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Batch : 119(7am)

Create two branches and merge them:

Branch: A branch represents a seperate line of development in a git project. It allows you to work on different parts of the project without directly impacting the main branch.

Git init: git init convert normal directory to git directory.

```
hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop (master)

hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop (master)

cd 119am

hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (master)

ls -a

./ ../

hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (master)

git init
Initialized empty Git repository in C:/Users/hp/Desktop/119am
/.git/
```

```
hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (master)
$ vi file1
hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (master)
$ git add .
warning: in the working copy of 'file1', LF will be replaced
by CRLF the next time Git touches it
hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (master) $ git commit -m "1st commit"
[master (root-commit) 292035b] 1st commit
1 file changed, 6 insertions(+)
 create mode 100644 file1
hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (master)
$ git log
commit 292035b05e03a06b3b323b9fbd4d59502f84db33 (HEAD -> mast
Author: harishaeyya <harishaeyya@gmail.com>
        Mon Apr 8 14:49:06 2024 +0530
   1st commit
```

• Default branch is master

```
hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (master)

* git branch

* master

hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (master)

$ git branch dev

hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (master)

$ git branch
    dev

* master
```

• When created newbranch data of existing branch is copied to new branch

```
hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (master)
$ git checkout dev
Switched to branch 'dev'

hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (dev)
$ ls
file1
```

```
np@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (dev)
$ vi file2
hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (dev)
$ git add .
warning: in the working copy of 'file2', LF will be replaced
by CRLF the next time Git touches it
hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (dev)
$ git commit -m "2nd commit"
[dev 20a7bd5] 2nd commit
 1 file changed, 4 insertions(+)
 create mode 100644 file2
hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (dev)
$ vi file3
hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (dev)
$ git add .
warning: in the working copy of 'file3', LF will be replaced
by CRLF the next time Git touches it
hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (dev) $ git commit -m "3rd commit" [dev 6240267] 3rd commit
 1 file changed, 5 insertions(+)
 create mode 100644 file3
hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (dev)
$ 1s
       file2 file3
 ile1
```

git-merge:Join two or more development histories together

Incorporates changes from the named commits into the current branch. This command is used by git push to incorporate changes from another repository and can be used by hand to merge changes from one branch into another.

```
hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (dev)
$ git checkout master
Switched to branch 'master'

hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (master)
$ git merge dev
Updating 292035b..6240267
Fast-forward
file2 | 4 ++++
file3 | 5 +++++
2 files changed, 9 insertions(+)
create mode 100644 file2
create mode 100644 file3

hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (master)
$ ls
file1 file2 file3
```

Create a direcory and push in the repository:

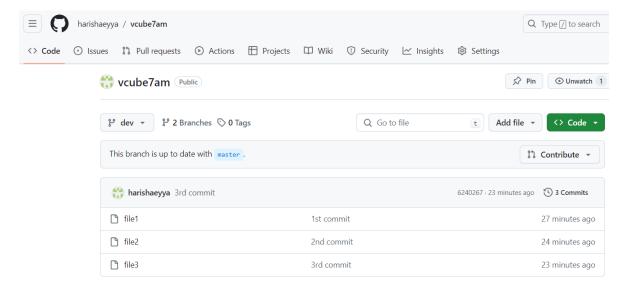
Open github and open new repository

- a. create a repository vcube7am
- b. Copy the git remote add origin and past it gitbash
- c. Then use the push command the data moved to the loacal repository master branch
- d. Use the git checkout dev command, then use the push command the data moved to the loacal repository dev branch

```
$ git remote add origin git@github.com:harishaeyya/vcube7am.g
hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (master)
$ git push origin master
Enumerating objects: 9, done.
Counting objects: 100% (9/9), done.
Delta compression using up to 4 threads
Compressing objects: 100% (5/5), done.
Writing objects: 100% (9/9), 686 bytes | 686.00 KiB/s, done.
Total 9 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), done.
To github.com:harishaeyya/vcube7am.git
   [new branch]
                        master -> master

    ■ harishaeyya / vcube7am

                                                                  Q Type // to search
 <> Code ⊙ Issues $\mathbb{1}$ Pull requests ⊙ Actions 	☐ Projects □ Wiki ① Security └∠ Insights ⑫ Settings
                                                               the vcube7am (Public)
           <> Code ▼
                                            Q Go to file
                                                           t Add file 🕶
            narishaeyya 3rd commit
                                                         6240267 · 15 minutes ago 3 Commits
           file1
                                      1st commit
                                                                    19 minutes ago
           file2
                                      2nd commit
                                                                    17 minutes ago
           file3
                                      3rd commit
                                                                    15 minutes ago
hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (master)
 git checkout dev
Switched to branch 'dev'
hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (dev)
 git push origin dev
Total O (delta O), reused O (delta O), pack-reused O
remote: Create a pull request for 'dev' on GitHub by visiting:
               https://github.com/harishaeyya/vcube7am/pull/new/dev
remote:
To github.com:harishaeyya/vcube7am.git
   [new branch]
                       dev -> dev
```



