# What are Forks and Pull Requests?

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**Forking** 🍴 : A **fork** is your personal copy of someone else's project. You can freely make any changes to your fork without affecting the original project.

**Pull Request (PR)** 📥 : A **pull request** is how you propose your changes to the original project. It's you asking the project owner to "pull" your changes into their repository. This is the heart of collaboration on GitHub.

## Step 1: Fork the Repository on GitHub

This step is done on the website and is the same for everyone.

1. Navigate to the https://github.com/WNCCITProgram/NornNet repository on GitHub.

2. In the top-right corner of the page, click the **Fork** button.

3. Choose your GitHub account as the destination. GitHub will create a copy of the nornnet repository under your account (e.g., your-username/nornnet).

## Step 2: Clone Your Fork in GitHub Desktop

Let's get your personal copy of the project onto your computer.

1. Open the GitHub Desktop application.

2. Go to **File > Clone Repository...** (or press Ctrl+Shift+O).

3. In the "Clone a repository" window, make sure you are on the **GitHub.com** tab.

4. You will see a list of your repositories. Select your newly forked repository: your-username/nornnet

5. Choose a **Local Path** on your computer where you want to save the project files.

6. Click the **Clone** button.

## Step 3: Create a Branch and Make Changes

It's a best practice to create a new **branch** for each new feature or bug fix.

1. At the top of the GitHub Desktop window, click on the **Current Branch** dropdown (it will likely say main).

2. Click the **New Branch** button.

3. Give your branch a descriptive name (e.g., my-awesome-feature) and click **Create Branch**.

4. Now, open the project folder in your favorite code editor and make your changes. Add files, fix bugs, or write new code.

5. As you save files, your changes will automatically appear in the **Changes** tab in GitHub Desktop.

6. Review your changes. To commit them:

7. Write a brief, descriptive message in the **Summary** box at the bottom-left.

8. Click the blue **Commit to my-awesome-feature** button.

## Step 4: Push Your Changes to Your Fork

Pushing (or "publishing") sends your committed changes from your computer up to your forked repository on GitHub.

1. After committing, the main button at the top of the window will change. Click the **Publish branch** or **Push origin** button.

## Step 5: Open a Pull Request

This is the final step where you propose your changes to the original nornnet project.

2. After you push your branch, GitHub Desktop will often update the top bar with a new option. Click the **Create Pull Request** button.

3. This will open your web browser and take you directly to the "Open a pull request" page on GitHub. The correct repositories and branches will already be selected for you.

4. Write a clear **title** and a detailed **description** for your pull request. Explain *what* you changed and *why*.

5. Review the changes one last time and click the green **Create pull request** button.

You've successfully submitted your changes for review. The project maintainers will be notified and can merge your contribution if they approve it.