

How to Publish a Website For Free



(Source: Combell)

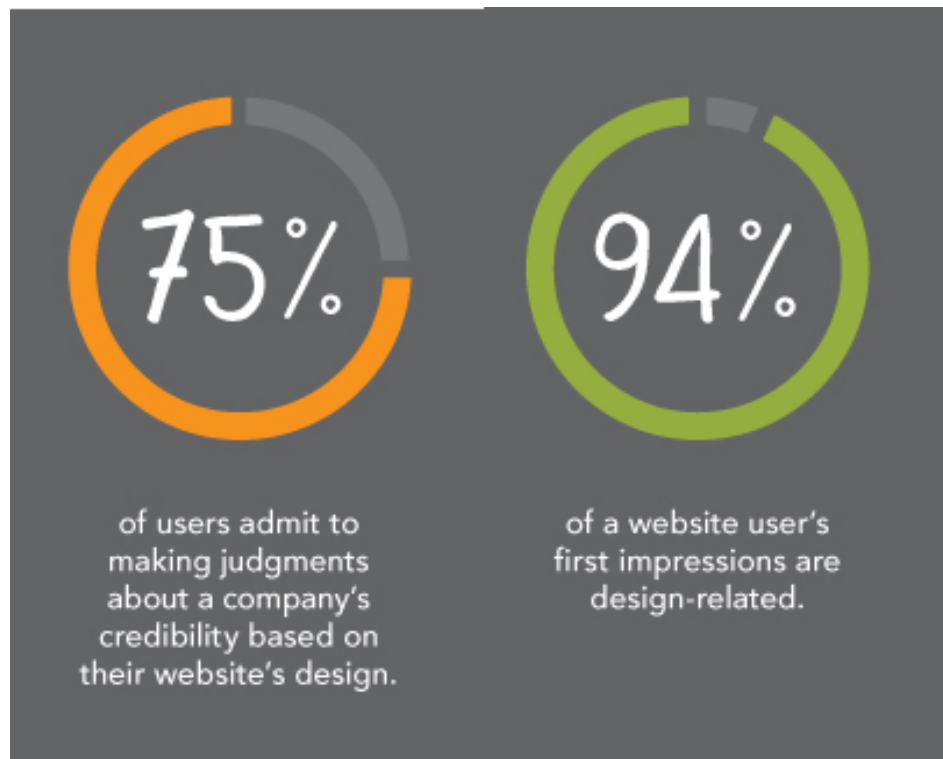
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Introduction

Everyone has something they want to say or to show the world. One easy, intuitive way to do so is through blogging with services like Google's Blogger or WIX. However, for some of us, we want to show the world something more unique, dynamic, or interactive. Indeed, a more unique website offers many advantages (see fig. 1) This instruction guide targets designers and programmers who are interested in publishing a unique webpage of their own design.



*Figure 1 Research from the marketing firm Kinesis shows how important it is for webpage designs to leave a strong first impression. Having a unique webpage can help set the mood for your message to the world.
(Source: Kinesis)*

This document assumes that the audience has some experience in webpage design. If not, this instruction guide provides widely available webpage design tutorial in its first

section. instead, the bulk of this guide will focus on the process of publishing created webpages to internet users around the globe.

Indeed, many webpages are never published on the internet because many webpage design classes never teach students this simple, yet crucial, final step. The purpose of this instruction guide is to teach this crucial last step. This allows designers and programmers to showcase their creations on the Worldwide Web.

To increase accessibility for my audience, this document is also available at:

- <https://engl202csample.000webhostapp.com/>
- <https://pennswood.github.io/Engl202CSample/>

Necessary materials

Physical materials:

- A computer
- Internet access

Software requirements:

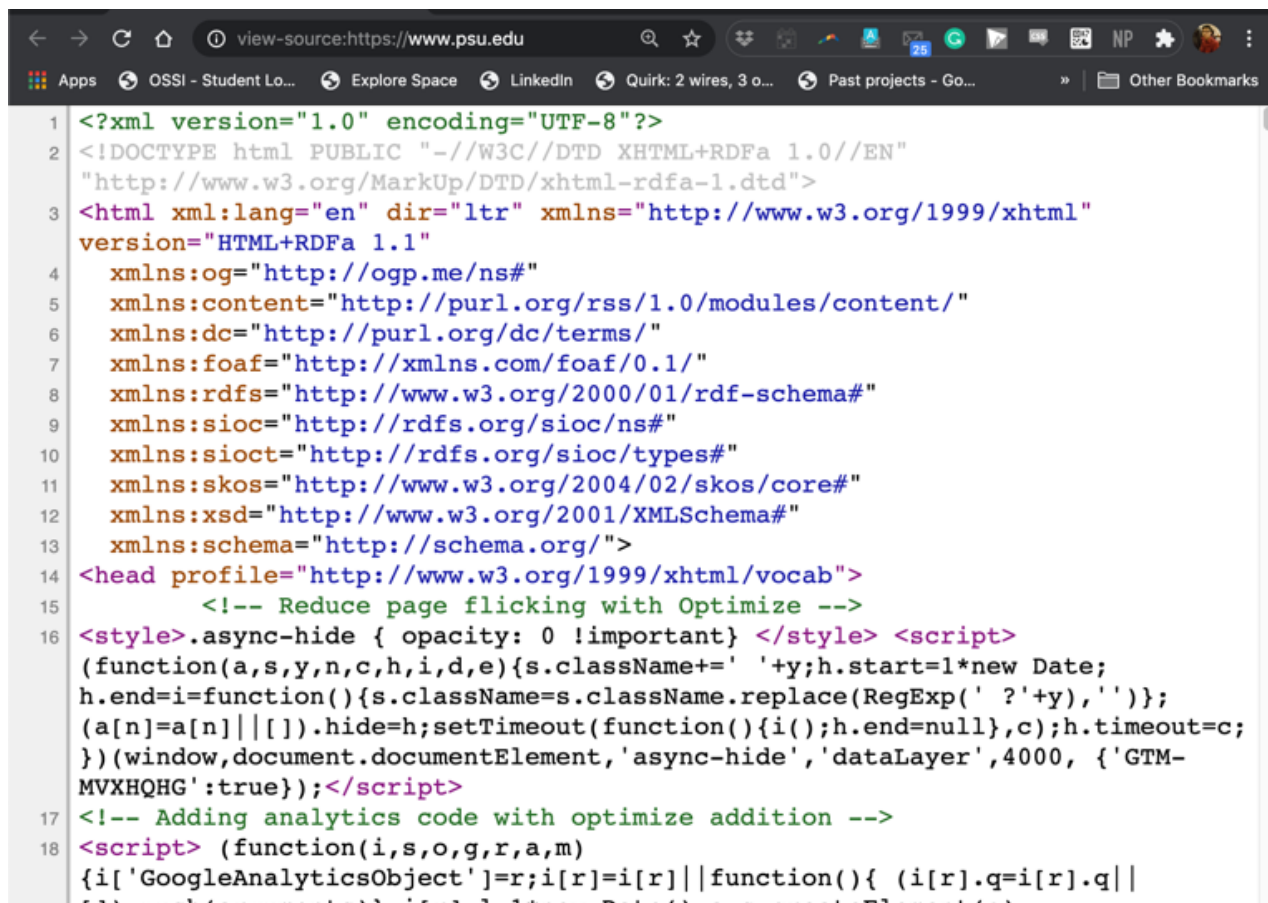
- An internet browser (Google Chrome, Internet Explorer, Firefox)

