# GitHub guide for Beginners:

GitHub is a powerful platform for version control and collaboration. I'll guide you through the basics, including cloning a public repository, working with private repositories using access tokens, and branching.

## 1. Cloning a Public Repository:

Step 1: Go to the GitHub repository you want to clone.
Step 2: Click on the "Code" button.
Step 3: Copy the URL provided (should end with .git).
Step 4: Open your terminal or command prompt.
Step 5: Navigate to the directory where you want to clone the repository.
Step 6: Use the git clone command followed by the repository URL:

***git clone <repository_URL>***

This will clone the repository to your local machine.

## 2. Adding, Committing, and Pushing:

Step 1: Make changes to files in the cloned repository.
Step 2: Add the changes to the staging area:

***git add .***

(This adds all changed files. You can also specify individual files.)
Step 3: Commit the changes:

***git commit -m "Your commit message"***

Step 4: Push the changes to the remote repository:

***git push***

You may need to specify the branch name the first time using:

***git push -u origin <branch_name>***

## 3. Working with Private Repositories using Access Tokens:

Step 1: Generate a personal access token on GitHub. Go to Settings > Developer settings > Personal access tokens.
Step 2: Copy the generated token.
Step 3: Instead of using your password for authentication, use the access token. For example, if you're prompted for a password during a git push, paste the access token instead.

## 4. Branching:

Step 1: To create a new branch:

***git checkout -b <branch_name>***

Step 2: To switch between branches:

***git checkout <branch_name>***

Step 3: To list all branches:

***git branch***

Step 4: To delete a branch (locally):

***git branch -d <branch_name>***

Step 5: To delete a branch (remotely):

***git push origin --delete <branch_name>***

Step 6: To merge branches:
Switch to the branch you want to merge into.
Merge the other branch into the current branch:

***git merge <other_branch>***

Step 7: Resolve any merge conflicts if they occur.

**5. Switch between remote Repository**

Use the git remote set-url command to change the URL of the remote repository. For example:

***git remote set-url origin <new_remote_url>***

Double-Check Remote Configuration: Ensure that the origin remote is correctly set to the URL of the new repository. You can verify this by running:

***git remote -v***