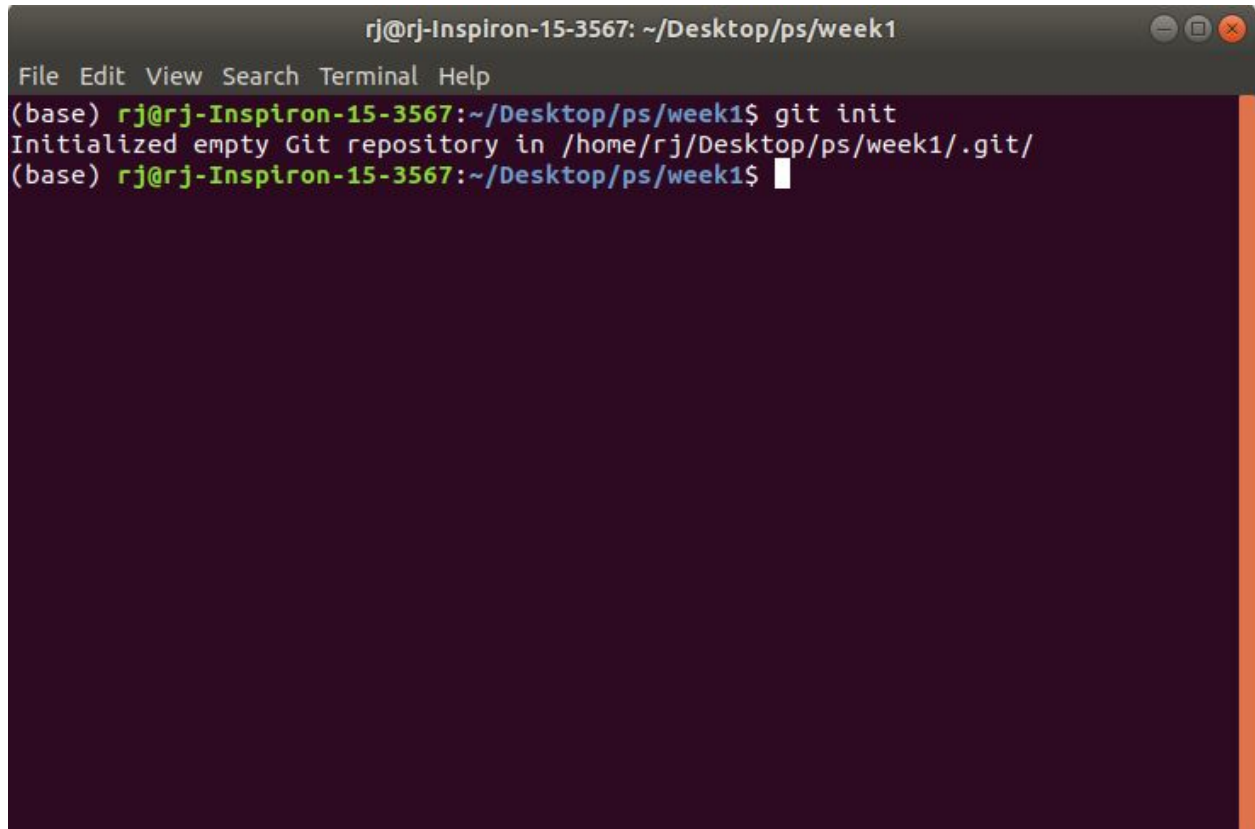


Rohit Kumar Singh (rohitjadaun3@gmail.com)

1. Basic usage of cli

a. Setup a Local Repository

A terminal window titled 'rj@rj-Inspiron-15-3567: ~/Desktop/ps/week1' with standard window controls. The terminal has a menu bar with 'File', 'Edit', 'View', 'Search', 'Terminal', and 'Help'. The command history shows '(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1\$ git init', followed by the output 'Initialized empty Git repository in /home/rj/Desktop/ps/week1/.git/'. The prompt then shows '(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1\$' with a cursor.

```
rj@rj-Inspiron-15-3567: ~/Desktop/ps/week1
File Edit View Search Terminal Help
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git init
Initialized empty Git repository in /home/rj/Desktop/ps/week1/.git/
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$
```

