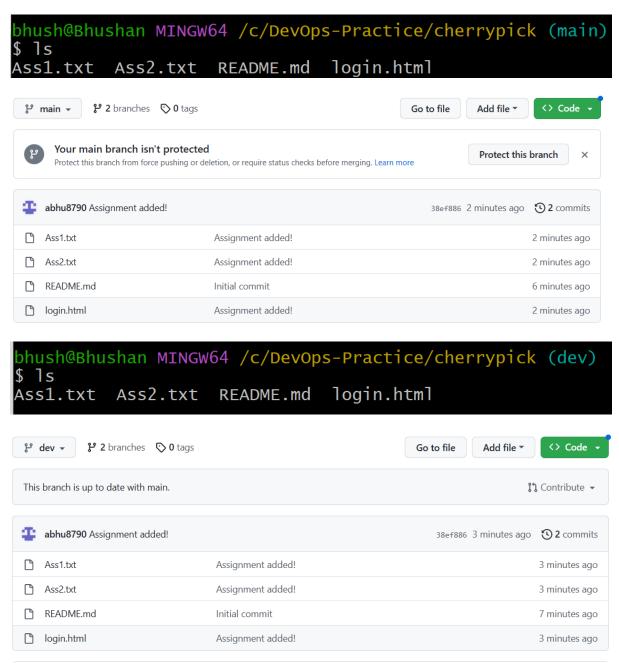
# Assignment no 5

# **Git Cherry Pick**

## Use Case - 1

Use Case 1) Create a user case for cherry-pick a commit gone to wrong branch [dev] and merge it on correct branch[master].

**Point 1:** We have master branch on that we have 3 files. Similarly, if we create dev branch from main all the files are reflected in dev branch.



**Point 2:** Now we are in dev branch. Here we create file Forgot.html and edit file login.html. Stage, commit it and push it to dev branch. But after pushing I realize that I wanted to push it on main branch but I push it on to dev branch.

```
bhush@Bhushan MINGW64 /c/DevOps-Practice/cherrypick (main)
$ git checkout dev
Switched to a new branch 'dev'
branch 'dev' set up to track 'origin/dev'.
bhush@Bhushan MINGW64 /c/DevOps-Practice/cherrypick (dev)
$ 1s
Ass1.txt Ass2.txt README.md login.html
bhush@Bhushan MINGW64 /c/DevOps-Practice/cherrypick (dev)
$ vi Forgot.html
bhush@Bhushan MINGW64 /c/DevOps-Practice/cherrypick (dev)
$ vi login.html
bhush@Bhushan MINGW64 /c/DevOps-Practice/cherrypick (dev)
$ git add .
warning: in the working copy of 'login.html', LF will be replac
ed by CRLF the next time Git touches it warning: in the working copy of 'Forgot.html', LF will be repla
ced by CRLF the next time Git touches it
bhush@Bhushan MINGW64 /c/DevOps-Practice/cherrypick (dev)
$ git commit -m "Forgot.html is added and committed! loign.htm
is edited and comiited!"
[dev 016b124] Forgot.html is added and committed! loign.htm is
edited and comiited!
 2 files changed, 2 insertions(+)
 create mode 100644 Forgot.html
bhush@Bhushan MINGW64 /c/DevOps-Practice/cherrypick (dev)
$ git push
Enumerating objects: 6, done.

Counting objects: 100% (6/6), done.

Delta compression using up to 8 threads

Compressing objects: 100% (2/2), done.

Writing objects: 100% (4/4), 372 bytes | 372.00 KiB/s, done.

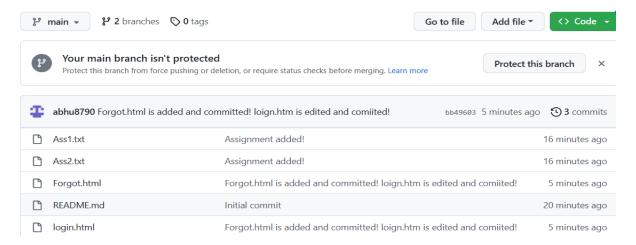
Total 4 (delta 1), reused 0 (delta 0), pack-reused 0

remote: Resolving deltas: 100% (1/1), completed with 1 local
remote: Resolving deltas: 100% (1/1), completed with 1 local object. To https://github.com/abhu8790/cherrypick.git
    38ef886..016b124 dev -> dev
```

