

# Week 1 - Introductions, Course Outline & Web Concepts

Karl Benedict

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## Introduction

This week we will review the content and structure for the course and spend some time getting to know each other. Following this we will spend some time setting up some of the tools that you will be using for the course in developing your portfolio of materials.

## Class Prep

- [Wikipedia article - History of the World Wide web](#)
- [Lynda.com tutorials](#)
  - *Web Design Fundamentals*
    - \* Introduction
    - \* 1. Exploring Web Design
  - *Version Control for Everyone*
    - \* Introduction
    - \* 1. Introducing Version Control
    - \* 2. Version Control Basics
    - \* 3. Setting Up Your First Project

## Reference Materials

[Class Syllabus](#)

## Weekly Milestone - Creating Your GitHub Repository and First Web Page

Developing content to go onto the web has evolved from a solitary effort to one where teams work together in developing components of larger web sites. These teams need to have a variety of tools to enable their work. Some of the most important tools enable code sharing with the team, and in projects based on the [Open Source](#) software model the rest of the world. The [GitHub](#) web platform uses the [Git](#) distributed [version control](#) system to enable sharing of code and hosting static web pages based on that shared code.

You will be using a public [GitHub](#) repository and associated [Project Pages](#) collection to build your class portfolio during the course. You will learn how version control operates, and how to provide comments and keep notes on your work and comment on the work of others (this will be part of our peer review process).

While the work we do this and next week will be directly through the editor integrated into the GitHub system, you will need to install a desktop application (such as the [SourceTree](#) application [recommended for the class], the [GitHub Desktop application](#), or, for the more adventurous, one of the [Git command line tools](#)) that allows you to develop your web pages on your local computer and then update the files on the GitHub system when you want to share a new version.

For this milestone we will walk through the process of creating your repository in GitHub, creating your first web page, previewing that page on your local computer, changing the page, and updating the page on GitHub. For this milestone we will do this as a manual process which we will streamline in the coming weeks.

## Create Your GitHub Account and Portfolio Repository

For your work in this class you will build your portfolio within your account - which you will need to create if you don't already have one.

The first step in the process of creating your portfolio is to create a new (or log into an existing) GitHub account, and create *repository* in GitHub within which you will put your portfolio materials for sharing within the class. Please follow the following steps to create your repository:

1. Go to the [GitHub homepage](#) and follow the onscreen instructions for creating a new account. If you already have an account you can skip this step. Once you have created your account you can login and continue the process of creating your class repository.



Figure 1: GitHub home page

Unless you have specific reasons to do otherwise select the default options for step 2 of the account creation process.

(optional) Complete the online survey from GitHub associated with your account.

2. Check your email inbox and verify your newly created GitHub account.

The screenshot shows the GitHub 'Welcome to GitHub' page. At the top, there's a navigation bar with the GitHub logo, a search bar, and links for 'Pull requests', 'Issues', and 'Gist'. Below the navigation bar, the main heading is 'Welcome to GitHub' followed by the text 'You've taken your first step into a larger world, @kkb-demo.'.

Below the heading, there are three steps in a progress bar:

- Step 1:** Completed (Set up a personal account)
- Step 2:** Choose your plan (Current step)
- Step 3:** Tailor your experience

The 'Choose your plan' section has the heading 'Choose your personal plan'. It contains two radio button options:

- ☒ Unlimited public repositories for free.
- ☐ Unlimited private repositories for \$7/month.

Below these options, there is a note: 'Don't worry, you can cancel or upgrade at any time.'.

There is also a checkbox option: ☐ **Help me set up an organization next**. Below this, it says: 'Organizations are separate from personal accounts and are best suited for businesses who need to manage permissions for many employees. [Learn more about organizations.](#)'.

At the bottom of the section is a green 'Continue' button.

On the right side, there is a box titled 'Both plans include:' with a list of features:

- ✓ Collaborative code review
- ✓ Issue tracking
- ✓ Open source community
- ✓ Unlimited public repositories
- ✓ Join any organization

Figure 2: GitHub setup step 2

The screenshot shows the GitHub 'Welcome to GitHub' page, Step 3: Tailor your experience. The navigation bar is the same as in Figure 2. The main heading is 'Welcome to GitHub' followed by the text 'You'll find endless opportunities to learn, code, and create, @kkb-demo.'.