b. Setup a remote repository

```
rj@rj-Inspiron-15-3567: ~/Desktop/ps/week1
File Edit View Search Terminal Help
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git status
On branch master

No commits yet

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

        README.md

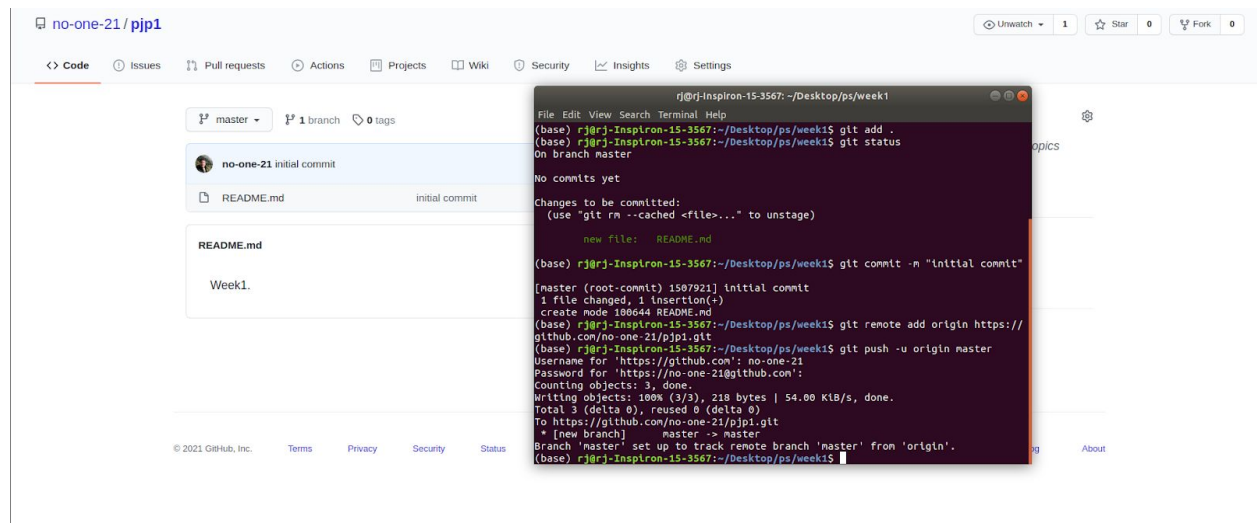
nothing added to commit but untracked files present (use "git add" to track)
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git add .
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)

        new file:   README.md

(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git commit -m "initial commit"
[master (root-commit) 1507921] initial commit
1 file changed, 1 insertion(+)
 create mode 100644 README.md
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$
```



C. Create local branches

```

rj@rj-Inspiron-15-3567: ~/Desktop/ps/week1
File Edit View Search Terminal Help
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git status
On branch master
Your branch is up to date with 'origin/master'.

nothing to commit, working tree clean
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git branch dev master
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git branch feature dev
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git branch QA master
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git branch delivery master
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git branch
  QA
  delivery
  dev
  feature
* master
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$
```

D. Create remote branches

The screenshot shows the GitHub repository page for 'no-one-21/pjp1'. The repository has 1 branch and 0 tags. The 'Code' tab is selected. A terminal window is overlaid on the page, showing the following commands and output:

```

rj@rj-Inspiron-15-3567: ~/Desktop/ps/week1
File Edit View Search Terminal Help
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git remote --v
origin https://github.com/no-one-21/pjp1.git (fetch)
origin https://github.com/no-one-21/pjp1.git (push)
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git push -f origin master
Username for 'https://github.com': no-one-21
Password for 'https://no-one-21@github.com':
Everything up-to-date
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git status
On branch master
Your branch is up to date with 'origin/master'.

nothing to commit, working tree clean
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git push --all
Username for 'https://github.com': no-one-21
Password for 'https://no-one-21@github.com':
Total 0 (delta 0), reused 0 (delta 0)
To https://github.com/no-one-21/pjp1.git
 * [new branch]      QA -> QA
 * [new branch]      delivery -> delivery
 * [new branch]      dev -> dev
 * [new branch]      feature -> feature
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$
```