Note: You may wish to have all three browsers in order to make sure your website is displaying correctly across all of the platforms.

Creating the Webpage

What is a webpage?

Beneath the beautiful webpages that you see every day on your internet browser are lines and lines of characters that form a language. This language is understood by your browser, which turns the instructions into the beautiful designs you see. In fact, if you go to any webpage in your internet browser and press CTRL+U simultaneously for most computers (Command+Option+U on a Mac), you will most likely see this characters that make up each and every webpage you use (see fig. 2).



```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML+RdFa 1.0//EN"
  "http://www.w3.org/MarkUp/DTD/xhtml-rdfa-1.dtd">
3 <html xml:lang="en" dir="ltr" xmlns="http://www.w3.org/1999/xhtml"
  version="HTML+RdFa 1.1"
4   xmlns:og="http://ogp.me/ns#"
5   xmlns:content="http://purl.org/rss/1.0/modules/content/"
6   xmlns:dc="http://purl.org/dc/terms/"
7   xmlns:foaf="http://xmlns.com/foaf/0.1/"
8   xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#"
9   xmlns:sioc="http://rdfs.org/sioc/ns#"
10  xmlns:sioc="http://rdfs.org/sioc/types#"
11  xmlns:skos="http://www.w3.org/2004/02/skos/core#"
12  xmlns:xsd="http://www.w3.org/2001/XMLSchema#"
13  xmlns:schema="http://schema.org/">
14 <head profile="http://www.w3.org/1999/xhtml/vocab">
15   <!-- Reduce page flicking with Optimize -->
16 <style>.async-hide { opacity: 0 !important} </style> <script>
  (function(a,s,y,n,c,h,i,d,e){s.className+=' '+y;h.start=1*new Date;
  h.end=i=function(){s.className=s.className.replace(RegExp(' ?'+y),'');
  (a[n]=a[n]||[]).hide=h;setTimeout(function(){i();h.end=null},c);h.timeout=c;
  })(window,document.documentElement,'async-hide','dataLayer',4000, {'GTM-
  MVXHQHG':true});</script>
17 <!-- Adding analytics code with optimize addition -->
18 <script> (function(i,s,o,g,r,a,m)
  {i['GoogleAnalyticsObject']=r;i[r]=i[r]||function(){ (i[r].q=i[r].q||
  [])push(arguments)};i[r].l=1*new Date();a=s.createElement(a)
```

Figure 2 The code that make up the Penn State psu.edu website accessed by pressing CTRL+U on a Google Chrome browser.

Warning: Unless otherwise specified, all websites are copyrighted. If you copy the code of a design too closely and publish it on your website, you may violate copyright laws or even be accused of impersonating the website to steal user's information.

The language you see (likely similar to fig. 2) is actually composed of three coding languages:

- **HTML** for basic design and creation of various buttons, textboxes, images, and other components of the website
- **CSS** for color schemes, component placements and aligning, backgrounds, borders, and other artistic designs
- **JavaScript** for dynamical graphics, logical calculations, storing information



Additionally, there are other languages, such as PHP, that can be used to create even more sophisticated webpages with user interactions like logins, leaving comments, etc. However, these languages are hidden away from the webpage user (typically called a *client*).

Resources to help you create a webpage

The following websites will help you explore different ways to create an enhance your webpage:

- w3schools.com offers amazing, interactive lessons on various HTML, CSS, JavaScript, and PHP for free.
- developers.google.com offers various applications and *plug-ins* that Google has developed for free. These include Google Maps, speech recognition, automatic translation to various languages, webpage design templates, etc.
- colorlib.com offers beautiful webpage designs (**Warning: some designs may require you to choose between citing the creator or paying a license fee; failure to comply may lead to copyright infringement lawsuits under the Copyright Act of 1976.**)

Hosting the Webpage

With all of your code and files ready to be published to the internet and seen globally by all web users, we will now explore two specific ways to publish your webpage on the internet for free. The first method utilizes a free web hosting server called 000webhost, and the second method utilizes GitHub as a web hosting server.