Below the heading, there are three steps in a progress bar:

- Step 1:** Completed (Set up a personal account)
- Step 2:** Choose your plan
- Step 3:** Tailor your experience (Current step)

The 'Tailor your experience' section has the heading 'How would you describe your level of programming experience?'. It contains three radio button options:

- ☐ Totally new to programming
- ☐ Somewhat experienced
- ☐ Very experienced

Below this, there is a heading 'What do you plan to use GitHub for? (check all that apply)'. It contains six checkbox options:

- ☐ Project Management
- ☐ Research
- ☐ Design
- ☐ School projects
- ☐ Development
- ☐ Other (please specify)

Below this, there is a heading 'Which is closest to how you would describe yourself?'. It contains three radio button options:

- ☐ I'm a hobbyist
- ☐ I'm a student
- ☐ I'm a professional

Below this, there is a heading 'What are you interested in?'. It contains a text input field. Below the input field, there is a small text: 'e.g. tutorials, android, ruby, web-development, machine-learning, open-source'.

At the bottom of the section are two buttons: a green 'Submit' button and a blue 'skip this step' link.

Figure 3: GitHub online survey

3. Select “Start a project” from the web page that is presented when you confirm your email address (or complete the account creation steps above).

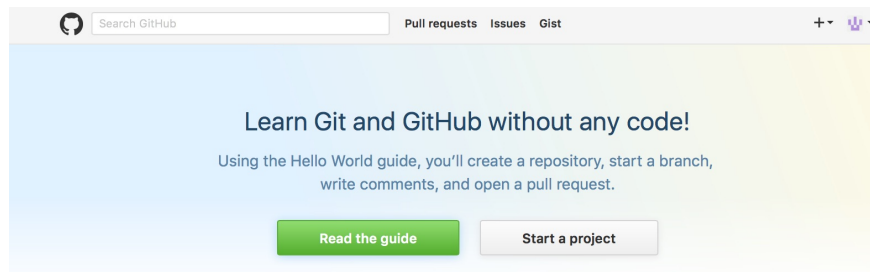


Figure 4: Start project page

4. Create your portfolio repository by choosing the following options in the page that is presented when you choose “Start a project” in step (3) above.

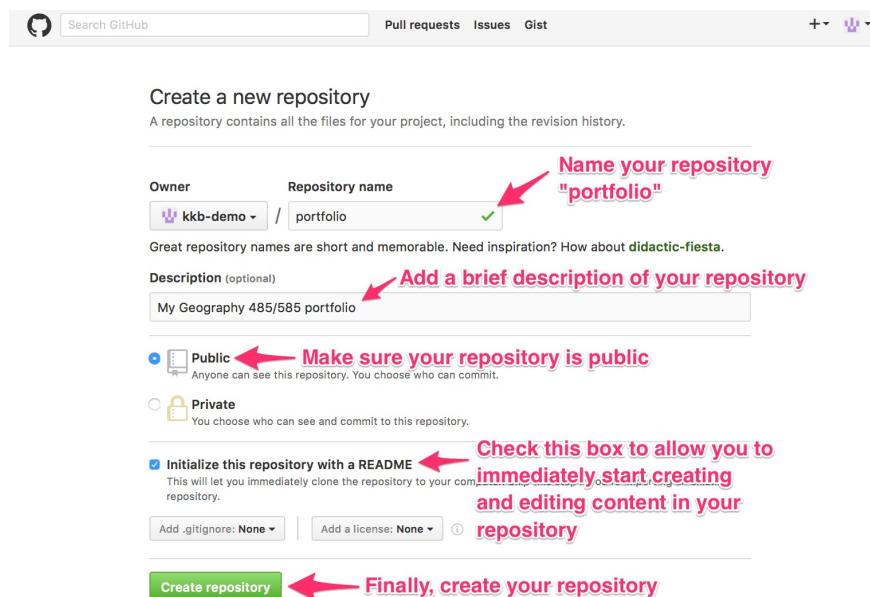


Figure 5: Create repository page

After your successfully create your **portfolio** repository you should see the home page for your new repo: **Make note of the web address of this page (even email it to yourself) to make it easy to get back here later** - <https://github.com/<your username>/portfolio>

## Create Your First Web Page

To create your first web page within your portfolio repository you need to first enter your repository, add a new file, modify its contents, and commit your modifications back to the repository to save your changes.

