stuti-FSD-Ass1>
```




← → ↺ [github.com/Stuti-Mahajan-14/Stuti-FSD-Ass1](#) 


  Stuti-Mahajan-14 / Stuti-FSD-Ass1


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 **Stuti-FSD-Ass1** Public [Pin](#) [Unwatch](#) 1 [Fork](#) 0 [Star](#) 0


 **feature\_branch** had recent pushes 1 minute ago [Compare & pull request](#)

 **main**  2 Branches  0 Tags  [Add file](#) [Code](#)

 **Stuti-Mahajan-14** Initial commit 25262c9 · 4 minutes ago [1 Commit](#)

 GIT-Ass1.txt Initial commit 4 minutes ago

[README](#)



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