Specific features of each hosting service are listed below:

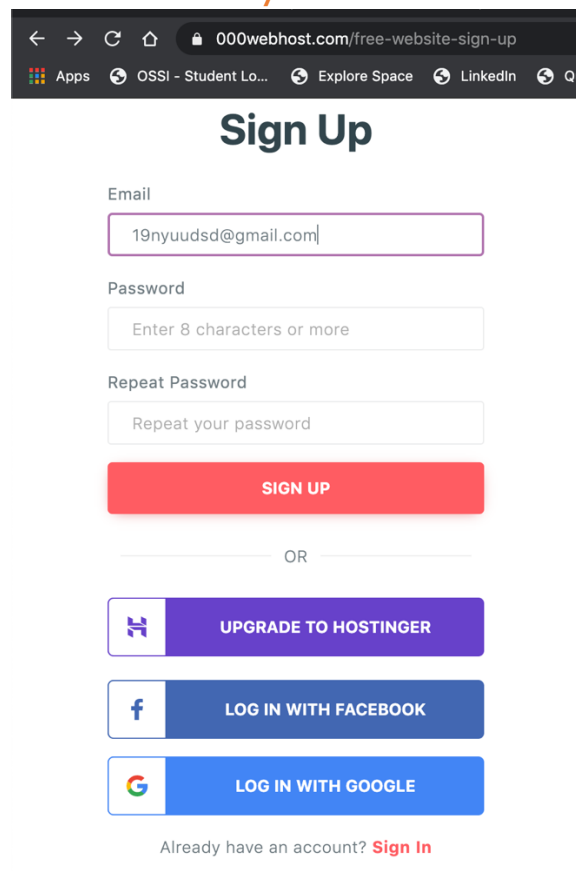
000webhost	GitHub
<ul style="list-style-type: none">• Less well-known• Occasionally server downtime (webpage not accessible to clients)• Limit on maximum file sizes and number of user visits per hour• Allows <i>server-side scripting</i> and <i>MySQL database</i>• <i>URL</i> must end with ".000webhostapp.com"	<ul style="list-style-type: none">• Very trustworthy• Rare server downtime (webpage will always be accessible to clients)• No limit on maximum file sizes or number of user visits per hour• Only <i>client-side scripting</i> allowed• URL must end with ".github.io"

000webhost

Basic setup:

The steps for publishing a website is quite simple with 000webhost:

1. To create a new website, you first need a Google or Outlook email address. Create a Google or Microsoft account if you do not yet have one.
2. Navigate to 000webhost.com and create an account using the email address.
 - a. Type your email into the 'email' box and a password into the 'Password' and 'Confirm password' boxes.
(Warning: do not use the "Log in with Google" button at the bottom due to existing bugs which could cause your account to be locked out)



The screenshot shows the 000webhost sign-up page in a web browser. The browser's address bar displays '000webhost.com/free-website-sign-up'. The page has a white background with a dark header. The main heading is 'Sign Up' in a large, bold, dark font. Below the heading, there are three input fields: 'Email' with the text '19nyuudsd@gmail.com', 'Password' with the placeholder 'Enter 8 characters or more', and 'Repeat Password' with the placeholder 'Repeat your password'. A red 'SIGN UP' button is positioned below these fields. Underneath the button is a horizontal line with the text 'OR' in the center. Below this line are three buttons: a purple 'UPGRADE TO HOSTINGER' button, a blue 'LOG IN WITH FACEBOOK' button, and a blue 'LOG IN WITH GOOGLE' button. At the bottom of the page, there is a link that says 'Already have an account? Sign In'.

- b. You should receive an email asking for a confirmation. Navigate to your email box and click the “Click to Verify Email” button.



Welcome!

Just one more step to begin your journey.

[Click To Verify Email](#)

If you didn't create [000webhost](#) account, just delete this email.

The link will then navigate you to a screen for first time users.

Hey there, 19nyuudsd!

Welcome to 000Webhost hosting sandbox! Let's get you started. It will only take a few minutes.

[LET'S CREATE SOME MAGIC](#)

[It's not my first rodeo, take me to the Panel.](#)

To avoid unnecessary questions, click “It’s not my first rodeo, take me to the Panel.”

3. The site will then ask you to name your project; Think of a descriptive name for your project and a password you would remember
 - a. The name of the project will become part of the domain name/URL. For example, you can view my

example project below at
engl202csample.000webhostapp.com.

- b. The password will be required for files upload through a *File Transfer Protocol* software.

Name Your Project

Engl202CSample


.....


☐ Show password [GENERATE PASSWORD](#)


SUBMIT

4. It may take a minute to create your site, after which 000webhost will ask you whether to use its own website builder, WordPress, or your own files. Click "Upload your site" since you have created your dynamical website.

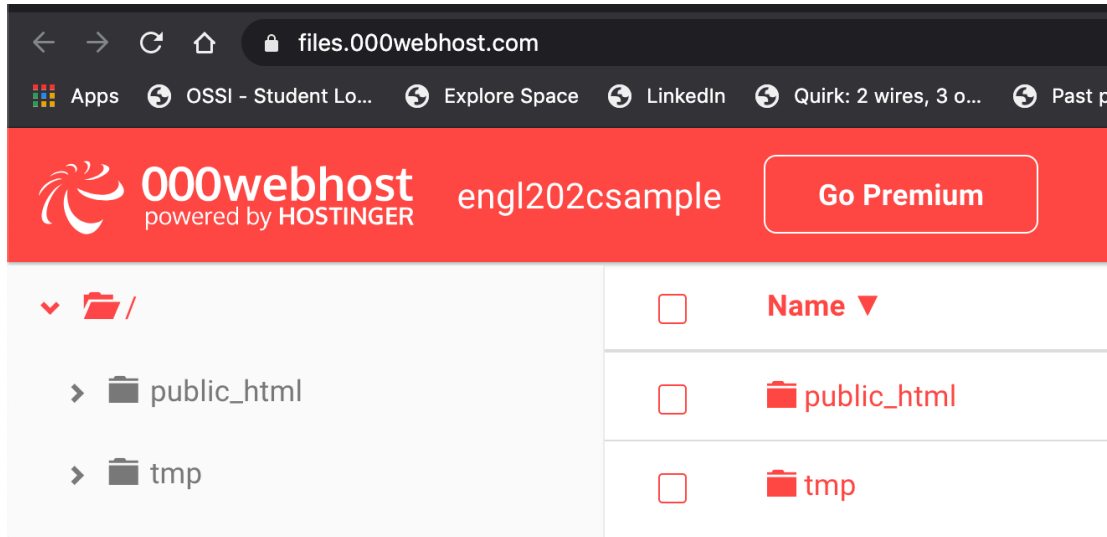
Choose your weapon of mass creation


Use Our
Website Builder
[Select](#)


