**WEEK 8:**

**GIT:**

**1.GIT:**

git config --global user.name Satyam

git config --global user.email satyamsingh@gmail.com

git config --list

git config --global core.editor "C:/Program Files/Notepad++/notepad++.exe -multiInst -notabbar -nosession -noPlugin"

git status

echo "Hello, Git Lab!" > hello.txt

git add hello.txt

git status

git commit -m "Initial commit with hello.txt"

git remote add origin https://github.com/yourusername/git-lab-demo.git

git push -u origin main

git add hello.txt

git commit -m "Added second line"

git push

git pull

On branch main

No commits yet

nothing to commit (create/copy files and use "git add" to track)

Changes to be committed:

new file: hello.txt

echo "Hello, Git Lab!" > hello.txt

git add hello.txt

git commit -m "Initial commit with hello.txt"

[main (root-commit) abcd123] Initial commit with hello.txt

1 file changed, 1 insertion(+)

create mode 100644 hello.txt

git remote add origin https://github.com/yourusername/git-lab-demo.git

git push -u origin main

Enumerating objects: 3, done.

Counting objects: 100% (3/3), done.

...

To https://github.com/yourusername/git-lab-demo.git

\* [new branch] main -> main

Branch 'main' set up to track remote branch 'main' from 'origin'.

git commit

Updating abcd123..efgh456

Fast-forward

hello.txt | 1 +

1 file changed, 1 insertion(+)

**2.GIT:**

mkdir git-ignore-lab

cd git-ignore-lab

git init

Initialized empty Git repository in C:/path/to/git-ignore-lab/.git/

echo "This is a log file" > debug.log

mkdir log

echo "Log data inside folder" > log/test1.txt

echo "Important source code" > app.js

touch .gitignore

# Ignore all .log files

\*.log

# Ignore log folder

log/

git status

Untracked files:

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

app.js

debug.log

log/

git status

Untracked files:

.gitignore

app.js

git add .gitignore app.js

git commit -m "Added .gitignore to ignore .log files and log folder"

[main (root-commit) abc1234] Added .gitignore to ignore .log files and log folder

2 files changed, 2 insertions(+)

create mode 100644 .gitignore

create mode 100644 app.js

On branch main

nothing to commit, working tree clean

**3.GIT:**

git init

git branch -a

\* main

git branch feature1

git checkout feature1

git switch feature1

Switched to branch 'feature1'

echo "This is feature 1" > feature1.txt

git add feature1.txt

git commit -m "Added feature1.txt in feature1 branch"

git push -u origin feature1

git branch -a

\* feature1

main

remotes/origin/feature1

remotes/origin/main

Enumerating objects: 3, done.

Counting objects: 100% (3/3), done.

Writing objects: 100% (3/3), done.

Total 3 (delta 0), reused 0 (delta 0)

To https://github.com/yourusername/repo.git

\* [new branch] feature1 -> feature1

Branch 'feature1' set up to track remote branch 'feature1' from 'origin'.

mkdir git-merge-lab

cd git-merge-lab

git init

**4.GIT:**

mkdir git-merge-lab

cd git-merge-lab

git init

echo "Line One" > conflict.txt

echo "Original content." >> conflict.txt

git add conflict.txt

git commit -m "Initial commit on main branch"

git status

On branch main

nothing to commit, working tree clean

git switch -c feature

Line One

This change is from FEATURE branch.

git add conflict.txt

git commit -m "Change made in feature branch"

git switch main

Line One

This change is from MAIN branch.

git add conflict.txt

git commit -m "Change made in main branch"

git merge feature

Auto-merging conflict.txt

CONFLICT (content): Merge conflict in conflict.txt

Automatic merge failed; fix conflicts and then commit the result.

git add conflict.txt

git commit -m "Resolved merge conflict in conflict.txt"

[main f123456] Resolved merge conflict in conflict.txt

**5.GIT:**

git clone https://github.com/<username>/git-cleanup-lab.git

cd git-cleanup-lab

git branch

git status

\* main (or master)

On branch main

nothing to commit, working tree clean

git add .

git commit -m "Final clean commit"

git restore <file>

rm <filename>

git clean -f # Remove all untracked files

git clean -fd # Remove all untracked files and directories

git status

On branch main

nothing to commit, working tree clean

git push origin main

Enumerating objects: ...

Counting objects: ...

Writing objects: ...

To https://github.com/<username>/git-cleanup-lab.git

abcdef1..2345678 main -> main

git status

On branch main

nothing to commit, working tree clean