1. Go to your **portfolio** home page - <https://github.com/<your username>/portfolio> - either by going directly to the link (above) for your repository or by selecting the repository from your account home page - <https://github.com/<your username>>.

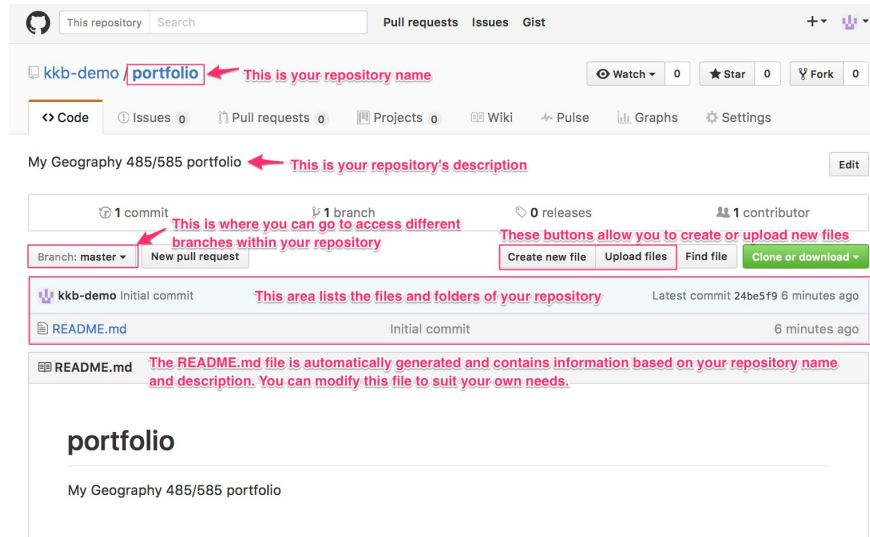


Figure 6: Repository home page

2. On the page that comes up listing the files in your repository, click the “Create new file” button above the list of files.

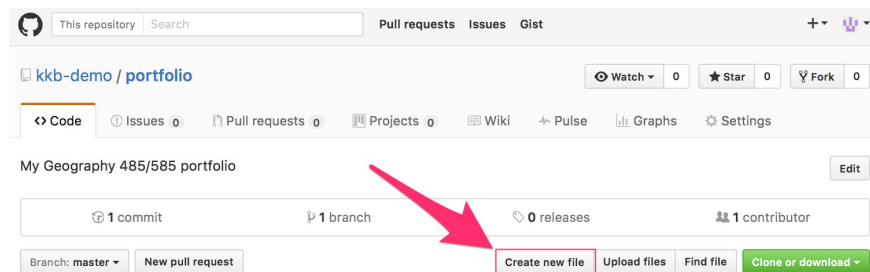


Figure 7: Create a new file

Which will take you to the editor for your new file.

3. Enter the name of the file ((1) on the figure below) that you are creating as “hello-world.html”
4. Enter the following text into the text entry area (2) under the filename field.

```

1 <html>
2   <head>
3   </head>
4   <body>
5     Hello World !!!
6   </body>
7 </html>

```

5. Add a brief comment (such as “Created hello-world.html from provided text”) in the first field under the “Commit new file” title (3). You can optionally add a more detailed description in the next field (4) if you like.
6. Keep the default option to “Commit directly to the master branch”