Install
WordPress
[Select](#)


Upload your
site
[Select](#)

5. Go to files.000webhost.com in order to edit your files: this is a file transfer page specific for 000webhost websites.

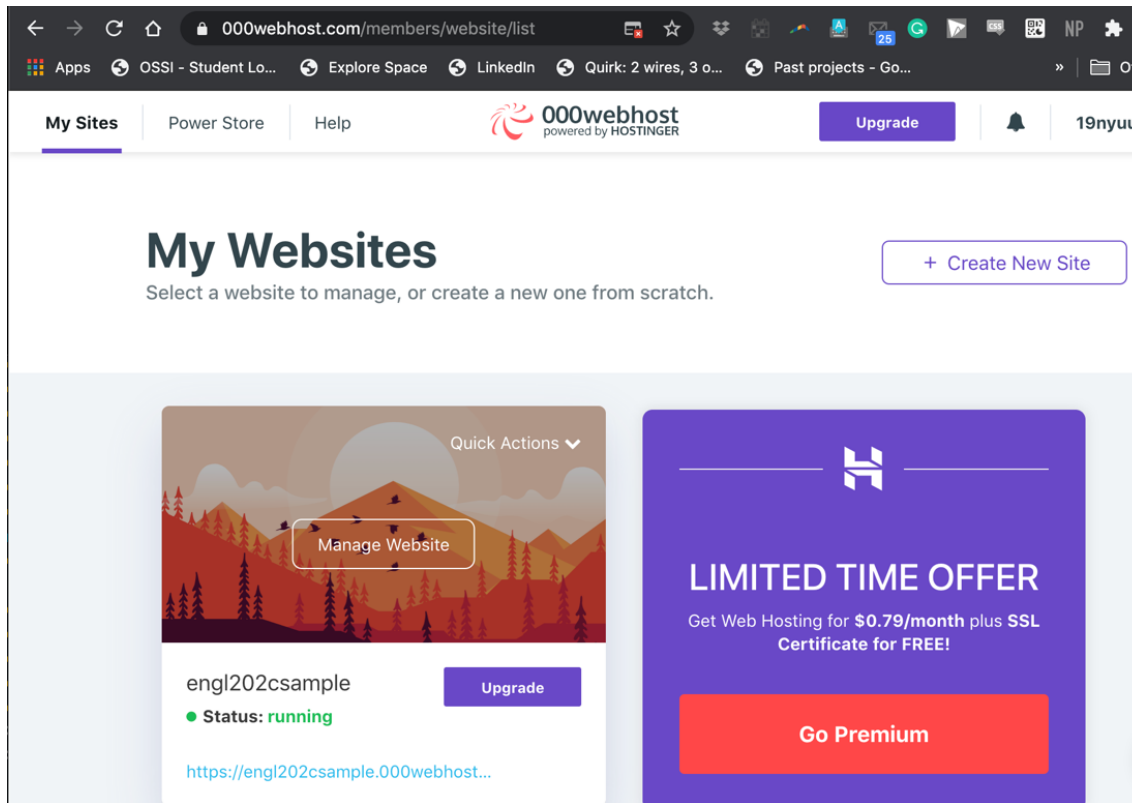


6. Go into the public_html folder and upload your files (**Note:** only files which are inside the public_html folder will be shown)
 - a. To upload files, simply drag-and-drop the files from your computer directly onto the screen.
7. Visit your website under [\[your website name\].000webhostapp.com](https://[your website name].000webhostapp.com) to ensure your updates look

For more advanced management:

While files.000webhost.com offers basic file upload for your website, it does not offer any website management tools. To do that, you must visit 000webhost.com:


1. Navigate to 000webhost.com and login to your account:



2. Click on "Manage Website" for the website you would like to manage (there should only be 1 active website if you are on a free account).
3. On the left-hand side of, you will see a bar of options. Click on "Website Settings" followed by "General":

engl202csample

Current site | Free


 **Build a Website**

 **Tools** >

 **Website Settings** >

 **Community Help** >

 **Earn Money**

 **Learn to Code**

 **Customer Support**

 **Power Store**

engl202csample

Current site | Free

< Home

Website Settings

General

Statistics

Security

Cron Jobs

Redirects

Logs

Backup

i)

ii)

