Create a Git Project and Push/Pull on Ubuntu

☐ Step 1: Install Git (if not installed)

Installing Git on Windows

1. Go to the official Git website: https://git-scm.com/downloads
2. Click **Download for Windows**.
3. Run the downloaded installer file.
4. **Git for Windows/x64 Setup.**
5. Once installed, open **Command Prompt** or **Git Bash** and type:

Installing Git on Ubuntu / Linux

Open the terminal and run:

```
sudo apt update
sudo apt install git -y
git --version
```

☐ Step 2: Create a Repository on GitHub

1. Go to https://github.com and log in.
2. Click **"New Repository"**.
3. Enter repository name (example: `git documentation`).
4. Keep it **public** (or private if you prefer).
5. Click **Create Repository**.
6. Copy the **HTTPS URL** (something like:
   `https://github.com/username/my-git-project.git`)

☐ Step 3: Configure Git (one-time setup)

```
Open Command Prompt or Git Bash
git config --global user.name "Your Name"
git config --global user.email "you@example.com"
```

You can verify settings:

```
git config –list
```

Step 4: Initialize Git Repository

```
git init
```

This command creates a new **.git** folder — it means Git is now tracking this directory.

Step 5: Git Clone

```
git clone ….( Repository Code )
ls
cd git documentation
ls
git init
```

Step 6: Create a File and Add Content

```
touch git.txt
echo "This is my first Git project" > git.txt
cat git.txt
git status
```

Step 7: Stage the File

```
git add git.txt
```

Step 8: Commit the File

```
git commit -m "this is update file"
git status
git log
git branch
git branch master
git branch
```

Steps 09: Create a GitHub Personal Access Token (PAT)

☐ Step 1: Log in to GitHub

Go to ☐ https://github.com and **sign in** to your account.

☐ Step 2: Go to Developer Settings

1. Click on your **profile picture** (top-right corner).
2. Select **Settings** from the dropdown.
3. On the left sidebar, scroll down and click **Developer settings**.

☐ Step 3: Choose "Personal Access Tokens"

1. Under **Developer settings**, click **Personal access tokens**.
2. Choose **Tokens (classic)** or **Fine-grained tokens** (recommended).

☐ Step 4: Create a New Token

- Click **"Generate new token"** → **"Generate new token (classic)"**.
- You'll be asked to **re-enter your password**.

☐ Step 5: Configure Token Details

Fill the form:

- **Note:** Write something like `Ubuntu Git Project Access`
- **Expiration:** Choose expiration period (e.g., 90 days or custom).
- **Scopes:** Select permissions based on your need:
  ✓Recommended for push/pull:
    o `repo` → (Full control of private repositories)
    o `read:org` → (Optional)
    o `workflow` → (Optional for CI/CD use)

Then click **"Generate token"**.

☐ Step 6: Copy and Save Your Token

☐ Important: Copy the token immediately after it's created — GitHub **won't show it again**.
Example token format:

`ghp_A1b2C3d4E5f6G7h8I9j0K1l2M3n4O5p6Q7r8`

Save it securely (e.g., in a password manager or text file).

⬆ Step 10: Push Code to GitHub

```
git push ……( URL of clone code )
```

You'll be prompted for your GitHub credentials or personal access token.

⬇ Step 11: Pull Updates (if any changes on GitHub)

If you or someone else made updates on GitHub, pull them:

```
git pull origin main
```

✅**Result:**
You've successfully created a **Git project**, **pushed** it to GitHub, and learned how to **pull** updates
back.