Practicing Git

as seen on bit.ly/Practicing-Git

Visiting the project on the web

Since this project is a website, we've specially configured the repository so that whenever there is a push to it, it is made visible on the web.

If your group's repository is called *waffle-castle.github.io*, then you can see that the shared version is visible on the web at http://waffle-castle.github.io/. This is just an example. Your group's repository page should be at schoolname-#.github.io (for example, princeton-1.github.io or princeton-2.github.io.)

But note that any changes in your *fork* won't show up there until the maintainer of the project merges those changes in.

To fork a project on Github

Start out logged in to Github

Visit the project you want to fork

Click the "Fork" button in the top-right

Wait for the animation to conclude

Notice that your browser is now visiting a copy of the project in your personal space, rather than the old, group-owned one. You should also see a "fork of..." remark in the top-left.

Now, clone to it to your computer

On the right side, look for the clone URL

Copy that to the clipboard

Open a terminal and type: "git clone " (including the space, but not including the quotation marks)

Use your terminal to "paste" the URL in. (Make sure it starts with *https*; if not, it is likely to cause problems if you do not have SSH keys set up, which you probably don't.)

Press enter to do the "git clone" operation.

Once you've done that, "cd" into the directory.

Make sure you have the project properly set up

Open index.html in your favorite text editor -- it should look like a regular HTML page

Open index.html in your favorite web browser -- it should look the same as the main website at schoolname-#.github.io

Make a test change in index.html, save, and reload in the browser. Make sure what you see in the the browser reflects that change.

Undo that change, with your editor, save, and then reload in the browser. Make sure what you see in the browser reflects that change.

Find a task

Now, find a bug on the project's issue tracker that you will work on, and claim it by leaving a comment on the issue saying so.

(Before you do that, make sure to refresh the page and check that no one else has claimed it while you were reading and deciding.)

Resolve the task

How you do this depends on the issue you've chosen. If you run into a problem you can't seem to solve, try asking the student next to you or one of the mentors.

Make sure to open up index.html and check that your solution works.

Commit and push

Once you're finished making changes, you can use the following command to get a list of files you've changed:

```
git status
```

You can commit your changes by typing "git add" followed by the files you've changed, for instance:

```
git add index.html
```

Once you've added the changes, you can "commit" them with a message specifying what you've changed.

```
git commit -m "Explanation of my changes"
```

Now, publish those changes on Github by typing:

```
git push
```

You can now visit Github and make sure your personal fork contains those changes.

Create pull request

Visit your personal fork and click the "Pull requests" button on the right. This will offer you the chance to "Create...". Explain what you did, and leave a remark that this relates to the issue number you saw.

Now, get feedback from the project's maintainer (the mentor leading your group) and eagerly await your pull request getting merged!

Once merged, visit your changes on the web

When your changes are merged into the main project repository, our specially configured repository will update the group website with the merged files.

This is a special trick that we do during the Website editing with git exercise, using Github Pages. It demonstrates that when the merge happens, it can programmatically cause a different event; these are often called *hooks*.

Want to learn more?

Visit bit.ly/Practicing-Git and scroll down to the bottom to learn a few additional concepts such as adding multiple remotes and resolving merge conflicts.