E. Add files/folders, make changes to files, remove files/folders

```

rj@rj-Inspiron-15-3567: ~/Desktop/ps/week1
File Edit View Search Terminal Help
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ touch file1.txt
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git status
On branch feature
Untracked files:
  (use "git add <file>..." to include in what will be committed)

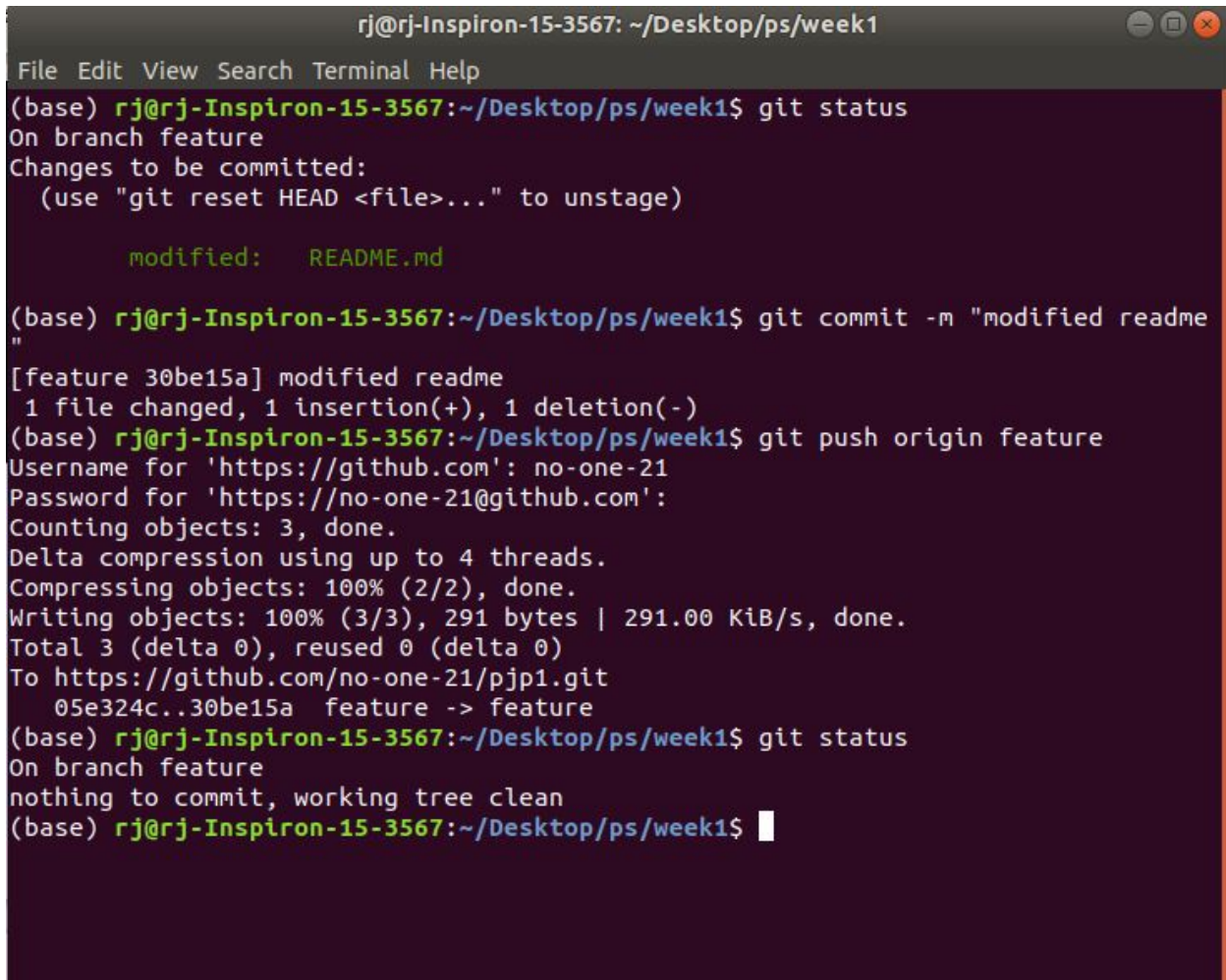
    file1.txt

nothing added to commit but untracked files present (use "git add" to track)
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git add .
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git status
On branch feature
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

    new file:   file1.txt

(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git commit -m "added file on b
branch feature"
[feature 05e324c] added file on branch feature
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 file1.txt
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git status
On branch feature
nothing to commit, working tree clean
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git push origin feature
Username for 'https://github.com': no-one-21
Password for 'https://no-one-21@github.com':
Counting objects: 3, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 287 bytes | 287.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/no-one-21/pjp1.git
 1507921..05e324c  feature -> feature
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$
```