dev had recent pushes 1 minute ago			k pull request		
<pre>% dev ▼</pre> <pre>% 2 branches</pre> <pre>♡ 0 tags</pre>		Go to file Add file	<> Code →		
This branch is 1 commit ahead of main.					
abhu8790 Forgot.html is added and co	ommitted! loign.htm is edited and comiited!	ø16ь124 1 minute ago	3 commits		
Ass1.txt	Assignment added!		9 minutes ago		
Ass2.txt	Assignment added!		9 minutes ago		
Porgot.html	Forgot.html is added and committed! loign.htm	is edited and comiited!	1 minute ago		
□ README.md	Initial commit		13 minutes ago		
login.html	Forgot.html is added and committed! loign.htm	is edited and comiited!	1 minute ago		

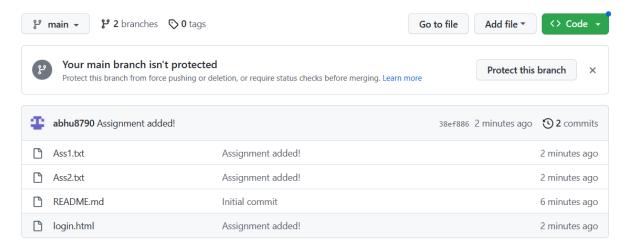
**Point 3:** Now when run git log command we get commit history. Use SHA of the commit that you mistakenly push to wrong branch and cherry pick it.

```
Bhushan MINGW64 /c/DevOps-Practice/cherrypick (dev)
   git log --graph
   commit 016b124181c352233cb873783648927d59d55fba (HEAD -> dev, origin/dev)
Author: abhu8790 <abhu8790@gmail.com>
              Sun Mar 19 00:41:18 2023 +0530
         Forgot.html is added and committed! loign.htm is edited and comiited!
       mit 38ef886b6ebe474c69e61ec0fbd71fcee9bf1cfb (origin/main, origin/HEAD, main)
   Author: abhu8790 <abhu8790@gmail.com>
              Sun Mar 19 00:32:28 2023 +0530
         Assignment added!
   commit ff7b752e281f60d864f8e41f3a2414add3f62d77
   Author: abhu8790 <126494444+abhu8790@users.noreply.github.com>
              Sun Mar 19 00:28:31 2023 +0530
   Date:
         Initial commit
 ohush@Bhushan MINGW64 /c/DevOps-Practice/cherrypick (dev)
  git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
bhush@Bhushan MINGW64 /c/DevOps-Practice/cherrypick (main)
$ git cherry-pick 016b124181c352233cb873783648927d59d55fba
[main bb49603] Forgot.html is added and committed! loign.htm is edited and comiited!
Date: Sun Mar 19 00:41:18 2023 +0530
2 files changed, 2 insertions(+)
create mode 100644 Forgot.html
 ohush@Bhushan MINGW64 /c/DevOps-Practice/cherrypick (main)
$ 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
 ohush@Bhushan MINGW64 /c/DevOps-Practice/cherrypick (main)
$ git push
Enumerating objects: 6, done.
Counting objects: 100% (6/6), done.
Delta compression using up to 8 threads
Compression using up to 8 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (4/4), 378 bytes | 378.00 KiB/s, done.
Total 4 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/abhu8790/cherrypick.git
    38ef886..bb49603 main -> main
```