4. You will be presented with a page of information:

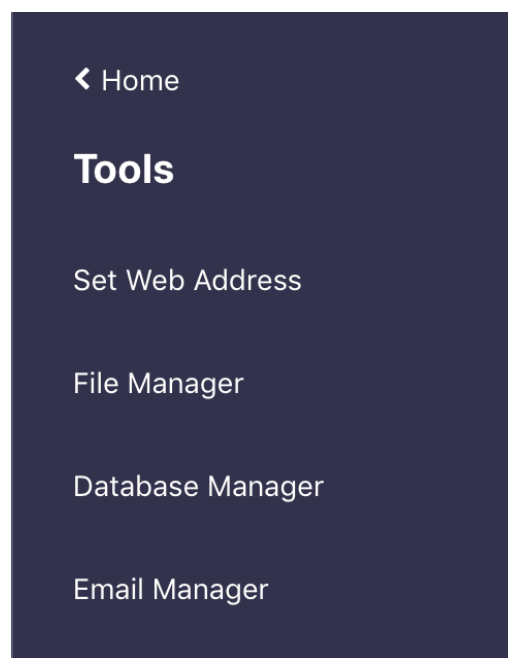
FTP Detailed Information Here you can set preferences to manage access to your website files. By disabling this feature you will not be able to access the Web File Manager.	FTP transfer <input checked="" type="checkbox"/> OFF <input type="checkbox"/> ON Host Name: <input type="text" value="files.000webhost.com"/> Port: <input type="text" value="21"/> Username: <input type="text" value="engl202csample"/> Password: <input type="text" value="same as your website password"/>
Website Name You can change the name of your website here.	<input type="text" value="engl202csample.000webhostapp.com"/>
Password Change your website password here. This is also FTP password.	<input type="button" value="Change Password"/>
PHP Version We support all major PHP versions, so make sure your software is compatible with the PHP version of the website.	Current version: PHP 7.2 <input type="button" value="Change PHP Version"/>

- "FTP Detailed information" allows you to use other software, such as FileZilla, for more direct access to files on your computer. As compared to dragging files into files.000webhost.com, this software makes it easier to update your website if you make large amounts of edits on many files.
- "Website Name" provides the URL address to type into a internet browser to visit your site.
- "Password" allows you to change the password for your files transfer protocol.
- "PHP Version" indicates how the 000webhost computers will interpret your server-side scripts (**Note:** any files that end with .php is a server-side script. HTML, CSS, and JavaScript are client-side scripts, meaning they are sent to and interpreted directly by the computer of the person viewing your website. Meanwhile, the PHP server-side scripts are

interpreted and run in the 000webhost computer that stores your files. How the 000webhost computer interprets your files depends on this version).

For even more advanced tools:

Under “Tools” in your home bar, you will see additional tools that can help you manage your website:



- “Set Web Address” allows you to purchase (occasionally for free) additional domain names that points to your website (similar to how googl.com automatically directs you back to google.com).
- “File Manager” simply brings you to files.000webhost.com, where you can upload files to your website for your viewers to see.
- “Database Manager” are for websites with lots of users with data that must be saved (register for events, create accounts, logins, leave comments, play multiplayer games, chatrooms, etc)

(**Warning:** The 000webhost database management utilizes MySQL data structure, which is prone to leak sensitive information – such as user’s passwords, emails, or other information in your database – if not managed carefully.)

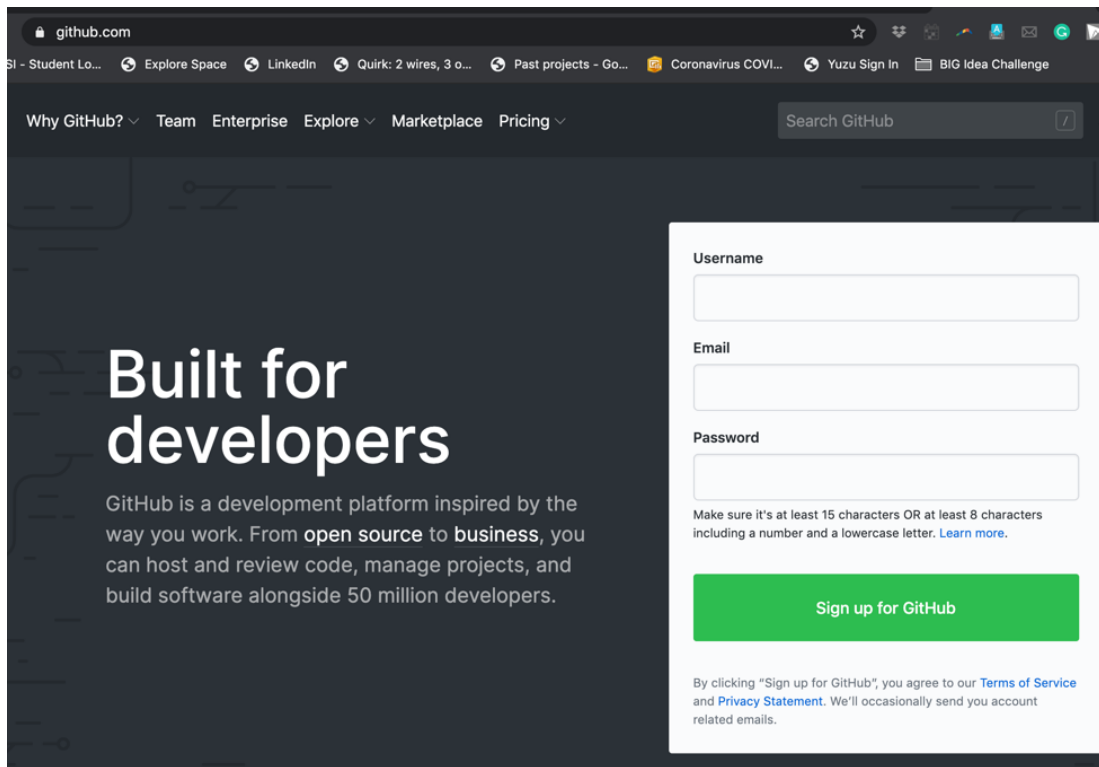
- “Email manager” allows your website to also act as a mailbox to receive feedback from your users.

Once you feel comfortable with the basics of managing and publishing content onto your website, feel free to explore these options to further enhance the features on your webpage.