F. Check in, stage, commit, push changes into feature branch



```

rj@rj-Inspiron-15-3567: ~/Desktop/ps/week1
File Edit View Search Terminal Help
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git status
On branch feature
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

        modified:   README.md

(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git commit -m "modified readme"
[feature 30be15a] modified readme
 1 file changed, 1 insertion(+), 1 deletion(-)
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git push origin feature
Username for 'https://github.com': no-one-21
Password for 'https://no-one-21@github.com':
Counting objects: 3, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 291 bytes | 291.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/no-one-21/pjp1.git
   05e324c..30be15a  feature -> feature
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git status
On branch feature
nothing to commit, working tree clean
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$
```

G. Promote code from feature branch to dev branch via pull requests.

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](#).

base: dev

←

compare: feature

✓

Able to merge.

These branches can be automatically merged.

modified files

Write

Preview

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Leave a comment

Attach files by dragging & dropping, selecting or pasting them.

📎

Create pull request

▼

Remember, contributions to this repository should follow our [GitHub Community Guidelines](#).

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


Us


...



modified files #1

 Open


no-one-21 wants to merge 2 commits into `dev` from `feature` 

 Conversation 0  Commits 2  Checks 0  Files changed 2







no-one-21 commented now Owner  

No description provided.





no-one-21 added 2 commits 9 minutes ago


  added file on branch feature 05e324c


  modified readme 30be15a

Add more commits by pushing to the `feature` branch on no-one-21/pjp1.




 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 

 or view command line instructions.



Write Preview

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Leave a comment

I. Checkout latest code from remote to local

```

rj@rj-Inspiron-15-3567: ~/Desktop/ps/week1
File Edit View Search Terminal Help
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git checkout dev
Switched to branch 'dev'
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git fetch origin dev
^C
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git status
On branch dev
nothing to commit, working tree clean
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git log
commit 15079216197a16e17eb6efc93a1a951666c78123 (HEAD -> dev, origin/master, ori
gin/dev, origin/delivery, origin/QA, master, delivery, QA)
Author: no-one-21 <rohitjadaun3@gmail.com>
Date:   Fri Mar 12 00:51:48 2021 +0530

    initial commit
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ █

```

H. Explore difference between checkout and pull

Ans.

```

rj@rj-Inspiron-15-3567: ~/Desktop/ps/week1
File Edit View Search Terminal Help
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git pull origin dev
remote: Enumerating objects: 1, done.
remote: Counting objects: 100% (1/1), done.
remote: Total 1 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (1/1), done.
From https://github.com/no-one-21/pjp1
 * branch                dev                -> FETCH_HEAD
    1507921..f23915d      dev                -> origin/dev
Updating 1507921..f23915d
Fast-forward
 README.md | 2 +-
 file1.txt | 0
 2 files changed, 1 insertion(+), 1 deletion(-)
 create mode 100644 file1.txt
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ █

```

checkout-> **Fetches** the latest changes. You should already have this repo downloaded. It **does not merge** those new changes but makes your working directory reflect them. You can merge them at your leisure later.

pull-> fetches the latest changes from remote and merges them into the local branch of the same name.

I. Get two people make changes to same file, checkin & handle merge conflicts

- a. Let's first create 2 new branches and make changes to the test.txt file.


```

rj@rj-Inspiron-15-3567: ~/Desktop/ps/week1
File Edit View Search Terminal Help
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git checkout feature1
Switched to branch 'feature1'
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ ls
file1.txt  README.md
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ cat > file1.txt
changed for feature1
^C
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git status
On branch feature1
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git checkout -- <file>..." to discard changes in working directory)

        modified:   file1.txt

no changes added to commit (use "git add" and/or "git commit -a")
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git add .
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git commit -m "feature 1 in fi
le 1"
[feature1 1c6ba4e] feature 1 in file 1
 1 file changed, 3 insertions(+)
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git status
On branch feature1
nothing to commit, working tree clean
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$
```

```

rj@rj-Inspiron-15-3567: ~/Desktop/ps/week1
File Edit View Search Terminal Help
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git status
On branch feature2
nothing to commit, working tree clean
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ cat > file1.txt
update from feature 2
^C
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git status
On branch feature2
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git checkout -- <file>..." to discard changes in working directory)

        modified:   file1.txt

no changes added to commit (use "git add" and/or "git commit -a")
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git add .
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git commit -m "update file 1 from feature2 branch"
[feature2 2d1a44a] update file 1 from feature2 branch
 1 file changed, 1 insertion(+)
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git status
On branch feature2
nothing to commit, working tree clean
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$
```