7. Click the “Commit New File” button (5) to commit your change and save the file

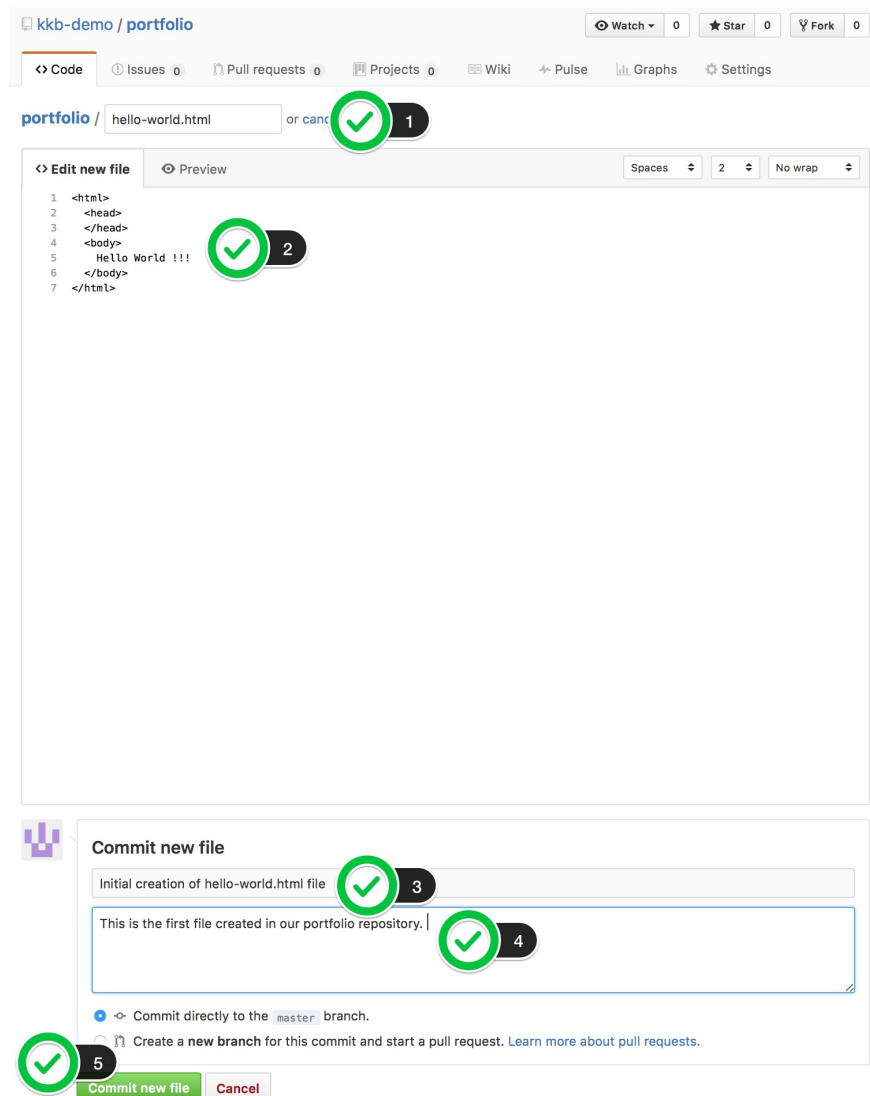


Figure 8: GitHub file creation/editor page

### Step 3 - Preview Your Web Page in a Browser

Since your repository in GitHub is public you can use GitHub to host your portfolio and its content on the web. GitHub's hosting capabilities are limited to static content (i.e. files directly accessible over the web), but this will meet our needs for the class very well. To enable GitHub's web hosting capabilities for your repository you need to change the **GitHub Pages** option in the settings for your repository. First, click the **Settings** button near the top of your repository home page:

Then modify the **GitHub Pages** setting to use the **Master** branch as the source for your GitHub pages web site. Click the **Save** button next to your update.

After saving your changed **GitHub Pages** setting you can view your web page using the following pattern:

`https://<your username>.github.io/<repository name>/<page name>`

which translates into the following (assuming that you followed the instructions above for naming your repository and file:

