GIT BASICS

```
HP@LAPTOP-KBHJGJAO MINGW64 ~
$ mkdir 17april

HP@LAPTOP-KBHJGJAO MINGW64 ~
$ cd 17april/

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april
$ pwd
/c/Users/HP/17april

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april
$ touch index.html
```

```
HP@LAPTOP-KBHJGJAO MINGW64 ~/17april
$ git init
Initialized empty Git repository in C:/Users/HP/17april/.git/

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (master)
$ ls
index.html

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (master)
$ ls -a
./  ../  .git/  index.html

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (master)
$ git add index.html

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (master)
$

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (master)
$ git status
On branch master

No commits yet

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


HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (master)
$ git commit -m "index file is created"
[master (root-commit) a0b8e9c] index file is created
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 index.html
```

```
HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (master)
$ git remote add origin https://github.com/divyakhandelw
al2211/regex-git.git

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (master)
$ git branch -M main

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main)
$ git push -u origin main
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Writing objects: 100% (3/3), 225 bytes | 225.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/divyakhandelwal2211/regex-git.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main)
$ ^C

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main)
$ touch index.css

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main)
$ git status
On branch main
Your branch is up to date with 'origin/main'.

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

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

```
HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main)
$ git add index.css

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main)
$ git commit -m "index.css file created"
[main 176cab2] index.css file created
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 index.css

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main)
$ git push
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Delta compression using up to 12 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (2/2), 257 bytes | 257.00 KiB/s, done.
Total 2 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/divyakhandelwal2211/regex-git.git
   a0b8e9c..176cab2  main -> main

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main)
$ git log
commit 176cab20608142f6a77021a8470a6185fbe88c11 (HEAD -> main, origin/main)
Author: divya khandelwal <itsdivya2211@gmail.com>
Date:   Thu Apr 17 10:39:36 2025 +0530

    index.css file created

commit a0b8e9c7969b27692b85fc056c4234b4c921278f
Author: divya khandelwal <itsdivya2211@gmail.com>
Date:   Thu Apr 17 10:24:06 2025 +0530

    index file is created
```

BRANCHING

```
HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main)
$ git branch
* main

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main)
$ git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main)
$ git branch development

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main)
$ git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main)
$ git branch
  development
* main

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main)
$ git checkout development
Switched to branch 'development'

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (development)
$ git branch
* development
  main
```

```
HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (development)
$ touch raj.txt

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (development)
$ ls
index.css   index.html   raj.txt

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (development)
$ git merge development
Already up to date.

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (development)
$ git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main)
$ ls
index.css   index.html   raj.txt

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main)
$ git checkout development
Switched to branch 'development'

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (development)
$ git status
On branch development
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        raj.txt

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

```
HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (development)
$ git add raj.txt

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (development)
$ git commit -m "raj file created in development branch"
[development ae0d8e3] raj file created in development branch
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 raj.txt

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (development)
$ git push -u origin development
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Delta compression using up to 12 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (2/2), 275 bytes | 137.00 KiB/s, done.
Total 2 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: Create a pull request for 'development' on GitHub by visiting:
remote:      https://github.com/divyakhandelwal2211/regex-git/pull/new/development
remote:
To https://github.com/divyakhandelwal2211/regex-git.git
 * [new branch]      development -> development
branch 'development' set up to track 'origin/development'.

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (development)
$ git merge development
Already up to date.
```

MERGE CONFLICT

```
HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main)
$ vi project.txt

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main)
$ git add project.txt
warning: in the working copy of 'project.txt', LF will be replaced by CRLF the next time Git touches it

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main)
$ git commit -m "project file in main branch"
[main e34510d] project file in main branch
 1 file changed, 1 insertion(+), 2 deletions(-)

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main)
$ git branch
  development
* main

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main)
$ git branch feature

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main)
$ git checkout feature
Switched to branch 'feature'

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (feature)
$ vi count.txt

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (feature)
$ rm count.txt
rm: cannot remove 'count.txt': No such file or directory

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (feature)
$ ls
index.css  index.html  project.txt
```

```
HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (feature)
$ vi project.txt

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (feature)
$ cat project.txt
this is my project on data science
second line on project

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (feature)
$ git add project.txt
warning: in the working copy of 'project.txt', LF will be replaced by CRLF the next time Git touches it

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (feature)
$ git commit -m "project file changed in feature branch
> "
[feature 06d0c19] project file changed in feature branch
 1 file changed, 2 insertions(+), 1 deletion(-)

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (feature)
$ git checkout main
Switched to branch 'main'
Your branch is ahead of 'origin/main' by 2 commits.
  (use "git push" to publish your local commits)

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main)
$ cat project.txt
this is my project

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main)
$ vi project.txt

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main)
$ git add project.txt
```

```
HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main)
$ git commit -m "change again in main branch"
[main 7cb4b7a] change again in main branch
 1 file changed, 1 insertion(+), 1 deletion(-)

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main)
$ cat project.txt
this is my project and i have to complete

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main)
$ git merge feature
Auto-merging project.txt
CONFLICT (content): Merge conflict in project.txt
Automatic merge failed; fix conflicts and then commit the result.
```

```
HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main|MERGING)
$ vi project.txt

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main|MERGING)
$ cat project.txt
this is my project on data science

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main|MERGING)
$ git add count.txt
fatal: pathspec 'count.txt' did not match any files

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main|MERGING)
$ git add project.txt

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main|MERGING)
$ git commit -m "final change done"
[main 9252402] final change done

HP@LAPTOP-KBHJGJAO MINGW64 ~/17april (main)
$ git push
Enumerating objects: 16, done.
Counting objects: 100% (16/16), done.
Delta compression using up to 12 threads
Compressing objects: 100% (11/11), done.
Writing objects: 100% (15/15), 1.25 KiB | 427.00 KiB/s, done.
Total 15 (delta 5), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (5/5), done.
To https://github.com/divyakhandelwal2211/regex-git.git
   176cab2..9252402  main -> main
```