Practical of LMS Course Git & Git Flow

Submission By Vedant Soni (Block-chain Trainee 2023)

Aim:-

Create one repository for practical and provide the link of it for review.

Work on below points:

- 1. Pull and Merge difference
- Make example of pull request and two branch merge event.
- 2. Rebase
- Try to rebase feature branch with master branch
- 3. Change commit message
- Commit push on commit in feature branch and then change commit message
- 4. cherry pick
- Pick some commits from feature branch to master branch
- 5. Drop commit
- Remove some commit from feature branch.

-: Implementation with screenshots :-

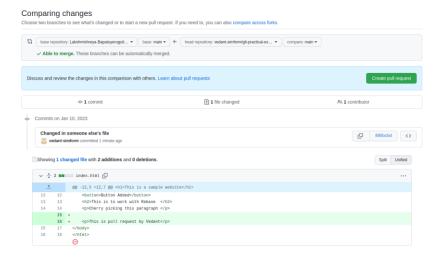
1. Pull and Merge difference

Pull Request: -

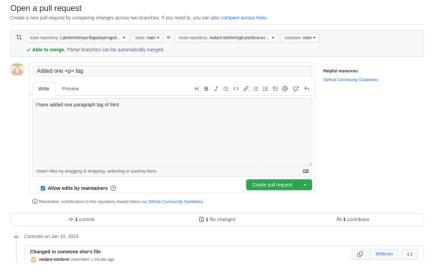
Description:-

Here I forked a git repo and done some changes and created a PULL Request.

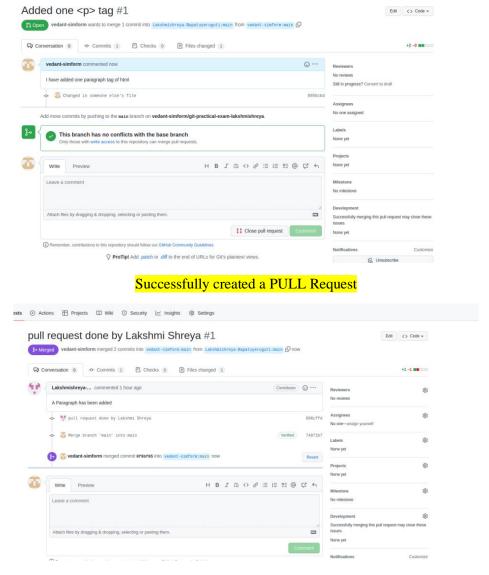
Steps output:-



Checked for conflict & ability to merge from my repo to Lakshmi's repo



Adding Message & Description for pull request



PULL Request merged successfully

Merge Event:-

Description:

- Main Branch name:- main
- Sub branch name:- feature-branch

Here I have merged my feature-branch to my main brach

Command:-

git merge feature-branch

Output:-

```
    vedant@sf-cpu-564:~/vedant-git$ git status
        On branch feature-branch
            nothing to commit, working tree clean

    vedant@sf-cpu-564:~/vedant-git$ git checkout main
        Switched to branch 'main'

    vedant@sf-cpu-564:~/vedant-git$ git merge feature-branch
        Updating 2503c5d..4cd5ec2
        Fast-forward
            home.html | 4 ++--
            1 file changed, 2 insertions(+), 2 deletions(-)
```

2. Rebase

- Try to rebase feature branch with master branch

Description:-

- I done some changes in feature-branch
- Then checkout to main branch
- Then Rebase my feature branch with main branch

(P.S. There were no conflict)

Command:-

git rebase feature-branch

Output:-

```
• vedant@sf-cpu-564:-/vedant-git$ git checkout main

Switched to branch 'main'

• vedant@sf-cpu-564:-/vedant-git$ git rebase feature-branch

Successfully rebased and updated refs/heads/main.

• vedant@sf-cpu-564:-/vedant-git$ git log --oneline --graph

* 4dc12f0 (HEAD -> main, feature-branch) Adding Table Feature

* 58f88ba (origin/main) Adding Heading

* 4cd5ec2 Adding title and paragraph

* 2503c5d Added base files in local system

* 75a041f Adding git-vedant

* 8eb362f Initial commit

* vedant@sf-cpu-564:-/vedant-git$
```

3. Change commit message

- Commit push on commit in feature branch and then change commit message

Description:-

- Added a commit with message "Adding Table Feature"
- For changing commit message, I have use interactive rebase
- It opened interactive window, then changing commit from pick to reword
- HEAD[^] is used because we want to change last commit

