

GIT ASSIGNMENT SUBMISSION

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Assignment: Git – Branch Creation, File Management & Branch Deletion

Problem Statement

You are required to create multiple Git branches, add specific files in each branch, push all branches to GitHub, and finally delete a branch both locally and remotely.

Environment Used

All Git tasks were performed on an Amazon Linux EC2 instance using the EC2 Instance Connect terminal.

Tasks Performed

Task 1: Create a Git working directory and Commit main.txt file in the master branch

Steps Taken:

1. Created the working directory and initialized Git with the master branch:

```
mkdir branches
```

```
cd branches
```

```
git init -b master
```

2. Created and committed the file:

```
touch main.txt
```

```
git add main.txt
```

```
git commit -m "Added main.txt in master"
```

```
[ec2-user@ip-10-0-3-185 ~]$ mkdir branches
[ec2-user@ip-10-0-3-185 ~]$ cd branches
[ec2-user@ip-10-0-3-185 branches]$ git init -b master
Initialized empty Git repository in /home/ec2-user/branches/.git/
[ec2-user@ip-10-0-3-185 branches]$ █
```

```
[ec2-user@ip-10-0-3-185 branches]$ touch main.txt
[ec2-user@ip-10-0-3-185 branches]$ git add main.txt
[ec2-user@ip-10-0-3-185 branches]$ git commit -m "Added main.txt in master"
[master (root-commit) 204f773] Added main.txt in master
Committer: EC2 Default User <ec2-user@ip-10-0-3-185.ec2.internal>
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, 0 insertions(+), 0 deletions(-)
create mode 100644 main.txt
[ec2-user@ip-10-0-3-185 branches]$ █
```

Task 2: Created the required branches:

Steps Taken:

```
git branch develop
```

```
git branch f1
```

```
git branch f2
```

```
[ec2-user@ip-10-0-3-185 branches]$ git branch develop
git branch f1
git branch f2
[ec2-user@ip-10-0-3-185 branches]$ git branch
  develop
  f1
  f2
* master
[ec2-user@ip-10-0-3-185 branches]$ █
```

Task 3: Add develop.txt, f1.txt, and f2.txt in their respective branches

Steps Taken:

Develop branch

```
git checkout develop  
echo "Develop file" > develop.txt  
git add develop.txt  
git commit -m "Added develop.txt in develop branch"
```

```
[ec2-user@ip-10-0-3-185 branches]$ git checkout develop  
Switched to branch 'develop'  
[ec2-user@ip-10-0-3-185 branches]$ echo "Develop file" > develop.txt  
[ec2-user@ip-10-0-3-185 branches]$ git add develop.txt  
[ec2-user@ip-10-0-3-185 branches]$ git commit -m "Added develop.txt in develop branch"  
[develop ce7061b] Added develop.txt in develop branch  
Committer: EC2 Default User <ec2-user@ip-10-0-3-185.ec2.internal>  
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(+)  
create mode 100644 develop.txt  
[ec2-user@ip-10-0-3-185 branches]$ █
```

F1 branch

```
git checkout f1  
echo "F1 file" > f1.txt  
git add f1.txt  
git commit -m "Added f1.txt in f1 branch"
```

```
[ec2-user@ip-10-0-3-185 branches]$ git checkout f1
Switched to branch 'f1'
[ec2-user@ip-10-0-3-185 branches]$ echo "F1 file" > f1.txt
[ec2-user@ip-10-0-3-185 branches]$ git add f1.txt
[ec2-user@ip-10-0-3-185 branches]$ git commit -m "Added f1.txt in f1 branch"
[f1 2d41dfb] Added f1.txt in f1 branch
Committer: EC2 Default User <ec2-user@ip-10-0-3-185.ec2.internal>
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(+)
create mode 100644 f1.txt
[ec2-user@ip-10-0-3-185 branches]$ █
```

F2 branch

git checkout f2

echo "F2 file" > f2.txt

git add f2.txt

git commit -m "Added f2.txt in f2 branch"

```
[ec2-user@ip-10-0-3-185 branches]$ git checkout f2
Switched to branch 'f2'
[ec2-user@ip-10-0-3-185 branches]$ echo "F2 file" > f2.txt
[ec2-user@ip-10-0-3-185 branches]$ git add f2.txt
[ec2-user@ip-10-0-3-185 branches]$ git commit -m "Added f2.txt in f2 branch"
[f2 66ce644] Added f2.txt in f2 branch
Committer: EC2 Default User <ec2-user@ip-10-0-3-185.ec2.internal>
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(+)
create mode 100644 f2.txt
[ec2-user@ip-10-0-3-185 branches]$ █
```

Finally returned to master:

git checkout master

```
[ec2-user@ip-10-0-3-185 branches]$ git checkout master
Switched to branch 'master'
[ec2-user@ip-10-0-3-185 branches]$ git remote add origin https://github.com/Vikky9387/vikram.git
[ec2-user@ip-10-0-3-185 branches]$ git push -u origin master
Username for 'https://github.com': Vikky9387
Password for 'https://Vikky9387@github.com':
```

