Operations and commands related to Branches

git add (*/.) - stage the changes
git commit -m"---" -commit the changes in the branch
git checkout master -master is now clean and changes are saved in the branch

git push origin master(local): this is to push into local server not github
git log
git log -l
git log --oneline
git log --stats

git rm file   removes file from rep
git rm --cached file

git diff flags
git commit -a -m "a
git checkout -b new branch: checks out the branch i.e. head will move and work in that branch
git stash : saves on a stack of unfinished changes that can be reapplied anytime (even on different branch)
stashing takes the dirty state of your working directory --
git stash show: changes made on the source

- git diff --staged: committed to the staged
- git status -s/--short: shows the file you have added
- diff --git a/<txtname> b/<txtname>
- git commit -a -m
- git diff --staged --no-renames: renamed files are not shown
- git log -l:details
- git log -oneline:info in oneline
- git rm -cached <txtname>

- git push origin master(local): this is to push into local server not github
- git log
- git log -l
- git log --oneline
- git log --stats

- git rm file   removes file from rep
- git rm --cached file

git branch -m <oldbranch> <newbranch> : renaming the branch

git branch -d <branchname> : deleting the branch

before committing the branch if you want to delete then use -D as flag to force it to delete it

git branch -D <branchname>

git merge: now merging with local rep

git diff master origin/master: difference from local to remote server

git pull

git diff : changed and not staged for commit

git diff --cached (git commit):changed and staged for commit

git diff HEAD (git commit -a): changed since last commit

git diff <commit>: specific commit and current

git diff --cached <commit>: specific commit and staged

git diff <commit> <commit>: difference between 2 commits

git stash save "": saving it in stash not in local server

git statsh list

git stach apply <stash@{2}>:

