GitHub Workflow Guide: Step-by-Step for Beginners

✅Step 1: Create a New Repository on GitHub

1. Go to https://github.com
2. Click on **+** > **New repository**
3. Fill in:
4. **Repository name** (e.g., `My-Automation-Project`)
5. Description (optional)
6. Choose **Public** or **Private**
7. ✅Initialize with a README
8. Click **Create repository**

✅Step 2: Clone the Repository & Open in VS Code

1. Copy the **SSH URL** from the repo: Example:

```
git@github.com:your-username/My-Automation-Project.git
```

2. In terminal:

```
cd ~/Documents
git clone git@github.com:your-username/My-Automation-Project.git
cd My-Automation-Project
code .
```

This opens the repo in VS Code

✅Step 3: Setup Correct SSH Identity

1. Check if SSH keys exist:

```
ls ~/.ssh
```

If not, generate a personal key:

```
ssh-keygen -t ed25519 -C "your_personal_email@example.com"
# Save it as: ~/.ssh/id_ed25519_personal
```

2. Add config:

```
nano ~/.ssh/config
```

Paste:

```
Host github.com-personal
    HostName github.com
    User git
    IdentityFile ~/.ssh/id_ed25519_personal
```

3. Test connection:

```
ssh -T git@github.com-personal
```

4. Change remote in your project:

```
git remote set-url origin git@github.com-personal:your-username/My-Automation-Project.git
git remote -v
```

✅Step 4: Create a New Branch for Your Feature

```
# Create and switch to a new branch
git checkout -b feature/login

# Make changes, then stage and commit
git add .
git commit -m "Add login functionality"

# Push the new branch to GitHub
git push -u origin feature/login
```

✅Step 5: Create a Pull Request (PR)

1. Go to your repo on GitHub
2. You'll see an option: **Compare & pull request**. Click it.
3. Set:
4. **Base branch**: main
5. **Compare branch**: feature/login
6. Add title & description
7. Click **Create pull request**

✅Step 6: Code Review Workflow

• Reviewer(s) will:
• View the PR

- Add comments/suggestions
- Approve or request changes
- You can respond and push more commits:

```
git add .
git commit -m "Fix review comments"
git push
```

- GitHub updates the same PR automatically

✅Step 7: Merge the Pull Request

Once approved:

1. Go to the PR on GitHub
2. Click **Merge pull request** > **Confirm merge**
3. Optionally, click **Delete branch**

✅Step 8: Setup Branch Protection & Approvals (Admin)

1. GitHub repo > Settings > Branches
2. Add rule for `main`
3. ✅Require pull request reviews before merging
4. ✅Dismiss stale reviews
5. ✅Require status checks (optional)

✅Step 9: Keeping Your Local `main` Updated

```
# Switch to main branch
git checkout main

# Pull the latest changes
git pull origin main
```

You are now fully set up to collaborate, review, and manage your GitHub workflow professionally! 🚳