GitHub

Traditionally, GitHub is used for publishing and collaborating on programming projects. However, to facilitate this, each 'user' on GitHub is allowed to create one website. Using these steps, we can use this feature to our advantage and use GitHub as a web hosting tool

1. Navigate to github.com and create an account (**Note:** unlike 000webhostapp, the username you pick for this account will become part of the URL: [username].github.io)

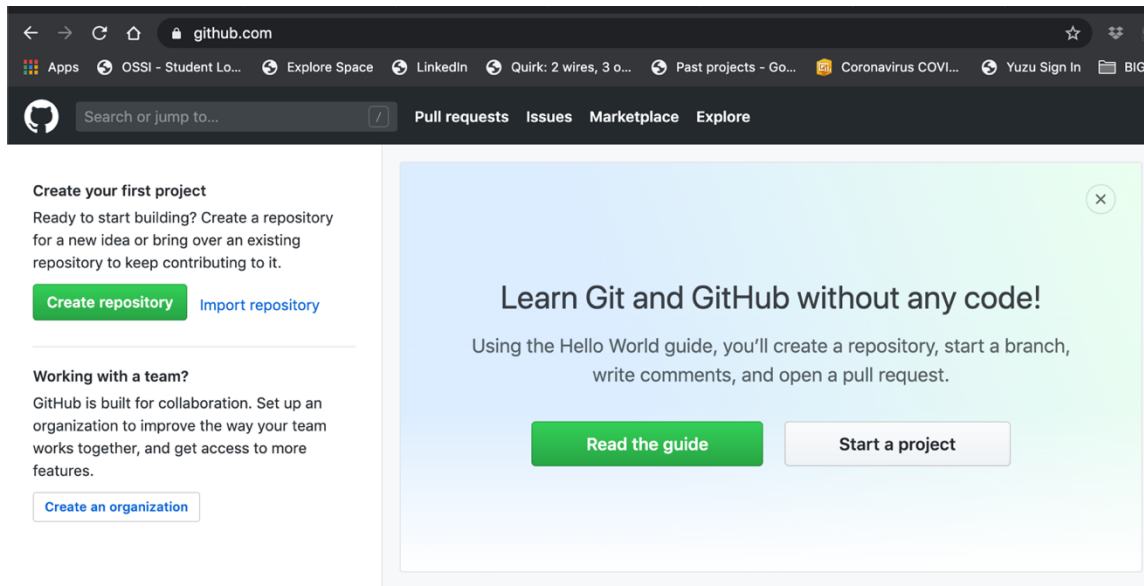
A screenshot of the GitHub website's sign-up page. The browser address bar shows 'github.com'. The page has a dark background with the text 'Built for developers' in large white font. Below this, it says 'GitHub is a development platform inspired by the way you work. From open source to business, you can host and review code, manage projects, and build software alongside 50 million developers.' On the right side, there is a white sign-up form with fields for 'Username', 'Email', and 'Password'. The 'Password' field has a note: 'Make sure it's at least 15 characters OR at least 8 characters including a number and a lowercase letter. Learn more.' Below the form is a green button that says 'Sign up for GitHub'. At the bottom of the form, there is a small text: 'By clicking "Sign up for GitHub", you agree to our Terms of Service and Privacy Statement. We'll occasionally send you account related emails.'

2. Go to your email address and verify your email account by clicking "Verify email address"

Almost done, **@PennStateSSPL-BIGBBBFC!** To complete your GitHub sign up, we just need to verify your email address: normenpsu@gmail.com.

Verify email address

3. You may be prompted to answer some questions, which you can complete or skip.
4. Once you get to the main page, you should click "Create Repository" on the left.




5. You will then be prompted to create a repository.
 - a. For the repository name, type in the exact same name you have for your username, then ".github.io", similar to the example below (Warning: attempting to use any other name or other will result in the repository showing up only as a folder with the code files. In other words, the actual webpage will not automatically display.)

Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository](#).

Owner

 PennStateSSPL-BIGBBBFC ▾


Repository name *

PennStateSSPL-BIGBBBFC.github ✓


PennStateSSPL-BIGBBBFC.github.io is available. p?

Great repository names are short and mer

Description (optional)

☒  **Public**

Anyone on the the internet can see this repository. You choose who can commit.

☐  **Private**

You choose who can see and commit to this repository.


Skip this step if you're importing an existing repository.

☐ **Initialize this repository with a README**

This will let you immediately clone the repository to your computer.

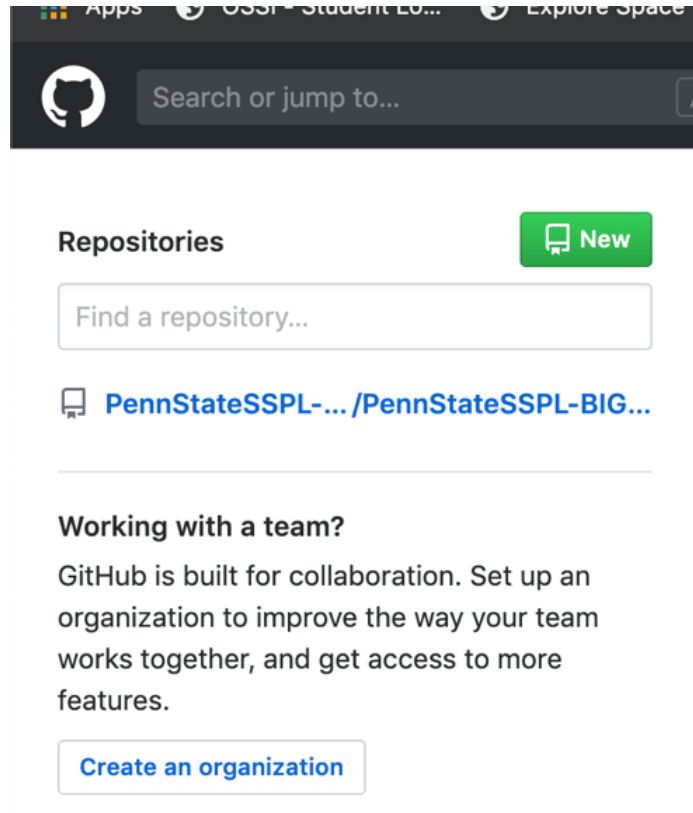
Add .gitignore: **None** ▾

Add a license: **None** ▾



Create repository

- b. Ensure that the repository is set to "Public" so that others can see the webpage.
 - c. Check the "Initiative this repository with a README" box.
 - d. Click "Create repository"
6. At this point, you will be directed to your [repository](#), in other words your project files. In this case, the project is the website.
 - a. In the event that you get lost, if you go back to github.com, the project will be located on the bar on the left. Click on the project to get back into the repository for the website.



