

Here's a complete step-by-step guide for beginners to create a GitHub repository, add a README, clone it to your local computer, add files, commit, and push — using the modern way (2025 standards).

Step 1: Create a New Repository on GitHub

1. Go to <https://github.com> and sign in.
2. Click the + icon in the top-right → **New repository**.
3. Fill in:
 - Repository name (e.g., `my-project`)
 - Description (optional)
 - Choose **Public** or **Private**
 - ☒ Check "**Add a README file**" (this creates the README automatically)
 - (Optional) Add `.gitignore` and license if you want
4. Click **Create repository**

→ You now have a repo with a README.md file already in it.

Step 2: Get Your GitHub Credentials (Username & Password/Token)

GitHub no longer allows login with your account password for Git operations (since 2021). You must use a Personal Access Token (PAT) instead of a password.

How to create a Personal Access Token (2025 way):

1. Click your profile picture → **Settings**
 2. In the left sidebar: **Developer settings** → **Personal access tokens** → **Tokens (classic)**
 3. Click **Generate new token** → **Generate new token (classic)**
 4. Give it a name (e.g., "My Laptop 2025")
 5. Expiration: choose 30/90 days or "No expiration" (recommended for personal use)
 6. Scopes: at least check **repo** (full control of private repositories)
 7. Click **Generate token**
 8. ⚠️ Copy the token immediately (you can't see it again!)
- Your **username** = your GitHub username (visible on your profile)
 - Your **password** = the token you just copied (NOT your GitHub password)

Step 3: Install Git on Your Local Computer (if not already)

- Windows: Download from <https://git-scm.com/download/win>
- Mac: `brew install git` or Xcode Command Line Tools
- Linux: `sudo apt install git` (Ubuntu/Debian) or equivalent

Step 4: Clone the Repository to Your Desktop

Open terminal (or Git Bash on Windows) and run:

Bash



Copy

```
git clone https://github.com/YOUR-USERNAME/YOUR-REPO-NAME.git
```

Example:

Bash



Copy

```
git clone https://github.com/john123/my-project.git
```

It will ask for username and password:

- Username → your GitHub username
- Password → paste the Personal Access Token (it won't show when you paste)

Then go into the folder:

```
Bash
cd my-project
```



Step 5: Add New Files or Edit Existing Ones

Example: Create a new file called `index.html`

```
Bash
echo "<h1>Hello World</h1>" > index.html
```



Or edit the existing `README.md` with any editor (VS Code, nano, etc.)

Step 6: Commit and Push Your Changes

```
Bash

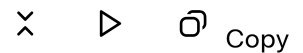
# See what changed
git status

# Stage all changes
git add .

# Or stage specific file
git add index.html

# Commit with a message
git commit -m "Add index.html and update README"

# Push to GitHub
git push
```



It will again ask for username + token (only the first time usually, then it's cached).

Bonus: Avoid Typing Credentials Every Time

Option 1 (Recommended) – Use credential helper (automatic caching)

On first push, Git will cache your token.

Or run once:

Bash



Copy

```
git config --global credential.helper cache
# Or for permanent storage (recommended):
git config --global credential.helper store
```

Option 2 – Use SSH (even better, no passwords ever)

If you want to switch to SSH later:

- Generate SSH key: `ssh-keygen -t ed25519 -C "your-email@example.com"`
- Add the public key to GitHub (Settings → SSH and GPG keys)
- Change remote URL: `git remote set-url origin git@github.com:username/repo.git`

Summary of Commands You'll Use Often

Bash



Copy

```
git clone https://github.com/username/repo.git
cd repo
# (make changes, add files)
git add .
git commit -m "Your message"
git push
```

That's it! You now have a full local → GitHub workflow.

Let me know your OS (Windows/Mac/Linux) if you want exact screenshots or commands!



Explain SSH setup in detail

↳ Best practices for README files