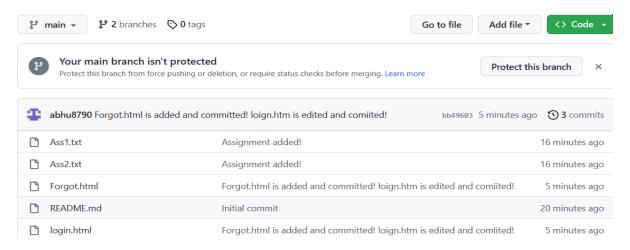


**Point 4:** Observe that Changes reelected in master branch that we wanted.

## **Before Cherry-Pick**



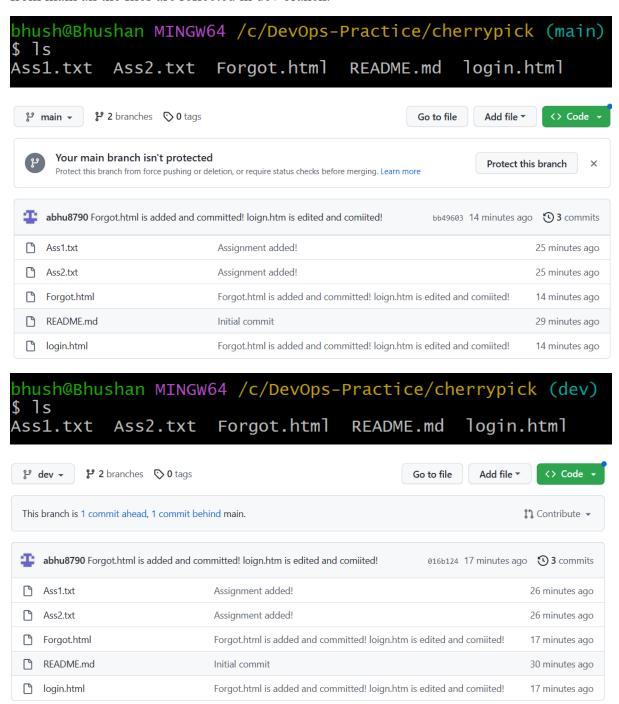
## **After Cherry-Pick**



### Use Case - 2

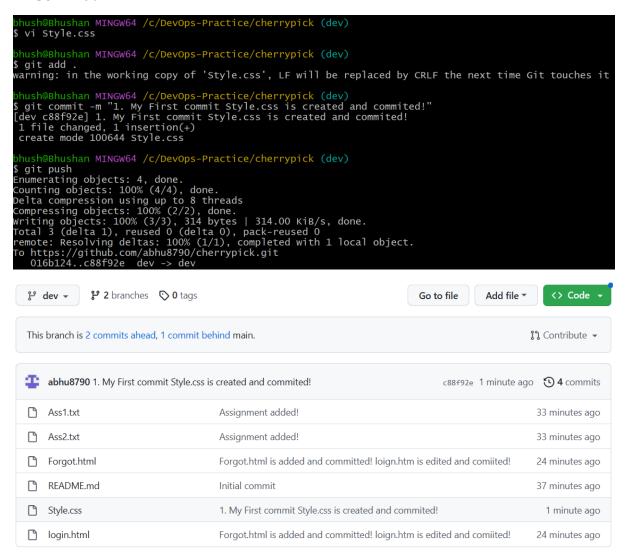
Use Case 2) Create a use case for cherry pick few commits from feature branch [3 out of 5 commits] and merge that on master.

**Point 1:** We have master branch on that we have 4 files. Similarly, if we create dev branch from main all the files are reflected in dev branch.



**Point 2:** Now we are in dev branch. Here we create file Style.css and edit file Ass3.txt 4 times. Stage, commit it and push it to dev branch **one by one**. But after pushing I realize that I wanted to push it on main branch but I push it on to dev branch.

#### 1st Commit:



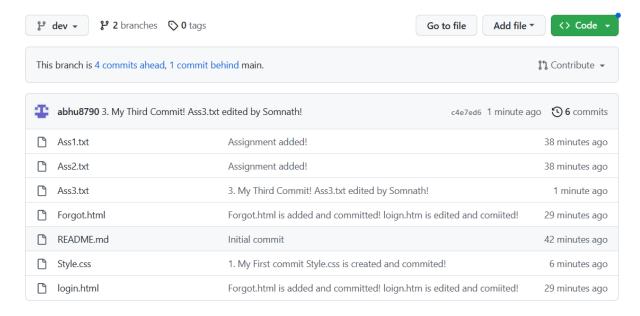
#### 2<sup>nd</sup> Commit:

```
ush@Bhushan
vi Ass3.txt
 hush@Bhushan MINGW64 /c/DevOps-Practice/cherrypick (dev)
s git add .
varning: in the working copy of 'Ass3.txt', LF will be replaced by CRLF the next time Git touches in
chush@Bhushan MINGW64 /c/DevOps-Practice/cherrypick (dev)
g git commit -m "2. My Second Commit! Ass3.txt edited by Pratik!"
dev 8efe005] 2. My Second Commit! Ass3.txt edited by Pratik!
I file changed, I insertion(+)
create mode 100644 Ass3.txt
         @Bhushan MINGW64 /c/DevOps-Practice/cherrypick (dev)
  git push
$ git push
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), 314 bytes | 314.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/abhu8790/cherrypick.git
c88f92e..8efe005 dev -> dev
   ೪ dev ₹
                     Go to file
                                                                                                                                            Add file ▼
                                                                                                                                                                <> Code ▼
   This branch is 3 commits ahead, 1 commit behind main.
                                                                                                                                                          11 Contribute •
   abhu8790 2. My Second Commit! Ass3.txt edited by Pratik!
                                                                                                                                           8efe005 now 🖰 5 commits
   Ass1.txt
                                                            Assignment added!
                                                                                                                                                            36 minutes ago
   Ass2.txt
                                                            Assignment added!
                                                                                                                                                            36 minutes ago
                                                            2. My Second Commit! Ass3.txt edited by Pratik!
   Ass3.txt
                                                            Forgot.html is added and committed! loign.htm is edited and comiited!
   P Forgot.html
                                                                                                                                                            27 minutes ago
        README.md
                                                                                                                                                            40 minutes ago
   Style.css
                                                             1. My First commit Style.css is created and commited!
                                                                                                                                                             4 minutes ago
   login.html
                                                             Forgot.html is added and committed! loign.htm is edited and comiited!
                                                                                                                                                            27 minutes ago
```