Now let's try to merge changes from both the branches to feature branch

```
rj@rj-Inspiron-15-3567: ~/Desktop/ps/week1
File Edit View Search Terminal Help
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git checkout feature
Switched to branch 'feature'
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git merge feature1
Updating 30be15a..1c6ba4e
Fast-forward
 file1.txt | 3 +++
 1 file changed, 3 insertions(+)
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git merge feature2
Auto-merging file1.txt
CONFLICT (content): Merge conflict in file1.txt
Automatic merge failed; fix conflicts and then commit the result.
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git status
On branch feature
You have unmerged paths.
  (fix conflicts and run "git commit")
  (use "git merge --abort" to abort the merge)

Unmerged paths:
  (use "git add <file>..." to mark resolution)

        both modified:   file1.txt

no changes added to commit (use "git add" and/or "git commit -a")
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$
```

Now try to fix changes manually

```
① README.md  file1.txt x
Accept Current Change | Accept Incoming Change | Accept Both Changes | Compare Changes
1 <<<<<< HEAD (Current Change)
2   changed for feature1
3
4
5 =====
6   update from feature 2
7 >>>>>> feature2 (Incoming Change)
8
```

```
1   changed for feature1
2
3
4   update from feature 2
5
```

Now commit changes and merge them


```

rj@rj-Inspiron-15-3567: ~/Desktop/ps/week1
File Edit View Search Terminal Help
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git status
On branch feature
You have unmerged paths.
  (fix conflicts and run "git commit")
  (use "git merge --abort" to abort the merge)

Unmerged paths:
  (use "git add <file>..." to mark resolution)

        both modified:   file1.txt

no changes added to commit (use "git add" and/or "git commit -a")
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git add .
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git commit -m "merged conflict successfully"
[feature 6ba4f32] merged conflict successfully
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git checkout dev
Switched to branch 'dev'
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git merge feature
Merge made by the 'recursive' strategy.
  file1.txt | 4 ++++
  1 file changed, 4 insertions(+)
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git log
commit 1270c377f0e64f82b4e9386a22d8ef8efca113ce (HEAD -> dev)
Merge: f23915d 6ba4f32
Author: no-one-21 <rohitjadaun3@gmail.com>
Date:   Fri Mar 12 01:35:27 2021 +0530

    Merge branch 'feature' into dev

commit 6ba4f32393ab27841094960088e5a1372339ec1b (feature)
Merge: 1c6ba4e 2d1a44a
Author: no-one-21 <rohitjadaun3@gmail.com>
Date:   Fri Mar 12 01:34:31 2021 +0530

    merged conflict successfully

```

J. Ensure code is sync across all branches


```
rj@rj-Inspiron-15-3567: ~/Desktop/ps/week1
File Edit View Search Terminal Help
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git status
On branch dev
nothing to commit, working tree clean
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git push origin dev
Username for 'https://github.com': no-one-21
Password for 'https://no-one-21@github.com':
Counting objects: 10, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (7/7), done.
Writing objects: 100% (10/10), 1.03 KiB | 350.00 KiB/s, done.
Total 10 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), done.
To https://github.com/no-one-21/pjp1.git
   f23915d..1270c37 dev -> dev
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git status
On branch dev
nothing to commit, working tree clean
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git pull origin master
From https://github.com/no-one-21/pjp1
 * branch                master      -> FETCH_HEAD
Already up to date.
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$
```


Opening a pull request

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](#).

base: master ← compare: dev

✓ Able to merge. These branches can be automatically merged.



resolved merge conflicts

Write

Preview

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Leave a comment

Attach files by dragging & dropping, selecting or pasting them.