7. Once in your repository, you can simply drag-and-drop your files directly onto the web browser to be uploaded.
8. Check your website at [username].github.io (**Note:** it can take up to 20 minutes for your website to update).

Troubleshooting Techniques

General troubleshooting

- Problem: the hotkeys you are telling me to press is not working.
 - Solution: For CTRL+U (or Command+Option+U for Mac), you can right click on the webpage and then click on "View page source" instead. For CTRL+SHIFT+I (or Command+Option+I on a Mac), you can right click on the webpage and click "Inspect" or "Inspect elements".

000webhost

- Problem: Website is not updating when I added new files.
 - Solution: If your file is not inside the "public_html" folder, it will not be available on your website. Move the file into the "public_html" folder and it will become available.
- Problem: Website is not updating when I made changes to existing files.
 - Solution 1: When looking for changes from the same browser, the browser might "remember" the old version and display that instead. To avoid this, perform the following steps:
 - Press CTRL+SHIFT+I (or Command+Option+I on a Mac) simultaneously.
 - Right click on the reload button.
 - Click "Empty cache and hard reload". The updated version of the webpage should show up.

- Solution 2: If the previous step did not work even after a few minutes, it is likely that the upload has failed. In this case, perform the following steps:
 - First, check to make sure the file you uploaded from your computer is saved locally so that the correct version of the file is actually being updated.
 - Second, check for any networking errors and try uploading the files again.
 - Finally, if the problem persists, it is likely that the server is having trouble overwriting old files. Delete outdated version of the code before reuploading new versions of the code with the same file name to avoid any overwriting issues.
- Problem: 000webhost is displaying “There is no such website” even though I double-checked that I entered the correct URL.



There is no such website

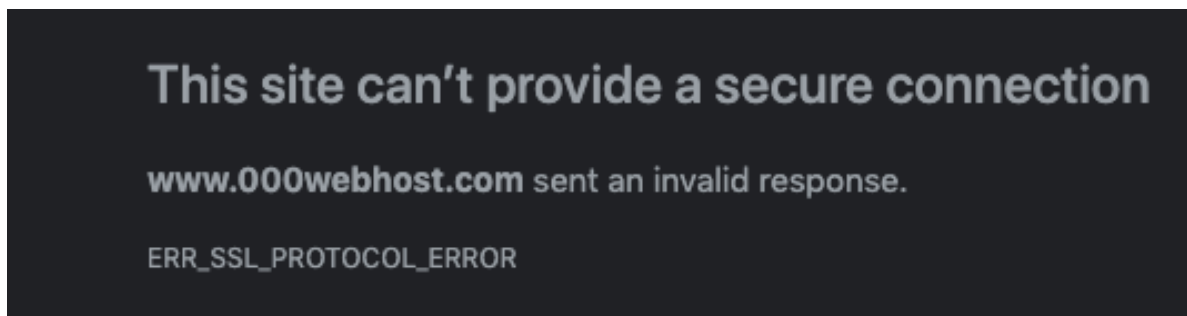
This domain is ready to be registered.

START YOUR WEBSITE

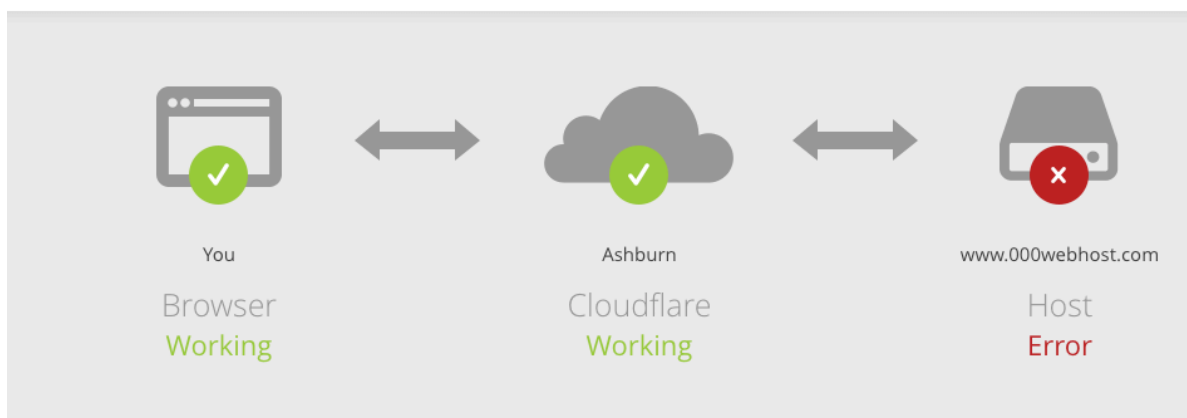
- Solution: It is likely that you have not visited the website in a long time. As such, 000webhost automatically archives your websites. You simply

need to log into your account again and your website will become active and published again.

- Problem: The website is taking a long time to load and then giving me errors (or different errors everytime I try logging in/uploading files/visiting my webpage).



Error 504 Ray ID: 5aa3d528ef620d8e • 2020-06-28 02:04:40 UTC
Gateway time-out



- Solution: Unfortunately, the 000webhost servers are occasionally down. This means that you are simply going to have to wait for the server to turn on again to upload files or make changes.
- Problem: My website is displaying "Horray your free website has started" when I checked my website.

engl202csample.000webhostapp.com

Hooray, your free website has been started!