## 3<sup>rd</sup> Commit:

```
bhush@Bhushan MINGW64 /c/DevOps-Practice/cherrypick (dev)
$ vi Ass3.txt

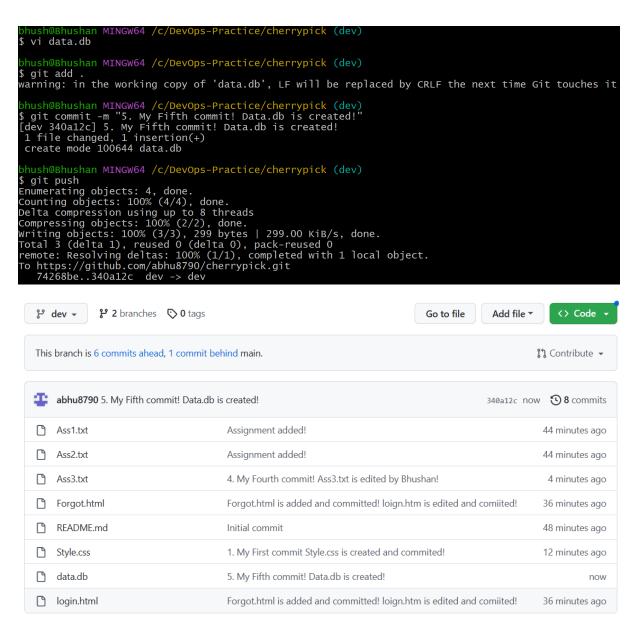
bhush@Bhushan MINGW64 /c/DevOps-Practice/cherrypick (dev)
$ git add .
warning: in the working copy of 'Ass3.txt', LF will be replaced by CRLF the next time Git touches it
bhush@Bhushan MINGW64 /c/DevOps-Practice/cherrypick (dev)
$ git commit -m "3. My Third Commit! Ass3.txt edited by Somnath!"
[dev c4e7ed6] 3. My Third Commit! Ass3.txt edited by Somnath!
1 file changed, 1 insertion(+)
bhush@Bhushan MINGW64 /c/DevOps-Practice/cherrypick (dev)
$ git push
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 8 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 321 bytes | 321.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/abhu8790/cherrypick.git
8efe005..c4e7ed6 dev -> dev
```



## 4th Commit:

This	This branch is 5 commits ahead, 1 commit behind main.		ĵ,	\$7 Contribute ▼	
4	abhu8790 4. My Fourth commit! Ass3.tx	t is edited by Bhushan! 7426	8be NOW	₹ 7 commits	
	Ass1.txt	Assignment added!		40 minutes ago	
	Ass2.txt	Assignment added!		40 minutes ago	
	Ass3.txt	4. My Fourth commit! Ass3.txt is edited by Bhushan!		now	
	Forgot.html	Forgot.html is added and committed! loign.htm is edited and comiit	ed!	32 minutes ago	
	README.md	Initial commit		44 minutes ago	
	Style.css	1. My First commit Style.css is created and commited!		8 minutes ago	
	login.html	Forgot.html is added and committed! loign.htm is edited and comiit	ed!	32 minutes ago	

