

# A portfolio with Github Pages

# HTML

- angle brackets
- should be in pairs, eg <p>Hello</p>
- maybe in implicit pairs, such as <br/>

```
<!DOCTYPE html>
<html>
  <head>
    <title>Title</title>
  </head>
  <body>
    <h1>Body Title</h1>
    <p>Body Content</p>
  </body>
</html>
```

# Developer Tools in browsers

- ctrl/cmd shift i in chrome
- cmd-option-i in safari
- look for "inspect element"
- locate details of tags

# Access via CSS selectors

- .funny means an element with class "funny": e.g. <span class="funny">...</span>
- #first means an element with id "first": e.g. <span id="first">...</span>
- you can specify the type of element. e.g. div.funny vs span.funny
- more information [here](#)

# Demographics table we want

*Student demographics (Fall 2019)* [104]

	Undergrad	Grad/prof
<b>Asian</b>	21%	13%
<b>Black</b>	9%	5%
<b>Hispanic or Latino</b>	11%	7%
<b>White</b>	37%	38%
<b>Two or more races</b>	8%	3%
<b>International</b>	12%	32%

# Table with sole class wikitble

The screenshot shows a web browser window displaying the Harvard University Wikipedia page. The page content includes sections on student life, government, and athletics. A sidebar on the right contains a table titled "Student demographics (Fall 2019)". Below the table, the developer tools' element inspector is visible, highlighting the HTML structure of the table.

numbers of alumni holding CEO positions in [Fortune Global 500](#) companies.<sup>[99]</sup> According to annual polls done by [The Princeton Review](#), Harvard is consistently among the top two most commonly named "dream colleges" in the United States, both for students and parents.<sup>[100][101][102]</sup> Additionally, having made significant investments in its [engineering school](#) in recent years, Harvard was ranked third worldwide for Engineering and Technology in 2019 by [Times Higher Education](#).<sup>[103]</sup>

## Student life

### Student government

The [Harvard Undergraduate Council](#) and the [Harvard Graduate Council](#) are the chief organs of student government.

### Athletics

*Main article: [Harvard Crimson](#)*

The Harvard Crimson fields 42 intercollegiate sports teams in the [NCAA Division I Ivy League](#), more than any other college in the country.<sup>[105]</sup> Every two years, the Harvard and Yale [track and field](#) teams come together to compete against a combined [Oxford](#) and [Cambridge](#) team in the oldest continuous international amateur competition in the world.<sup>[106]</sup> As with other Ivy League universities, Harvard does not offer color is [crimson](#).

Harvard's athletic rivalry with [Yale](#) is intense in every sport in which they meet, coming to a climax each fall in the [annual](#) [Harvard-Yale Game](#) of 1875.<sup>[108]</sup>

	Undergrad	Grad/prof
Asian	21%	13%
Black	9%	5%
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White	37%	38%
Two or more races	8%	3%
International	12%	32%

```
<div><table><thead><tr><th>Asian </th> = $0</tr></thead><tbody><tr><td>21%</td><td>13% </td></tr><tr><td>9%</td><td>5% </td></tr><tr><td>11%</td><td>7% </td></tr><tr><td>37%</td><td>38% </td></tr><tr><td>8%</td><td>3% </td></tr><tr><td>12%</td><td>32% </td></tr></tbody></table>
```

# Web Servers

- A server is a long running process (also called daemon) which listens on a pre-specified port
- and responds to a request, which is sent using a protocol called HTTP
- A browser must first we must parse the url. Everything after a # is a fragment. Until then its the DNS name or ip address, followed by the URL.

