HOW TO GIT

What is Git?

Git is a version control system used for tracking changes in code
It allows multiple developers to work on the same project at the same time, managing changes through branches, merging and conflict resolution
Through commits, it is easy to revert to an earlier version of a project

git status

check the status of the working directory and staging area, showing if there are any changes to stage or commit

git add [file]

add changes in a specified file to staging, where they are waiting for the next commit

git commit -m „[commit message]“

commit changes from the staging area to the local repository with a descriptive message

git diff

show what has been changed but not staged

git diff --staged

show what has been staged but not yet commited

git log

display the commit history

git reset [file]

move a specified file from the staging area back to the unstaged area

git reset --hard [commit]

clear the staging area and rewrite the working tree from a specified commit

git rm [file]

delete the specified file from the repository and stage the removal

git mv [existing-path] [new-path]

move an existing file to a new file path and stage the move

git clone [url]

clone a repository from a remote source to the current directory

git pull

fetch the latest changes from the remote repository and merges them into your local branch

git push origin [branch]

update the remote repository with all commits onto a specified branch

git branch

list all branches of the repository

git branch [branch name]

create a new branch with a specified name at the current commit

git checkout [branch name]

switch to a specified branch

git merge [branch]

merge changes from a specified branch into the current branch

git init

initialize a new repository in the current directory

Best Practices

- always write clear commit messages
- commit often with small, logical changes
- use branches for features and bug fixes
- pull before you push to avoid merge conflicts
- review changes before merging
- squash your branch before merging