Command:-

git rebase -i HEAD^

Output:-

```
vedant@sf-cpu-564:~/vedant-git$ git log --oneline
4dc12f0 (HEAD -> feature-branch, origin/main) Adding Table Feature
58f88ba Adding Heading
4cd5ec2 Adding title and paragraph
2503c5d Added base files in local system
75a041f Adding git-vedant
8eb362f Initial commit

• vedant@sf-cpu-564:~/vedant-git$ git rebase -i HEAD^
[detached HEAD 5c8c89b] This commit message is changed to updated user file
Date: Tue Jan 10 17:17:25 2023 +0530
1 file changed, 5 insertions(+)
Successfully rebased and updated refs/heads/feature-branch.
• vedant@sf-cpu-564:~/vedant-git$ git log --oneline
5c8c89b (HEAD -> feature-branch) This commit message is changed to updated user file
58f88ba Adding Heading
4cd5ec2 Adding title and paragraph
2503c5d Added base files in local system
75a041f Adding git-vedant
8eb362f Initial commit

vedant@sf-cpu-564:~/vedant-git$ []
```

```
GNU nano 6.2
reword 4dc12f0 This commit message is changed to update user file

# Rebase 58f88ba..4dc12f0 onto 58f88ba (1 command)

# Commands:
# Commands:
# Commands:
# P, pick <commit> = use commit
# r, reword <commit> = use commit, but edit the commit message
# e, edit <commit> = use commit, but stop for amending
# s, squash <commit> = use commit, but stop for amending
# s, squash <commit> = use commit, but edit the commit message
# e, edit <commit> = use commit, but meld into previous commit
# f, fixup [-C | -c] <commit> = like "squash" but keep only the previous
# commit 's log message, unless -C is used, in which case
# keep only this commit's message; -c is same as -C but
# opens the editor
# x, exec <command> = run command (the rest of the line) using shell
# b, break = stop here (continue rebase later with 'git rebase --continue')
# d, drop <commit> = remove commit
# l, label <label> = label current HEAD with a name
# t, reset <label> = reset HEAD to a label
# m, merge [-C <commit> ] -c <commit> ] <label> [# <oneline>]
# . resate amerge commit using the original merge commit was
# . message (or the oneline, if no original merge commit was
# . message (or the oneline, if no original merge commit was
# . specified); use -c <commit> to reword the commit message
# These lines can be re-ordered; they are executed from top to bottom.
# If you remove a line here THAT COMMIT WILL BE LOST.
# However, if you remove everything, the rebase will be aborted.

G Help

O Write Out
Where Is

K Cut
T Execute
J Justify
J Go To Line
```

Changing pick to reword

```
GNU nano 6.2

This commit message is changed to updated user file.

# Please enter the commit message for your changes, Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
# Base: Tue Jan 10 17:17:25 2023 40530

# instractive rebase in progress, onto 5968ba
# instractive rebase in progress, onto 5968ba
# research deleft in its commit message is changed to update user file
# No commands femaling,
# Changes to be committed:
# Changes to be committed:
# modified: home.html
```

Adding new commit message

4. cherry pick

- Pick some commits from feature branch to master branch

Description:-

- We are picking commit with message "Added Address" from feature-branch to main branch
- We use hash value of that commit

Command:-

git cherry-pick <Hash-value>

git cherry-pick 81ca3b5

```
• vedant@sf-cpu-564:~/vedant-git$ git log --oneline
9284966 (HEAD -> feature-branch, origin/feature-branch) Added feature 2
81ca3b5 Added Address
ec35650 Adding Heading
de221c5 Adding Table Feature
4cd5ec2 Adding Title and paragraph
2593c5d Added base files in local system
753e041f Adding git-vedant
8eb36cf Initial commit

• vedant@sf-cpu-564:~/vedant-git$ git checkout main
Switched to branch 'main'
• vedant@sf-cpu-564:~/vedant-git$ git log --oneline
76id522 (HEAD -> main) Adding Heading
de221c5 Adding Table Feature
4cd5ec2 Adding title and paragraph
2593c5d Added base files in local system
75a041f Adding git-vedant

• vedant@sf-cpu-564:~/vedant-git$ git cherry-pick 81ca3b5
[main lcccac9] Added Address
Date: Tue Jan 10 17:45:10 2023 +0530
1 file changed, 12 insertions(+)

• vedant@sf-cpu-564:~/vedant-git$ git log --oneline
1cccac9 (HEAD -> main) Added Address
761d522 Adding Table Feature
4cd5ec2 Adding Table Feature
4cd5ec2 Adding title and paragraph
2593c5d Added base files in local system
75a041f Adding git-vedant
8eb36cf Initial commit

• vedant@sf-cpu-564:~/vedant-git$ git log --oneline
1cccac9 (HEAD -> main) Added Address
761d522 Adding Table Feature
4cd5ec2 Adding title and paragraph
2593c5d Added base files in local system
75a041f Adding git-vedant
8eb36cf Initial commit

• vedant@sf-cpu-564:~/vedant-git$
```

After cherry picking we can see new commit added to the git log of main branch

5. Drop commit

- Remove some commit from feature branch.

Description:-

- We use git rebase interactive to drop commits.
- We use HEAD~4 to show last 4 commits
- Then we droped last two commits and keep remaining as it is.

Command:-

git rebase -i HEAD~4

```
vedant@sf-cpu-564:~/vedant-git$ git push origin feature-branch
Everything up-to-date
vedant@sf-cpu-564:~/vedant-git$ git log --oneline
9284966 (HEAD -> feature-branch, origin/feature-branch) Added feature 2
81ca3b5 Added Address
ec35650 Adding Heading
de221c5 Adding Table Feature
4cd5ec2 Adding title and paragraph
2503c5d Added base files in local system
75a041f Adding git-vedant
8eb362f Initial commit

vedant@sf-cpu-564:~/vedant-git$ git rebase -i HEAD~4
Successfully rebased and updated refs/heads/feature-branch.

vedant@sf-cpu-564:~/vedant-git$ git log --oneline
ec35650 (HEAD -> feature-branch) Adding Heading
de221c5 Adding Table Feature
4cd5ec2 Adding title and paragraph
2503c5d Added base files in local system
75a041f Adding git-vedant
8eb362f Initial commit
vedant@sf-cpu-564:~/vedant-git$
```

We can see git log before and after removing commit from feature-branch

We have changed pick to drop for two commits