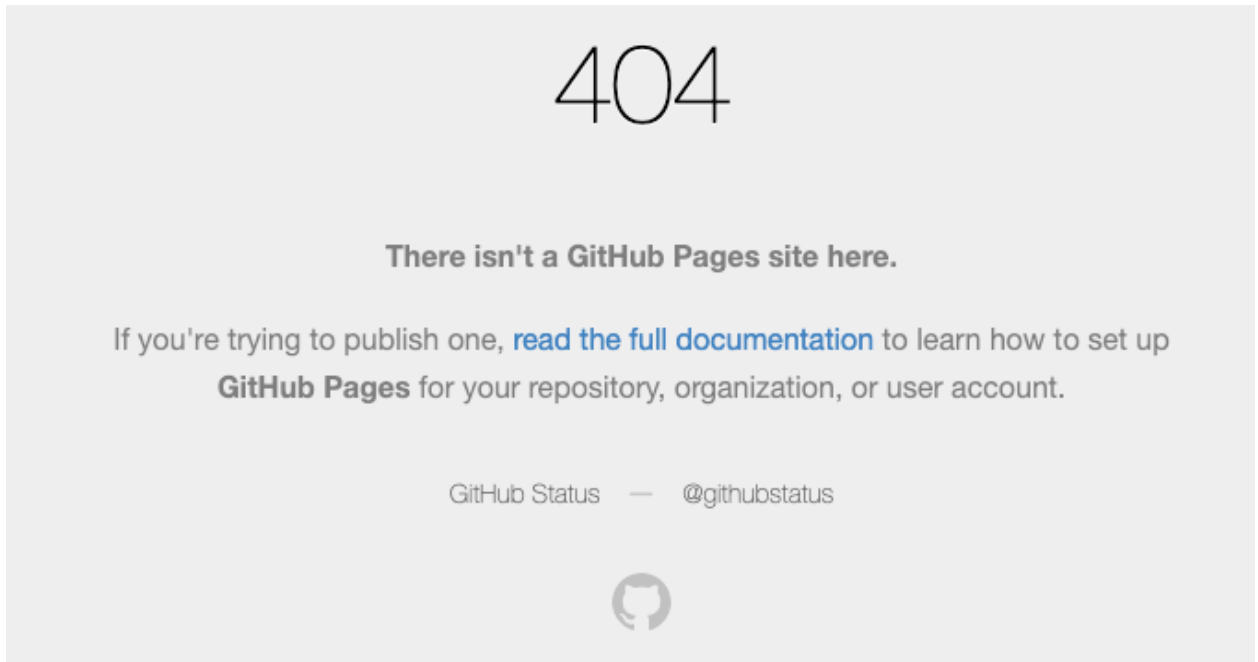
You see this page because your website doesn't have "index.php" or "index.html" file in `public_html` folder.

[CREATE INDEX FILE](#) >

- Solution: As the page suggests, you do not have an "index.html" or "index.php" file to indicate to the website which file is the main page of your website. Creating either of those files in the "public_html" folder will cause this page to be replaced with the contents in your "index.html" or "index.php" files.

GitHub

- Problem: My GitHub page is showing “This isn’t a GitHub Page site here”



- Solutions: Unfortunately, GitHub diverts almost all problems into this page. Therefore, more information is needed to figure out the exact issue.
 - Issue 1: The name of the repository is not “[your GitHub username].github.io”. To fix this, simply create a new repository with the correct name.
 - Issue 2: There are no files in your repository yet. To fix this, simply upload new files into your repository and the page will automatically be created.
 - Issue 3: GitHub pages is not enabled. To detect and fix this error, simply click on “Settings” and scroll down to “GitHub Pages” to enable. If this section is not available, revisit and double-check Issue 1 above.

GitHub Pages

GitHub Pages is designed to host your personal, organization, or project pages from a GitHub repository.

✓ Your site is published at <https://pennswood.github.io/>

Source

Your GitHub Pages site is currently being built from the master branch. [Learn more.](#)

User pages must be built from the master branch.

Theme Chooser

Select a theme to publish your site with a Jekyll theme. [Learn more.](#)

Choose a theme

Custom domain

Custom domains allow you to serve your site from a domain other than `pennswood.github.io`. [Learn more.](#)

Save

☒ Enforce HTTPS

— Required for your site because you are using the default domain (`pennswood.github.io`)

HTTPS provides a layer of encryption that prevents others from snooping on or tampering with traffic to your site.

When HTTPS is enforced, your site will only be served over HTTPS. [Learn more.](#)

- **Issue 4:** If Issue 3 is alleviated and the GitHub page is still displaying the same message after 20 minutes, the only possible culprit is the URL. Make sure that the URL you are visiting is the same as the hyperlink displayed in the green box of “GitHub Pages”. To double check, click on the hyperlink and the page should appear.

Glossary

client – someone who visits your website

plug-ins – a software that you can embed in your website to provide more functionality

server-side scripting – code that is written and executed in the servers or computers that physically stores your website for clients to access

client-side scripting – code that gets sent directly to your client's device and executed on your client's device

MySQL Database – a specific type of database management system in the server that stores your website to systematically store information provided by clients

URL – shorthand for Uniform Resource Locator, or the web address that you type into the internet browser to visit a particular website

File Transfer Protocol – a specific connection that allows for quick transmission of large files (such as webpage files) from your local computer to the server that stores your website for clients to access

repository – [specific to GitHub] a directory with a large number of files and resources for a particular project

Works cited

<https://www.combell.com/en/hosting/web-hosting>

<https://www.kinesisinc.com/the-truth-about-web-design/>

<http://www.web-development-institute.com/important-tips-for-smart-coding-html-css-javascript>