#### 5th Commit:



**Point 3:** Now when run git log command we get commit history. Use SHA of the commit that you mistakenly push to wrong branch and cherry pick it.

a) When we run git log command we get the history as follows:

```
bhush@Bhushan MINGw64 /c/DevOps-Practice/cherrypick (dev)

§ git log --graph --pretty=oneline

* 340a12ca39d63e64fd3d3097ac7c2ab8b267eb7f (HEAD -> dev, origin/dev) 5. My Fifth commit! Data.db is created!

* 74268beba64da5126fe3af1d43340f731d6b762e 4. My Fourth commit! Ass3.txt is edited by Bhushan!

* c4e7ed6bfab81la0517152ffe9142a2c6b25a829 3. My Third Commit! Ass3.txt edited by Somnath!

* 8efe0050083b9de4cade4e246c3aled32880bb61 2. My Second Commit! Ass3.txt edited by Pratik!

* c88f92e87e9a09605e787b5936bdb287c752ce01 1. My First commit Style.css is created and commited!

* 016b124181c352233cb873783648927d59d55fba Forgot.html is added and committed! loign.htm is edited and comiited!

* 38ef886b6ebe474c69e6lec0fbd71fcee9bf1cfb Assignment added!

* ff7b752e281f60d864f8e41f3a2414add3f62d77 Initial commit
```

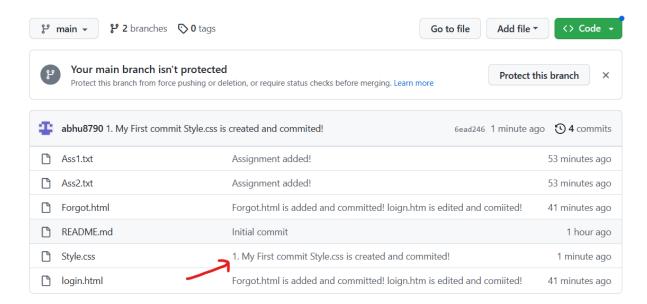
- b) Now use SHA of the commit that you mistakenly push to wrong branch and cherry-pick it.
- i) First select the SHA of that commit where we create Style.css file and cherry-pick it.

```
bhush@Bhushan MINGW64 /c/DevOps-Practice/cherrypick (dev)

§ git checkout main'
Your branch is up to date with 'origin/main'.

bhush@Bhushan MINGW64 /c/DevOps-Practice/cherrypick (main)
§ git cherry-pick c88f92e87e9a09605e787b5936bdb287c752ce01
[main 6ead246] 1. My First commit Style.css is created and commited!
Date: Sun Mar 19 01:04:41 2023 +0530
1 file changed, 1 insertion(+)
create mode 100644 Style.css

bhush@Bhushan MINGW64 /c/DevOps-Practice/cherrypick (main)
§ git push
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), 316 bytes | 316.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/abhu8790/cherrypick.git
bb49603..6ead246 main -> main
```