git stach pop: this is popping lifo file

git reset --hard:

```
Microsoft Windows [Version 10.0.19042.804]
(c) 2020 Microsoft Corporation. All rights reserved.

D:\UST\Devops\Branches>git init
Initialized empty Git repository in D:/UST/Devops/Branches/.git/

D:\UST\Devops\Branches>add file1.txt
'add' is not recognized as an internal or external command,
operable program or batch file.

D:\UST\Devops\Branches>git add file1.txt

D:\UST\Devops\Branches>git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   file1.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        file2.txt
        file3.txt


D:\UST\Devops\Branches>git checkout newBranch
error: pathspec 'newBranch' did not match any file(s) known to git

D:\UST\Devops\Branches>git checkout -b newBranch
Switched to a new branch 'newBranch'

D:\UST\Devops\Branches>git add file2.txt

D:\UST\Devops\Branches>git status
On branch newBranch

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   file1.txt
        new file:   file2.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        file3.txt
```

```
D:\UST\Devops\Branches>git commit -m "new branch commit"
[newBranch (root-commit) 115bbb0] new branch commit
 2 files changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 file1.txt
 create mode 100644 file2.txt

D:\UST\Devops\Branches>git status
On branch newBranch
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        file3.txt

nothing added to commit but untracked files present (use "git add" to track)

D:\UST\Devops\Branches>git checkout master
error: pathspec 'master' did not match any file(s) known to git

D:\UST\Devops\Branches>git checkout -b master
Switched to a new branch 'master'

D:\UST\Devops\Branches>git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        file3.txt

nothing added to commit but untracked files present (use "git add" to track)

D:\UST\Devops\Branches>git add file3.txt

D:\UST\Devops\Branches>git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   file3.txt


D:\UST\Devops\Branches>git commit -m "master file"
[master 08056a5] master file
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 file3.txt

D:\UST\Devops\Branches>git status
On branch master
nothing to commit, working tree clean

D:\UST\Devops\Branches>dir
 Volume in drive D is New Volume
```

```
 Volume in drive D is New Volume
 Volume Serial Number is 0693-3295

 Directory of D:\UST\Devops\Branches

01-03-2021  09:39    <DIR>          .
01-03-2021  09:39    <DIR>          ..
01-03-2021  09:38                 0 file1.txt
01-03-2021  09:38                 0 file2.txt
01-03-2021  09:39                 0 file3.txt
               3 File(s)              0 bytes
               2 Dir(s)  806,474,678,272 bytes free

D:\UST\Devops\Branches>git status
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   file1.txt
        modified:   file2.txt
        modified:   file3.txt

no changes added to commit (use "git add" and/or "git commit -a")

D:\UST\Devops\Branches>git add *

D:\UST\Devops\Branches>git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   file1.txt
        modified:   file2.txt
        modified:   file3.txt


D:\UST\Devops\Branches>git commit -m
error: switch `m' requires a value

D:\UST\Devops\Branches>git commit -m ""
Aborting commit due to empty commit message.

D:\UST\Devops\Branches>git commit -m "modified commit"
[master a88f635] modified commit
 3 files changed, 15 insertions(+)

D:\UST\Devops\Branches>git status
On branch master
nothing to commit, working tree clean
```

```
D:\UST\Devops\Branches>dir
 Volume in drive D is New Volume
 Volume Serial Number is 0693-3295

 Directory of D:\UST\Devops\Branches

01-03-2021  09:39    <DIR>          .
01-03-2021  09:39    <DIR>          ..
01-03-2021  09:47                24 file1.txt
01-03-2021  09:48                18 file2.txt
01-03-2021  09:48                18 file3.txt
               3 File(s)             60 bytes
               2 Dir(s)  806,474,678,272 bytes free

D:\UST\Devops\Branches>git checkout newBranch
Switched to branch 'newBranch'

D:\UST\Devops\Branches>dir
 Volume in drive D is New Volume
 Volume Serial Number is 0693-3295

 Directory of D:\UST\Devops\Branches

01-03-2021  09:49    <DIR>          .
01-03-2021  09:49    <DIR>          ..
01-03-2021  09:49                 0 file1.txt
01-03-2021  09:49                 0 file2.txt
               2 File(s)              0 bytes
               2 Dir(s)  806,474,674,176 bytes free

D:\UST\Devops\Branches>git status
On branch newBranch
nothing to commit, working tree clean

D:\UST\Devops\Branches>git checkout master
Switched to branch 'master'