Commit the changes to the file and use cherry pick to commit changes b/w branches:

```
hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (dev)
$ vi file4

hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (dev)
$ git add .
warning: in the working copy of 'file4', LF will be replaced by CRLF the next time Git touches it
hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (dev)
$ git commit -m "4th commit"
[dev 63dbfc2] 4th commit
1 file changed, 7 insertions(+)
create mode 100644 file4
```

```
hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (dev)
$ vi file4

hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (dev)
$ git add .
warning: in the working copy of 'file4', LF will be replaced by CRLF the next time Git touches it

hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (dev)
$ git commit -m "5th commit"
[dev 6cdb63c] 5th commit
1 file changed, 4 insertions(+), 1 deletion(-)
```

```
commit 6cdb63c008687688f299eb5feb99a2e1b43139e1 (HEAD -> dev)
Author: harishaeyya <harishaeyya@gmail.com>
Date: Mon Apr 8 15:22:53 2024 +0530

        5th commit

commit 63dbfc29313a28ee52ea0090c866eeeec4ecabd7
Author: harishaeyya <harishaeyya@gmail.com>
Date: Mon Apr 8 15:20:01 2024 +0530

        4th commit

commit 6240267cfc0a1dc938804276a8c91ab9b1265832 (origin/master, origin/dev, master)
Author: harishaeyya <harishaeyya@gmail.com>
Date: Mon Apr 8 14:52:58 2024 +0530

        3rd commit

commit 20a7bd56f4a120d502cfa299a944ade54c42296a
Author: harishaeyya <harishaeyya@gmail.com>
Date: Mon Apr 8 14:51:46 2024 +0530

        2nd commit

commit 292035b05e03a06b3b323b9fbd4d59502f84db33
Author: harishaeyya <harishaeyya@gmail.com>
Date: Mon Apr 8 14:49:06 2024 +0530

Author: harishaeyya <harishaeyya@gmail.com>
Date: Mon Apr 8 14:49:06 2024 +0530
```

Cherry-pick: Cherry-picking in git allows you to select a specific commit from one branch and apply it to another branch.

```
hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (dev)
 git checkout master
Switched to branch 'master'
hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (master)
$ git cherry-pick 63dbfc293
[master dfbe7dc] 4th commit
Date: Mon Apr 8 15:20:01 2024 +0530
1 file changed, 7 insertions(+)
create mode 100644 file4
hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (master)
$ 1s
file1 file2 file3 file4
hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (master)
$ cat file4
5555555
222222
444444
1111111
6666666
aaaaaaa
```

```
np@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (master)
$ git log
commit dfbe7dc70529c7e44c1eaec10648230d1b4cc285 (HEAD -> master)
Author: harishaeyya <harishaeyya@gmail.com>
Date: Mon Apr 8 15:20:01 2024 +0530
     4th commit
commit 6240267cfc0a1dc938804276a8c91ab9b1265832 (origin/master, origin/dev)
Author: harishaeyya <harishaeyya@gmail.com>
         Mon Apr 8 14:52:58 2024 +0530
     3rd commit
commit 20a7bd56f4a120d502cfa299a944ade54c42296a
Author: harishaeyya <harishaeyya@gmail.com>
Date: Mon Apr 8 14:51:46 2024 +0530
     2nd commit
commit 292035b05e03a06b3b323b9fbd4d59502f84db33
Author: harishaeyya <harishaeyya@gmail.com>
Date: Mon Apr 8 14:49:06 2024 +0530
     1st commit
np@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (dev)
```

```
$ git log
commit 6cdb63c008687688f299eb5feb99a2e1b43139e1 (HEAD -> dev)
Author: harishaeyya <harishaeyya@gmail.com>
Date: Mon Apr 8 15:22:53 2024 +0530
     5th commit
commit 63dbfc29313a28ee52ea0090c866eeeec4ecabd7
Author: harishaeyya <harishaeyya@gmail.com>
         Mon Apr 8 15:20:01 2024 +0530
Date:
     4th commit
commit 6240267cfc0a1dc938804276a8c91ab9b1265832 (origin/master, origin/dev)
Author: harishaeyya <harishaeyya@gmail.com>
Date: Mon Apr 8 14:52:58 2024 +0530
     3rd commit
commit 20a7bd56f4a120d502cfa299a944ade54c42296a
Author: harishaeyya <harishaeyya@gmail.com>
Date: Mon Apr 8 14:51:46 2024 +0530
     2nd commit
commit 292035b05e03a06b3b323b9fbd4d59502f84db33
Author: harishaeyya <harishaeyya@gmail.com>
         Mon Apr 8 14:49:06 2024 +0530
Date:
```

```
hp@DESKTOP-IOD7VPG MINGW64 ~/Desktop/119am (dev)
$ git diff dfbe7dc 6cdb63c
diff --git a/file4 b/file4
index b0b5cac..c188069 100644
--- a/file4
+++ b/file4
@@ -4,4 +4,7 @@
1111111
66666666
aaaaaaa
-
+BBBBBBB
+CCCCCCC
+DDDDDDD
+EEEEEEE
```