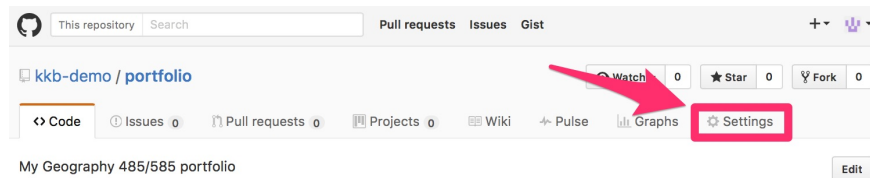


Figure 9: Settings button in GitHub

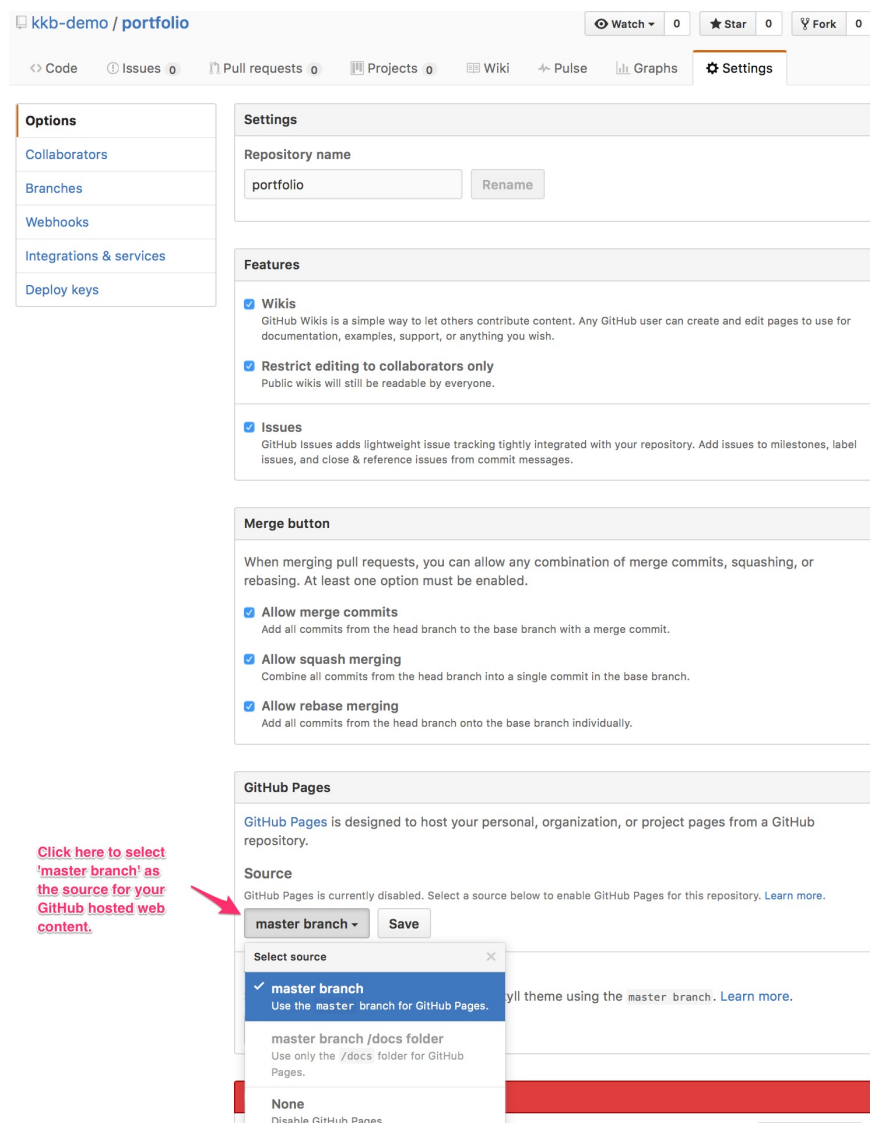


Figure 10: Update settings for GitHub web publishing

`https://<your username>.github.io/portfolio/htllo-world.html`

Using this approach you can modify and preview your site in real time as you commit your changes within GitHub. You can also preview your portfolio based on files on your local computer by installing a GitHub client onto your computer and **cloning** your GitHub repository to your local computer. This is done using a desktop application such as *Sourcetree*, the *GitHub Desktop Client*, or another *Git client* appropriate to your operating system. Once you've cloned your repository you can work with the files (including previewing them) on your local computer and when ready **push** those files back into GitHub for online access, viewing and sharing. **While you can work on your files locally - peer review, troubleshooting, and grading will be based on the content in your public GitHub repository.**

Confirm that the display resembles something like the following:

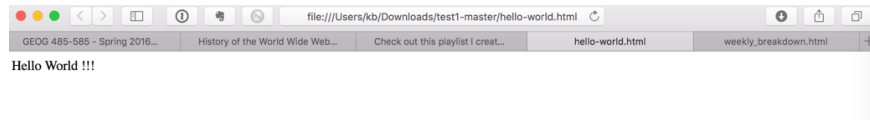


Figure 11: Sample `hello-world.html` file when viewed in a web browser

6. If the page does not appear as you like, edit it on GitHub, commit your change and preview it again. Repeat until you get what you expect.

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