D:\UST\Devops\Branches>git checkout newBranch
Switched to branch 'newBranch'

D:\UST\Devops\Branches>git status
On branch newBranch
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   file1.txt
        modified:   file2.txt
```

```
no changes added to commit (use "git add" and/or "git commit -a")

D:\UST\Devops\Branches>git add *

D:\UST\Devops\Branches>git commit -m "changed the newBranch files"
[newBranch 7fbc52a] changed the newBranch files
 2 files changed, 2 insertions(+)

D:\UST\Devops\Branches>git status
On branch newBranch
nothing to commit, working tree clean

D:\UST\Devops\Branches>dir
 Volume in drive D is New Volume
 Volume Serial Number is 0693-3295

 Directory of D:\UST\Devops\Branches

01-03-2021  09:51    <DIR>          .
01-03-2021  09:51    <DIR>          ..
01-03-2021  09:51                22 file1.txt
01-03-2021  09:51                10 file2.txt
               2 File(s)             32 bytes
               2 Dir(s)  806,474,674,176 bytes free

D:\UST\Devops\Branches>git checkout master
Switched to branch 'master'

D:\UST\Devops\Branches>dir
 Volume in drive D is New Volume
 Volume Serial Number is 0693-3295

 Directory of D:\UST\Devops\Branches

01-03-2021  09:52    <DIR>          .
01-03-2021  09:52    <DIR>          ..
01-03-2021  09:52                24 file1.txt
01-03-2021  09:52                18 file2.txt
01-03-2021  09:52                18 file3.txt
               3 File(s)             60 bytes
               2 Dir(s)  806,474,674,176 bytes free

D:\UST\Devops\Branches>git branch
* master
  newBranch

D:\UST\Devops\Branches>git chackout -b secondBranch
git: 'chackout' is not a git command. See 'git --help'.
```

```
The most similar command is
        checkout

D:\UST\Devops\Branches>git checkout -b secondBranch
Switched to a new branch 'secondBranch'

D:\UST\Devops\Branches>branches
'branches' is not recognized as an internal or external command,
operable program or batch file.

D:\UST\Devops\Branches>git branch
  master
  newBranch
* secondBranch

D:\UST\Devops\Branches>git checkout master
Switched to branch 'master'

D:\UST\Devops\Branches>git status
On branch master
nothing to commit, working tree clean

D:\UST\Devops\Branches>git checkout secondBranch
Switched to branch 'secondBranch'

D:\UST\Devops\Branches>git add file1.txt
```

```
D:\UST\Devops\Branches>git branch
  master
  newBranch
* secondBranch

D:\UST\Devops\Branches>git branches
git: 'branches' is not a git command. See 'git --help'.

D:\UST\Devops\Branches>git branch
  master
  newBranch
* secondBranch

D:\UST\Devops\Branches>git branch -m secondBranch thirdBranch

D:\UST\Devops\Branches>git branch
  master
  newBranch
* thirdBranch

D:\UST\Devops\Branches>git branch -d thirdBranch
error: Cannot delete branch 'thirdBranch' checked out at 'D:/UST/Devops/Branches'

D:\UST\Devops\Branches>git branch -D thirdBranch
error: Cannot delete branch 'thirdBranch' checked out at 'D:/UST/Devops/Branches'

D:\UST\Devops\Branches>git checkout secondBranch
error: pathspec 'secondBranch' did not match any file(s) known to git

D:\UST\Devops\Branches>git checkout newBranch
Switched to branch 'newBranch'

D:\UST\Devops\Branches>git branch -D thirdBranch
Deleted branch thirdBranch (was a88f635).

D:\UST\Devops\Branches>git branch
  master
* newBranch

D:\UST\Devops\Branches>
```

```
D:\UST\Devops\Branch>git branch
  master
* newBranch

D:\UST\Devops\Branch>dir
 Volume in drive D is New Volume
 Volume Serial Number is 0693-3295

 Directory of D:\UST\Devops\Branch

01-03-2021  11:43    <DIR>          .
01-03-2021  11:43    <DIR>          ..
01-03-2021  11:42                16 file2.txt
               1 File(s)             16 bytes
               2 Dir(s)  806,474,559,488 bytes free

D:\UST\Devops\Branch>git checkout master
Switched to branch 'master'
D       file1.txt

D:\UST\Devops\Branch>dir
 Volume in drive D is New Volume
 Volume Serial Number is 0693-3295

 Directory of D:\UST\Devops\Branch

01-03-2021  11:43    <DIR>          .
01-03-2021  11:43    <DIR>          ..
               0 File(s)              0 bytes
               2 Dir(s)  806,474,559,488 bytes free

D:\UST\Devops\Branch>git merge newBranch
Updating b3dcd1c..2a5e59e
Fast-forward
 file2.txt | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 file2.txt

D:\UST\Devops\Branch>dir
 Volume in drive D is New Volume
 Volume Serial Number is 0693-3295

 Directory of D:\UST\Devops\Branch

01-03-2021  11:44    <DIR>          .
01-03-2021  11:44    <DIR>          ..
01-03-2021  11:44                16 file2.txt
               1 File(s)             16 bytes
               2 Dir(s)  806,474,559,488 bytes free
```

```