ii) Now we select the SHA of that commit where we edit Ass.txt file by Somnath and cherry-pick it. But we got the merge conflict because we update the existing file. To solve the conflicts use mergetool command and use—continue option to continue cherry-picking as follows:

```
S git cherry-pick c4e7ed6bfrbb11a0517157ffe9142a2c6b2s3e29
CONFLOT (modify/delere): Ass1.txt deleted in Hab and modified in c4e7ed6 (3. My Third Commit! Ass3.txt edited by Som nath!). Version c4e7ed6 (3. My Third Commit! Ass3.txt edited by Somnath!) of Ass3.txt left in tree. error: could not apply c4e7ed6... 3. My Third Commit! Ass3.txt edited by Somnath!

Int: Git add/my opathspee. the run

Int: You can instead skip third the writh "git cherry-pick --skip".

Int: You can instead skip third the state before "git cherry-pick".

Int: You can instead skip third the state before "git cherry-pick".

Int: To about and get back to the state before "git cherry-pick".

Int: To about and get back to the state before "git cherry-pick".

Int: To about and get back to the state before "git cherry-pick".

Int: To about and get back to the state before "git cherry-pick".

Int: To about and get back to the state before "git cherry-pick".

Int: To about and get back to the state before "git cherry-pick".

Int: To about and get back to the state before "git cherry-pick".

Int: To about and get back to the state before "git cherry-pick".

Int: To about and get back to the state before "git cherry-pick".

Int: To about and get back to the state before "git cherry-pick".

Int: To about and get back to the state before "git cherry-pick".

Int: To about and get back to the state before "git cherry-pick".

Int: To about and get back to the state before "git cherry-pick".

Int: To about and get back to the state before "git cherry-pick "git help configured".

Int: To about and get back to the state before "git cherry-pick".

Int: To about and get back to the state before "git cherry-pick".

Int: To about and get back to the state before git cherry-pick "git cherry-pick".

Int: To about and get back to the state before git cherry-pick "git cherry-pick".

Int: To about and get back to the state before git cherry-pick "git cherry-pick".

Int: To about and get back to the state before git cherry-pick "git cherry-pick".

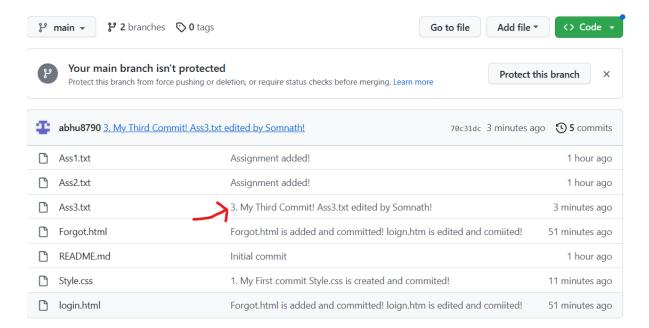
Int: To about and g
```

```
bhush@Bhushan MINGW64 /c/DevOps-Practice/cherrypick (main|CHERRY-PICKING)
$ git push
Everything up-to-date

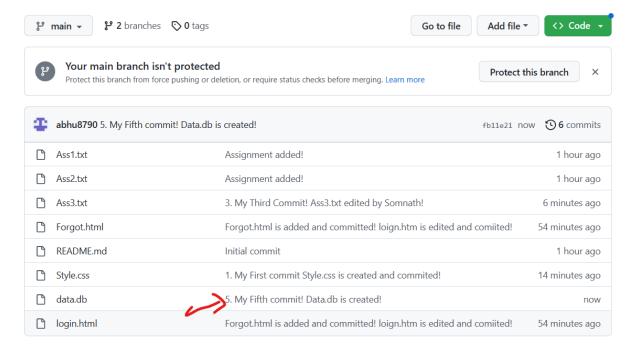
bhush@Bhushan MINGW64 /c/DevOps-Practice/cherrypick (main|CHERRY-PICKING)
$ git cherry-pick --continue
[main 70c31dc] 3. My Third Commit! Ass3.txt edited by Somnath!

Date: Sun Mar 19 01:10:09 2023 +0530
1 file changed, 2 insertions(+)
create mode 100644 Ass3.txt

bhush@Bhushan MINGW64 /c/DevOps-Practice/cherrypick (main)
$ git push
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 8 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 336 bytes | 336.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/abhu8790/cherrypick.git
6ead246..70c31dc main -> main
```



# iii) Now, we select the SHA of that commit where we create a new file data.db and cherry-pick it.



iv) Now, we checkout dev branch and create 2 files f1.txt and f2.txt. Stage, commit and push it one by one. Now checkout to main branch because we push that commit on wrong branch want push it main so use cherry-pick. Use git log to check SHA and select the 2 SHA of that commit where we create 2 new files f1.txt and f2.txt and cherry-pick it.