M4

Create pull request

▼

Remember, contributions to this repository should follow our [GitHub Community Guidelines](#).

resolved merge conflicts #2

Open

no-one-21 wants to merge 7 commits into master from dev

Edit Open with ▼


Conversation 0

Commits 7

Checks 0

Files changed 2

+5 -1




no-one-21 commented now

Owner

⌵

⋮

No description provided.



no-one-21 added 7 commits 35 minutes ago

added file on branch feature

05e324c

modified readme

30be15a

Merge pull request #1 from no-one-21/feature

Verified f23915d

feature 1 in file 1

1c6ba4e

update file 1 from feature2 branch

2d1a44a


merged conflict successfully

6ba4f32

Merge branch 'feature' into dev

1270c37

Add more commits by pushing to the dev branch on no-one-21/pip1.



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

▼

or view command line instructions.

Reviewers

No reviews

Still in progress? Convert to draft

Assignees

No one—assign yourself

Labels

None yet

Projects

None yet

Milestone

No milestone

Linked issues

Successfully merging this pull request may close these issues.

None yet


Notifications

Customize

Unsubscribe

You're receiving notifications because you're watching this repository.

1 participant

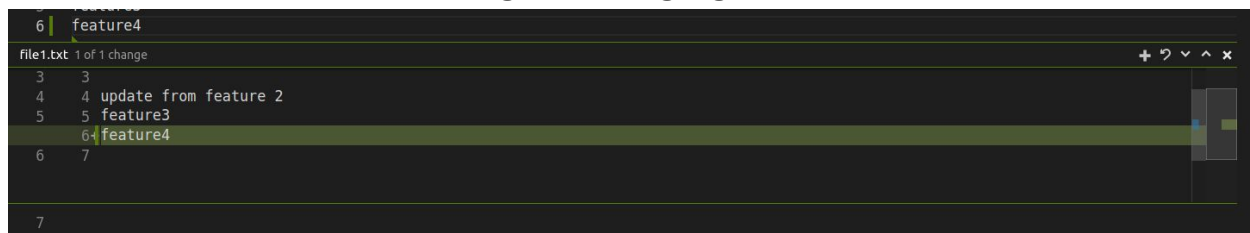


Pull master from origin

```

rj@rj-Inspiron-15-3567: ~/Desktop/ps/week1
File Edit View Search Terminal Help
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git checkout master
Switched to branch 'master'
Your branch is up to date with 'origin/master'.
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git pull origin master
remote: Enumerating objects: 1, done.
remote: Counting objects: 100% (1/1), done.
remote: Total 1 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (1/1), done.
From https://github.com/no-one-21/pjp1
 * branch                master      -> FETCH_HEAD
 1507921..75d3612 master      -> origin/master
Updating 1507921..75d3612
Fast-forward
 README.md | 2 +-
 file1.txt | 4 ++++
 2 files changed, 5 insertions(+), 1 deletion(-)
 create mode 100644 file1.txt
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$
```

2. Perform above actions using vscode/git gui



In vs code we can use different extensions like git lens for action like staging, commit, rebase, merging, pushing etc. and git blame to see changes added by each person.

3. On ground day to day scenarios

a. Git reset/revert changes (soft/hard reset)

--soft reset

Does not touch the index file or the working tree at all (but resets the head to <commit>, just like all modes do). This leaves all your changed files "Changes to be committed", as git status would put it.

```

rj@rj-Inspiron-15-3567: ~/Desktop/ps/week1
File Edit View Search Terminal Help
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ touch file3 file4
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git add file3
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git status
On branch master
Your branch is up to date with 'origin/master'.

Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

        new file:   file3

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

        file4

(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$
```

Git log after soft reset


```

rj@rj-Inspiron-15-3567: ~/Desktop/ps/week1
File Edit View Search Terminal Help
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git log --oneline
fbad761 (HEAD -> master, origin/master) made ui changes
75d3612 Merge pull request #2 from no-one-21/dev
1270c37 (origin/dev, dev) Merge branch 'feature' into dev
6ba4f32 (feature) merged conflict successfully
2d1a44a (feature2) update file 1 from feature2 branch
1c6ba4e (feature1) feature 1 in file 1
f23915d Merge pull request #1 from no-one-21/feature
30be15a (origin/feature) modified readme
05e324c added file on branch feature
1507921 (origin/delivery, origin/QA, delivery, QA) initial commit
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git reset 30be15a
Unstaged changes after reset:
M       file1.txt
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git status
On branch master
Your branch is behind 'origin/master' by 7 commits, and can be fast-forwarded.
  (use "git pull" to update your local branch)

Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git checkout -- <file>..." to discard changes in working directory)

        modified:   file1.txt

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

        file3
        file4

no changes added to commit (use "git add" and/or "git commit -a")
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$
```