Task 4: Push all branches to GitHub

Steps Taken:

1. Added the remote repository:

```
git remote add origin https://github.com/<your-username>/<your-repo>.git
```

2. Pushed all branches:

```
git push -u origin master
```

```
git push -u origin develop
```

```
git push -u origin f1
```

```
git push -u origin f2
```

```
[ec2-user@ip-10-0-3-185 branches]$ git push -u origin master
Username for 'https://github.com': Vikky9387
Password for 'https://Vikky9387@github.com':
Enumerating objects: 6, done.
Counting objects: 100% (6/6), done.
Delta compression using up to 2 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (5/5), 550 bytes | 550.00 KiB/s, done.
Total 5 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/Vikky9387/vikram.git
  329420a..0979493  master -> master
branch 'master' set up to track 'origin/master'.
[ec2-user@ip-10-0-3-185 branches]$ █
```

```
[ec2-user@ip-10-0-3-185 branches]$ git push -u origin develop
Username for 'https://github.com': Vikky9387
Password for 'https://Vikky9387@github.com':
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 2 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 323 bytes | 323.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: Create a pull request for 'develop' on GitHub by visiting:
remote:     https://github.com/Vikky9387/vikram/pull/new/develop
remote:
To https://github.com/Vikky9387/vikram.git
 * [new branch]      develop -> develop
branch 'develop' set up to track 'origin/develop'.
[ec2-user@ip-10-0-3-185 branches]$ █
```

```
[ec2-user@ip-10-0-3-185 branches]$ git push -u origin f1
Username for 'https://github.com': Vikky9387
Password for 'https://Vikky9387@github.com':
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 2 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 305 bytes | 305.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: Create a pull request for 'f1' on GitHub by visiting:
remote:     https://github.com/Vikky9387/vikram/pull/new/f1
remote:
To https://github.com/Vikky9387/vikram.git
 * [new branch]      f1 -> f1
branch 'f1' set up to track 'origin/f1'.
[ec2-user@ip-10-0-3-185 branches]$
```

```
[ec2-user@ip-10-0-3-185 branches]$ git push -u origin f2
Username for 'https://github.com': Vikky9387
Password for 'https://Vikky9387@github.com':
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 2 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 306 bytes | 306.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: Create a pull request for 'f2' on GitHub by visiting:
remote:     https://github.com/Vikky9387/vikram/pull/new/f2
remote:
To https://github.com/Vikky9387/vikram.git
 * [new branch]      f2 -> f2
branch 'f2' set up to track 'origin/f2'.
[ec2-user@ip-10-0-3-185 branches]$
```

Default

Branch	Updated	Check status	Behind	Ahead	Pull request
master	4 minutes ago		Default		

Your branches

Branch	Updated	Check status	Behind	Ahead	Pull request
f2	3 minutes ago		12	1	
f1	3 minutes ago		12	1	
develop	4 minutes ago		12	1	

Task 5: Delete f2 branch locally

Steps Taken:

```
git branch -d f2
```

```
[ec2-user@ip-10-0-3-185 branches]$ git branch -d f2
warning: deleting branch 'f2' that has been merged to
      'refs/remotes/origin/f2', but not yet merged to HEAD
Deleted branch f2 (was 66ce644).
[ec2-user@ip-10-0-3-185 branches]$ git branch
  develop
  f1
* master
[ec2-user@ip-10-0-3-185 branches]$
```

Task 6: Delete f2 branch on GitHub

Steps Taken:

```
git push origin --delete f2
```

```
[ec2-user@ip-10-0-3-185 branches]$ git push origin --delete f2
Username for 'https://github.com': Vikky9387
Password for 'https://Vikky9387@github.com':
To https://github.com/Vikky9387/vikram.git
 - [deleted]          f2
```

The screenshot shows the GitHub 'Branches' page for the repository 'vikram'. At the top, there's a 'New branch' button. Below it, a navigation bar includes 'Overview' (which is selected), 'Yours', 'Active', 'Stale', and 'All'. A search bar allows searching for branches. The main area is divided into two sections: 'Default' and 'Your branches'. In the 'Default' section, there is one branch: 'master', which was updated 6 minutes ago and is the 'Default' branch. In the 'Your branches' section, there are two branches: 'f1' and 'develop', both of which were updated 5 minutes ago. Each branch row includes a preview icon, a status indicator (green for healthy), and a 'Pull request' button.

Branch	Updated	Check status	Behind	Ahead	Pull request
master	6 minutes ago	Green	0	0	...

Branch	Updated	Check status	Behind	Ahead	Pull request
f1	5 minutes ago	Green	12	1	...
develop	5 minutes ago	Green	12	1	...

Conclusion

Successfully created and managed multiple Git branches, added branch-specific files, pushed all branches to GitHub, and deleted the f2 branch both locally and remotely. This demonstrates a clear understanding of Git branching workflow and remote branch management.