

BASIC GIT AND GITHUB GUIDE

Some basic file management commands

For Windows (Command Prompt):

1. `dir` - Lists files and directories in the current directory.
2. `cd [directory]` - Changes the current directory.
3. `mkdir [directory_name]` - Creates a new directory.
4. `del [file_name]` - Deletes a file.
 - `rmdir [directory] /S` - Removes a directory and its contents.
5. `copy [source] [destination]` - Copies files from one location to another.
6. `move [source] [destination]` - Moves or renames files or directories.
7. `type [file_name]` - Displays the contents of a file.
8. `attrib [file_name] [+/-R] [+/-H]` - Changes file attributes (read-only, hidden, etc.).
9. `findstr [pattern] [file_name]` - Searches for text within a file.

For Linux/macOS:

1. `ls` - Lists files and directories in the current directory.
2. `cd [directory]` - Changes the current directory to the specified one.
3. `mkdir [directory_name]` - Creates a new directory.
4. `rm [file_name]` - Removes a file.
 - `rm -r [directory]` - Removes a directory and its contents.
5. `cp [source] [destination]` - Copies files or directories from one location to another.
6. `mv [source] [destination]` - Moves or renames files or directories.
7. `touch [file_name]` - Creates an empty file.
8. `chmod [permissions] [file_name]` - Changes file permissions.
9. `find [directory] -name [file_name]` - Finds a file by its name.
10. `cat [file_name]` - Displays the contents of a file

Steps for adding file to github Repository

Here's a step-by-step guide to upload a file to GitHub from your local machine using basic Git commands:

Step 1: Install Git

If you don't have Git installed, you need to install it:

- For Windows : [Download Git](https://git-scm.com/download/win) and install it.
- For macOS : You can install it using Homebrew (``brew install git``).
- For Linux : Use the package manager:
 - Ubuntu/Debian : ``sudo apt install git``
 - Fedora : ``sudo dnf install git``

Step 2: Set Up Git

Install GitHub CLI from <https://cli.github.com/>

After installing goto command prompt

And type “

`gh auth login`

“

And follow on screen instructions to setup and give access to your github account.

Step 3: Create a GitHub Repository

1. Log in to [GitHub](https://github.com).
2. Click the + icon in the upper right corner and select New repository .
3. Name the repository and choose whether it should be public or private .
4. Click Create repository .

Step 4: Clone the Repository to Your Local Machine

1. Copy the repository URL from GitHub.
2. Open the terminal/command prompt, and use the ``git clone`` command to clone the repository to your local machine:

```
git clone https://github.com/your-username/your-repository.git
```

This creates a local copy of the repository on your computer.

Step 5: Add a File to the Repository

1. Navigate to the repository folder:

```
cd your-repository
```

2. Create or copy the file you want to upload into this folder. For example:

```
touch example.txt
```

Or you can manually place the file here using a file explorer.

Step 6: Stage the File for Commit

You need to tell Git that you want to include this file in the next commit. Use the ``git add`` command to stage the file:

```
git add example.txt
```

To add all files in the folder, you can use:

```
git add .
```

Step 7: Commit the Changes

After staging, you need to commit the file. A commit is like saving a version of your project:

```
git commit -m "Added example.txt"
```

The `-m`` flag allows you to add a commit message explaining the changes.

Step 8: Push the Changes to GitHub

Now, push the committed changes from your local machine to the GitHub repository:

```
git push origin main
```

- ``origin`` : Refers to the remote repository (GitHub).

- ``main`` : Refers to the branch (often called ``main`` or ``master`` depending on how your repository is set up).

GitHub will now contain the file you just uploaded.

Example:

Let's say you created a file named ``hello_world.py`` locally and you want to upload it:

1. Navigate to your project folder :

```
cd ~/projects/my_repo
```

2. Create or copy your file :

```
echo "print('Hello, World!')" > hello_world.py
```

3. Stage the file :

```
git add hello_world.py
```

4. Commit the file with a message :

```
git commit -m "Added hello_world.py"
```

5. Push the changes to GitHub :

```
git push origin main
```

Summary Of Git Commands:

1. `git clone [URL]` : Clones a remote repository to your local machine.
2. `git add [file]` : Stages a file for commit.
3. `git commit -m "[message]"` : Commits the changes with a message.
4. `git push origin [branch]` : Pushes the changes to the remote repository (GitHub).
5. `git status` : Shows the current status of the repository (files staged, untracked, etc.).
6. `git pull` : Pulls the latest changes from the remote repository to your local machine.