--hard reset example

Git log after hard reset

```

rj@rj-Inspiron-15-3567: ~/Desktop/ps/week1
File Edit View Search Terminal Help
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git reset --hard 30be15a
HEAD is now at 30be15a modified readme
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git status
On branch master
Your branch is behind 'origin/master' by 7 commits, and can be fast-forwarded.
  (use "git pull" to update your local branch)

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

        file3
        file4

nothing added to commit but untracked files present (use "git add" to track)
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$
```

b. Git stash

Let person 1 make changes to test.txt file and commit it

```

rj@rj-Inspiron-15-3567: ~/Desktop/ps/week1
File Edit View Search Terminal Help
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git checkout -b feature3
Switched to a new branch 'feature3'
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ cat > file5
this is a feature3 file
^C
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git add .
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git commit -m "feature3 file added"
[feature3 fa66a46] feature3 file added
 3 files changed, 1 insertion(+)
 create mode 100644 file3
 create mode 100644 file4
 create mode 100644 file5
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$
```

Now let master make changes and it tries to merge person after making changes.

```

rj@rj-Inspiron-15-3567: ~/Desktop/ps/week1
File Edit View Search Terminal Help
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git checkout dev
Switched to branch 'dev'
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git status
On branch dev
nothing to commit, working tree clean
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ cat > files
features from dev
^C
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git status
On branch dev
Untracked files:
  (use "git add <file>..." to include in what will be committed)

    files

nothing added to commit but untracked files present (use "git add" to track)
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git mergre feature3
git: 'mergre' is not a git command. See 'git --help'.

The most similar command is
    merge
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git merge feature3
Updating 1270c37..fa66a46
error: The following untracked working tree files would be overwritten by merge:
    files
Please move or remove them before you merge.
Aborting
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$
```

Performing git stash


```
rj@rj-Inspiron-15-3567: ~/Desktop/ps/week1
File Edit View Search Terminal Help
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git add -A
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git status
On branch dev
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

        new file:   file5

(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git stash
Saved working directory and index state WIP on dev: 1270c37 Merge branch 'feature' into dev
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git merge feature 3
merge: 3 - not something we can merge
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git merge feature3
Updating 1270c37..fa66a46
Fast-forward
 file1.txt | 2 ++
 file3     | 0
 file4     | 0
 file5     | 1 +
4 files changed, 3 insertions(+)
 create mode 100644 file3
 create mode 100644 file4
 create mode 100644 file5
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git status
On branch dev
nothing to commit, working tree clean
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ cat file5
this is a feature3 file
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$
```

3. Git rebase

Adding new.txt file by master


```

rj@rj-Inspiron-15-3567: ~/Desktop/ps/week1
File Edit View Search Terminal Help
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git checkout -b feature4
Switched to a new branch 'feature4'
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ cat > file6
feature 4 added to file 6
^C
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git add .
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git commit -m "feature 4 added
in branch 6"
[feature4 58d29f9] feature 4 added in branch 6
1 file changed, 1 insertion(+)
create mode 100644 file6
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git status
On branch feature4
nothing to commit, working tree clean
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git checkout dev
Switched to branch 'dev'
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git rebase feature4
First, rewinding head to replay your work on top of it...
Fast-forwarded dev to feature4.
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ ls
file1.txt file3 file4 file5 file6 README.md
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git status
On branch dev
nothing to commit, working tree clean
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ █

```

4. Git log ,reflog, status

Git log

```
rj@rj-Inspiron-15-3567: ~/Desktop/ps/week1
File Edit View Search Terminal Help
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git log
commit 58d29f958f80187224b8221dc8a31f48d1cc5c8a (HEAD -> dev, feature4)
Author: no-one-21 <rohitjadaun3@gmail.com>
Date:   Fri Mar 12 02:09:26 2021 +0530

    feature 4 added in branch 6

commit fa66a460fd7aea6f024472fcfb9f4f4c60c35ff2 (feature3)
Author: no-one-21 <rohitjadaun3@gmail.com>
Date:   Fri Mar 12 02:03:04 2021 +0530

    feature3 file added

commit fbad76100351cee0218a44a0edb4ca0156678cdd (origin/master, master)
Author: no-one-21 <rohitjadaun3@gmail.com>
Date:   Fri Mar 12 01:49:45 2021 +0530

    made ui changes

commit 75d3612366614b2d237966ecb98e7245062cf732
Merge: 1507921 1270c37
Author: Rohit Rj <rohitjadaun3@gmail.com>
Date:   Fri Mar 12 01:41:05 2021 +0530

    Merge pull request #2 from no-one-21/dev

    resolved merge conflicts

commit 1270c377f0e64f82b4e9386a22d8ef8efca113ce (origin/dev)
Merge: f23915d 6ba4f32
Author: no-one-21 <rohitjadaun3@gmail.com>
Date:   Fri Mar 12 01:35:27 2021 +0530

    Merge branch 'feature' into dev

commit 6ba4f32393ab27841094960088e5a1372339ec1b (feature)
```

Git status


```

rj@rj-Inspiron-15-3567: ~/Desktop/ps/week1
File Edit View Search Terminal Help
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git status
On branch dev
nothing to commit, working tree clean
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$
```

Git relog

```

rj@rj-Inspiron-15-3567: ~/Desktop/ps/week1
File Edit View Search Terminal Help
(base) rj@rj-Inspiron-15-3567:~/Desktop/ps/week1$ git relog
58d29f9 (HEAD -> dev, feature4) HEAD@{0}: rebase finished: returning to refs/heads/dev
58d29f9 (HEAD -> dev, feature4) HEAD@{1}: rebase: checkout feature4
fa66a46 (feature3) HEAD@{2}: checkout: moving from feature4 to dev
58d29f9 (HEAD -> dev, feature4) HEAD@{3}: commit: feature 4 added in branch 6
fa66a46 (feature3) HEAD@{4}: checkout: moving from dev to feature4
fa66a46 (feature3) HEAD@{5}: merge feature3: Fast-forward
1270c37 (origin/dev) HEAD@{6}: reset: moving to HEAD
1270c37 (origin/dev) HEAD@{7}: checkout: moving from feature3 to dev
fa66a46 (feature3) HEAD@{8}: commit: feature3 file added
fbad761 (origin/master, master) HEAD@{9}: checkout: moving from master to feature3
fbad761 (origin/master, master) HEAD@{10}: pull origin master: Fast-forward
30be15a (origin/feature) HEAD@{11}: reset: moving to 30be15a
fbad761 (origin/master, master) HEAD@{12}: pull origin master: Fast-forward
30be15a (origin/feature) HEAD@{13}: reset: moving to HEAD
30be15a (origin/feature) HEAD@{14}: reset: moving to 30be15a
fbad761 (origin/master, master) HEAD@{15}: commit: made ui changes
75d3612 HEAD@{16}: checkout: moving from master to master
75d3612 HEAD@{17}: pull origin master: Fast-forward
1507921 (origin/delivery, origin/QA, delivery, QA) HEAD@{18}: checkout: moving from dev to master
1270c37 (origin/dev) HEAD@{19}: merge feature: Merge made by the 'recursive' strategy.
f23915d HEAD@{20}: checkout: moving from feature to dev
6ba4f32 (feature) HEAD@{21}: commit (merge): merged conflict successfully
1c6ba4e (feature1) HEAD@{22}: merge feature1: Fast-forward
30be15a (origin/feature) HEAD@{23}: checkout: moving from feature2 to feature1
2d1a44a (feature2) HEAD@{24}: commit: update file 1 from feature2 branch
30be15a (origin/feature) HEAD@{25}: checkout: moving from feature1 to feature2
1c6ba4e (feature1) HEAD@{26}: commit: feature 1 in file 1
30be15a (origin/feature) HEAD@{27}: checkout: moving from feature to feature1
30be15a (origin/feature) HEAD@{28}: checkout: moving from dev to feature1
f23915d HEAD@{29}: pull origin dev: Fast-forward
1507921 (origin/delivery, origin/QA, delivery, QA) HEAD@{30}: checkout: moving f
```