D:\UST\Devops\Branch>git log --oneline
2a5e59e (HEAD -> master, newBranch) file 2
b3dcd1c file 1

D:\UST\Devops\Branch>git merge-base newBranch master
2a5e59e8f785f55c4ef035aa0e707384315863d7

D:\UST\Devops\Branch>git rebase -i 2a5e59e
error: cannot rebase: Your index contains uncommitted changes.
error: Please commit or stash them.

D:\UST\Devops\Branch>git branch
* master
  newBranch

D:\UST\Devops\Branch>git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        deleted:    file1.txt


D:\UST\Devops\Branch>git commit -m "changes"
[master 636cca7] changes
 1 file changed, 1 deletion(-)
 delete mode 100644 file1.txt

D:\UST\Devops\Branch>git rebase -i 2a5e59e
Successfully rebased and updated refs/heads/master.

D:\UST\Devops\Branch>git log --oneline
636cca7 (HEAD -> master) changes
2a5e59e (newBranch) file 2
b3dcd1c file 1

D:\UST\Devops\Branch>git reflog
636cca7 (HEAD -> master) HEAD@{0}: rebase (finish): returning to refs/heads/master
636cca7 (HEAD -> master) HEAD@{1}: rebase (start): checkout 2a5e59e
636cca7 (HEAD -> master) HEAD@{2}: commit: changes
2a5e59e (newBranch) HEAD@{3}: merge newBranch: Fast-forward
b3dcd1c HEAD@{4}: checkout: moving from newBranch to master
2a5e59e (newBranch) HEAD@{5}: checkout: moving from master to newBranch
b3dcd1c HEAD@{6}: checkout: moving from newBranch to master
2a5e59e (newBranch) HEAD@{7}: commit: file 2
b3dcd1c HEAD@{8}: checkout: moving from master to newBranch
b3dcd1c HEAD@{9}: commit (initial): file 1
```

```
D:\UST\Devops\Branch>git log --oneline
636cca7 (HEAD -> master) changes
2a5e59e (newBranch) file 2
b3dcd1c file 1

D:\UST\Devops\Branch>dir
 Volume in drive D is New Volume
 Volume Serial Number is 0693-3295

 Directory of D:\UST\Devops\Branch


01-03-2021  11:44    <DIR>          .
01-03-2021  11:44    <DIR>          ..
01-03-2021  11:44                16 file2.txt
               1 File(s)             16 bytes
               2 Dir(s)  806,474,428,416 bytes free

D:\UST\Devops\Branch>git cherry-pick b3dcd1c
[master 31ffc40] file 1
 Date: Mon Mar 1 11:41:03 2021 +0530
 1 file changed, 1 insertion(+)
 create mode 100644 file1.txt

D:\UST\Devops\Branch>dir
 Volume in drive D is New Volume
 Volume Serial Number is 0693-3295

 Directory of D:\UST\Devops\Branch


01-03-2021  15:05    <DIR>          .
01-03-2021  15:05    <DIR>          ..
01-03-2021  15:05                16 file1.txt
01-03-2021  11:44                16 file2.txt
               2 File(s)             32 bytes
               2 Dir(s)  806,474,428,416 bytes free

D:\UST\Devops\Branch>git status
On branch master
nothing to commit, working tree clean


D:\UST\Devops\Branch>
```

```
D:\UST\Devops\Branch>git checkout -b 1.0
Switched to a new branch '1.0'

D:\UST\Devops\Branch>git checkout -b 1.1
Switched to a new branch '1.1'

D:\UST\Devops\Branch>git checkout -b 1.3
Switched to a new branch '1.3'

D:\UST\Devops\Branch>code bugFix.txt

D:\UST\Devops\Branch>git status
On branch 1.3
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        bugFix.txt

nothing added to commit but untracked files present (use "git add" to track)

D:\UST\Devops\Branch>git add bugFix.txt

D:\UST\Devops\Branch>git commit -m "bugfix"
[1.3 7710262] bugfix
 1 file changed, 1 insertion(+)
 create mode 100644 bugFix.txt

D:\UST\Devops\Branch>git status
On branch 1.3
nothing to commit, working tree clean

D:\UST\Devops\Branch>git checkout 1.1
Switched to branch '1.1'

D:\UST\Devops\Branch>git log --oneline
31ffc40 (HEAD -> 1.1, master, 1.0) file 1
636cca7 changes
2a5e59e (newBranch) file 2
b3dcd1c file 1

D:\UST\Devops\Branch>git checkout 1.3
Switched to branch '1.3'

D:\UST\Devops\Branch>git log --oneline
7710262 (HEAD -> 1.3) bugfix
31ffc40 (master, 1.1, 1.0) file 1
636cca7 changes
2a5e59e (newBranch) file 2
b3dcd1c file 1
```

```
D:\UST\Devops\Branch>git checkout 1.1
Switched to branch '1.1'

D:\UST\Devops\Branch>git cherry-pick 7710262
[1.1 198e45e] bugfix
 Date: Mon Mar 1 15:38:37 2021 +0530
 1 file changed, 1 insertion(+)
 create mode 100644 bugFix.txt

D:\UST\Devops\Branch>dir
 Volume in drive D is New Volume
 Volume Serial Number is 0693-3295

 Directory of D:\UST\Devops\Branch

01-03-2021  15:39    <DIR>          .
01-03-2021  15:39    <DIR>          ..
01-03-2021  15:39                20 bugFix.txt
01-03-2021  15:05                16 file1.txt
01-03-2021  11:44                16 file2.txt
              3 File(s)             52 bytes
              2 Dir(s)  806,474,481,664 bytes free

D:\UST\Devops\Branch>git log --oneline
198e45e (HEAD -> 1.1) bugfix
31ffc40 (master, 1.0) file 1
636cca7 changes
2a5e59e (newBranch) file 2
b3dcd1c file 1

D:\UST\Devops\Branch>
```