

https://www.google.com/search?q=cse151

- HTTP(S) URL:** Where a single web resource is located, potentially including extra "arguments" (the **query** after `?`)
- Domain:** The part of the url after the `https://` and before the first slash, usually ending with `.com`, `.edu`, `.net`, `.org`, `.gov`, and so on, or country codes, like `.uk`, `.jp`, etc. This usually corresponds to some organization or person, like `www.google.com` above
- Path (part):** The part of the URL after the domain and before any `?`. `/search` in the example above
- Query:** The part of the URL after the first `?` and before the **anchor**. `?q=cse151` in the example above.
- Anchor (or Fragment):** The part of the URL after the `#`. Not in the example above; usually page-specific data (like where to scroll)

URLs are a *lot* like paths! Github Pages gives you your own domain (it's a subdomain of `github.io`) at `<username>.github.io`  
What are the domains, paths, queries, and fragments of these URLs?

- `https://edstem.org/us/courses/41619/discussion/3541501`
- `https://ucsd-cse151-f23.github.io/week/week1/#week1-lab-report`
- `https://map.concept3d.com/?id=1005#!m/576556`

When you write a link in Markdown, just like in the filesystem, it can be **relative** or an **absolute** URL (kind of like an **absolute path**). Say you have a Github Pages site with the following structure (and say the username for the account is `cs151-student`):

```
cs151-lab-reports
|- index.md
|- lab-report-1.md
|- profile-pic.jpg
|- more-images/
    |- screenshot.png
```

What are **two ways** to write an image link in `lab-report-1.md` that refer to `profile-pic.jpg`? What about to `screenshot.png`?  
What are some tradeoffs between them?

- `![[profile]](profile-pic.jpg)`
- `![[profile]](https://cs151-student.github.io/cs151-lab-reports/more-images/screenshot.png)`
- `![[screenshot]](more-images/screenshot.png)`
- `![[screenshot]](https://cs151-student.github.io/cs151-lab-reports/more-images/screenshot.png)`

What are **two ways** to write a link from `index.md` that refers to the lab report page?

- `[Lab Report 1](lab-report-1.html) --> .html, not .md`
- `[Lab Report 1](/lab-report-1.html) --> start from the domain and replace whole path`

A developer is working on a Github Pages site. They are adding an image to their `readme.md` file. The image looks great in their Code preview, but on their Github Pages site it appears as a broken image link. Here's their code preview and their Github repository. You can see this repository at <https://github.com/esolares/esolares.github.io>

esolares.github.io

Public

main

Go to file

Add file

Code

Branches

Tags

esolares updated index.md and ... 3 minutes ago

images First commit 3 days ago

README.md updated index.md and READ... 3 minutes ago

index.md updated index.md and READ... 3 minutes ago

esolares.github.io Readme

Github repo for esolares.github.io using github pages

EXPLORER

OPEN EDITORS

ESOLARES.GITHUB.IO

index.md

index.md

index.md

1 # Welcome to my page!

2

3 I am interested in the intersection of Computer Science and Biology for the betterment of our species.

4 My research focuses on "Forging a Sustainable Future: Harnessing Bioinformatics and AI to Ensure Food Security and Species Rescue in the Face of a Changing Climate"

5

6 I am a UC President's Postdoctoral Fellow currently teaching at UC San Diego in the Computer Science and Engineering Department. I am doing research in evolution, bioinformatics and artificial intelligence, as well mentoring and teaching. I am interested in the food insecurity, modeling of genomic evolution, as well as the evolution and domestication of plants, and human disease. I have a B.S in Computer Science and a PhD in Population Genomics.

7

8 ![[A picture of me]](http://github.com/esolares/esolares.github.io/Solares-Edwin.png)

What's going on? What mistake or mistakes might they have made?

It could be the link provided in the "(" where it should be: `https://esolares.github.io/images/Solares-Edwin.png`

Assume the WhereAmI.java file we've been using as an example is stored in the root folder of a GitHub repository at <https://github.com/ucsd-cse151-f23/WhereAmI>

```
local $ ssh cs151fa23zz@ieng6.ucsd.edu
remote $ git clone https://github.com/ucsd-cse151-f23/WhereAmI
remote $
```

What commands should we use to compile and run the WhereAmI.java file at this point?

```
javac WhereAml.java, java WhereAml
```

import java.io.IOException;
import java.net.URI;

// This interface is defined in another file (we provide it in lab 2)
// interface URLHandler { String handleRequest(URI url); }

// URI is a built-in Java class with methods like getPath() and getQuery()
class Counter implements URLHandler {
 int num = 0;
 public String handleRequest(URI url) {
 System.out.println(url);
 if (url.getPath().equals("/")) { return String.format("Number: %d", num); }If URL ends with "/" then return num
 // FILL in the block below to match the behavior in the browser below!
 else if (url.getPath().equals("/count")) {
 num++;
 return String.format("Number: %d", num); else if URL ends with "/count" --> num += 1, return num
 }
 else {
 return "Don't know what to do with that path!";
 }
 }
}

class CounterMain {
 public static void main(String[] args) throws IOException {
 int port = Integer.parseInt(args[0]);
 // We wrote Server; it is a very short class (you can see it in Server.java in lab 2)
 Server.start(port, new Counter()); --> starts server
 }
}

Counter.java

```
local $ javac Server.java Counter.java
local $ java CounterMain
Exception in thread "main" java.lang.ArrayIndexOutOfBoundsException: Index 0 out of bounds for length 0
    at CounterMain.main(Counter.java:24)
local $ java CounterMain 4000
Server Started! Visit http://localhost:4000 to visit.
```

< > ↺ 📖

! http://localhost:4000

What do you notice and wonder about this program?

Number: 0

< > ↺ 📖

! http://localhost:4000/count

- num goes up by 1 each time  
- 4000 is the argument after java CounterMain

Number is now 1

< > ↺ 📖

! http://localhost:4000/count in terminal

- it shows up in URL

Number is now 2