# [Here we are trying with 2 SHA on single command]

```
bhush@Bhushan MINGW64 /c/DevOps-Practice/cherrypick (dev)
5 vi fl.txt
bhush@Bhushan MINGW64 /c/DevOps-Practice/cherrypick (dev)
5 git add.
warning: in the working copy of 'fl.txt', LF will be replaced by CRLF the next time Git touches it
bhush@Bhushan MINGW64 /c/DevOps-Practice/cherrypick (dev)
5 git commit = "fl.txt is added!"
2 files changed, 3 insertions(+)
create mode 100644 Ass3.txt.orig
create mode 100644 fl.txt

bhush@Bhushan MINGW64 /c/DevOps-Practice/cherrypick (dev)
5 git push
5 git push
6 git push
6 git push
7 git push
8 git push
8 git push
9 g
```

```
git log --graph --pretty=oneline
         it log --graph --pretty=oneline
178c88ea60c624c8b39b02876ae593d7b433ea0 (HEAD -> dev, origin/dev) f2.txt is added!
178c88ea60c624c8b39b02876ae593d7b433ea0 (HEAD -> dev, origin/dev) f2.txt is added!
10a12ca39d63e64fd3d3097ac7c2ab8b267eb7f 5. My Fifth commit! Data.db is created!
1268beba64da5126fe3af1d43340f731d6b762e 4. My Fourth commit! Ass3.txt is edited by Bhushan!
1268beba64da5127152ffe9142a2c6b25a829 3. My Third Commit! Ass3.txt edited by Somnath!
126fe0050083b9de4cade4e246c3aled32880bb61 2. My Second Commit! Ass3.txt edited by Pratik!
128f92e87e9a09605e787b5936bdb287c752ce01 1. My First commit Style.css is created and commited!
128f886b6ebe474c69e6lec0fbd7lfcee9bf1cfb Assignment added!
128f886b6ebe474c69e6lec0fbd7lfcee9bf1cfb Assignment added!
128f7b752e28lf60d864f8e4lf3a2414add3f62d77 Initial commit
 ohush@Bhushan MINGW64 /c/DevOps-Practice/cherrypick (dev)
git checkout main
Gwitched to branch 'main'
Your branch is up to date with 'origin/main'.
bhush@Bhushan MINGW64 /c/DevOps-Practice/cherrypick (main)

§ git cherry-pick fa78c88ea60c624c8b39b02876ae593d7b433ea0 cf55b8bc118665fcd6731d6d7e5aa028010dae98
[main 2d71d6c] f2.txt is added!
Date: Sun Mar 19 01:41:41 2023 +0530

2 files changed, 2 insertions(+)
create mode 100644 1
create mode 100644 f2.txt
[main 298a24b] f1.txt is added!
Date: Sun Mar 19 01:40:34 2023 +0530

2 files changed, 3 insertions(+)
create mode 100644 Ass3.txt.orig
create mode 100644 f1.txt
               Bhushan MINGW64 /c/DevOps-Practice/cherrypick (main)
    git push
$ git push
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% (6/6), 520 bytes | 520.00 KiB/s, done.
Total 6 (delta 2), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (2/2), completed with 1 local object.
To https://github.com/abhu8790/cherrypick.git
    fblle21..298a24b main -> main
       ழ° main ▼
                                       မှီ 2 branches 🤝 0 tags
                                                                                                                                                                                            Go to file
                                                                                                                                                                                                                            Add file ▼
                                                                                                                                                                                                                                                         <> Code →
                     Your main branch isn't protected
                                                                                                                                                                                                                            Protect this branch
                     Protect this branch from force pushing or deletion, or require status checks before merging. Learn more
       abhu8790 f1.txt is added!
                                                                                                                                                                                                      298a24b 8 minutes ago 🖰 8 commits
       <u>1</u>
                                                                                                f2.txt is added!
                                                                                                                                                                                                                                                     8 minutes ago
       Ass1.txt
                                                                                                Assignment added!
                                                                                                                                                                                                                                                           1 hour ago
       Ass2.txt
                                                                                                Assignment added!
                                                                                                                                                                                                                                                           1 hour ago
       Ass3.txt
                                                                                                3. My Third Commit! Ass3.txt edited by Somnath!
                                                                                                                                                                                                                                                   20 minutes ago
       Ass3.txt.orig
                                                                                                f1.txt is added!
                                                                                                                                                                                                                                                     8 minutes ago
              Forgot.html
                                                                                                Forgot.html is added and committed! loign.htm is edited and comiited!
                                                                                                                                                                                                                                                           1 hour ago
                README.md
                                                                                                Initial commit
       1 hour ago
              Style.css
                                                                                                1. My First commit Style.css is created and commited!
                                                                                                                                                                                                                                                   28 minutes ago
       data.db
                                                                                                5. My Fifth commit! Data.db is created!
                                                                                                                                                                                                                                                    14 minutes ago
                                                                                        f1.txt is added!
       f1.txt
                                                                                                                                                                                                                                                     8 minutes ago
                                                                                          f2.txt is added!
       f2.txt
                                                                                                                                                                                                                                                     8 minutes ago
```

Forgot.html is added and committed! loign.htm is edited and comiited!

1 hour ago

login.html

fa78c88ea60c624c8b39b02876ae593d7b433ea0

cf55b8bc118665fcd6731d6d7e5aa028010dae98