The screenshot shows the English Wikipedia homepage. At the top, the URL is en.wikipedia.org/wiki/Main\_Page. Below the header, there's a navigation bar with links to Google Maps, Wikipedia, jQuerify, pinit, Today: Todoist, KindleCR, gmail, Imbox, Twitter, Pinboard, m1ready?, libgen, and uadrive. On the right side of the header, it says "Not logged in" with links to "Talk" and "Contribution". Below the header, there are four tabs: "Read", "View source", "View history", and "Search Wikipedia". The main content area features a decorative banner with colorful, abstract shapes (yellow, pink, blue) resembling confetti or balloons. The text "It is Wikipedia's birthday!" is displayed in bold black font. Below this, a message reads: "For Wikipedia's 20th Birthday, we would like to thank everyone who has made our movement possible. Including you! [Join the movement](#)". Further down, there's a section titled "Why contribute to Wikipedia?" which includes a bulleted list of categories: "The arts", "History", "Science", "Biography", "Mathematics", "Technology", "Geography", "Science", and "AI". A note below states: "Wikipedia is celebrating its 20th birthday! [Learn how you can take part](#) in the encyclopedia's continued improvement." On the left, there's a "Featured article" box about Alexander II Zabinas. On the right, there's a "In the news" box with a section about the COVID-19 pandemic.

It is Wikipedia's birthday!

For Wikipedia's 20th Birthday, we would like to thank everyone who has made our movement possible. Including you! [Join the movement](#)

Why contribute to Wikipedia?

- The arts
- History
- Science
- Biography
- Mathematics
- Technology
- Geography
- Science
- AI

Wikipedia is celebrating its 20th birthday! [Learn how you can take part](#) in the encyclopedia's continued improvement.

**Featured article**

**Alexander II Zabinas** (c. 150 BC – 123 BC) was a Seleucid monarch of the Hellenistic period who reigned as [King of Syria](#) between 128 BC and 123 BC.

**In the news**

**COVID-19 pandemic:** Disease · Virus · By location · Impact ·

- [Yoweri Museveni \(pictured\)](#) is [re-elected](#) as President of

# The HTTP protocol

Our notebooks also talk to a local web server on our machines:

`http://localhost:8888/Documents/ml-1/BLA.ipynb#something`

- protocol is http, hostname is localhost, port is 8888
- url is /Documents/ml-1/BLA.ipynb
- url fragment is `#something`

Request is sent to localhost on port 8888. It says:

Request:

`GET /Documents/ml-1/BLA.ipynb HTTP/1.0`

# Example with Response: Google

GET / HTTP/1.0

Host: www.google.com

HTTP/1.0 200 OK

Date: Mon, 14 Nov 2016 04:49:02 GMT

Expires: -1

Cache-Control: private, max-age=0

Content-Type: text/html; charset=ISO-8859-1

P3P: CP="This is ..."

Server: gws

X-XSS-Protection: 1; mode=block

X-Frame-Options: SAMEORIGIN

Set-Cookie: NID=90=gb5q7b0...; expires=Tue, 16-May-2017 04:49:02 GMT; path=/; domain=.google.com; HttpOnly

Accept-Ranges: none

Vary: Accept-Encoding

<!doctype html><html itemscope=""

itemtype="http://schema.org/WebPage" lang="en">

<head><meta content="Search the world's information,



Apple Google Maps Wikipedia jQuerify pinit Today: Todoist KindleCR gmail Imbox Twitter Pinboard m1ready? libgen uadriv



## Page not found

/w/index.ph

We could not find the above page on our servers.

Did you mean: [/wiki/index.ph](#)

Alternatively, you can visit the [Main Page](#) or read [more information](#) about this type of error.

# HTTP Status Codes<sup>1</sup>

- 200 OK:  
Means that the server did whatever the client wanted it to, and all is well.
- 201 Created:  
The request has been fulfilled and resulted in a new resource being created. The newly created resource can be referenced by the URL(s) returned in the entity of the response, with the most specific URI for the resource given by a Location header field.
- 400: Bad request  
The request sent by the client didn't have the correct syntax.
- 401: Unauthorized  
Means that the client is not allowed to access the resource. This may change if the client retries with an authorization header.
- 403: Forbidden  
The client is not allowed to access the resource and authorization will not help.
- 404: Not found  
Seen this one before? :) It means that the server has not heard of the resource and has no further clues as to what the client should do about it. In other words: dead link.
- 500: Internal server error  
Something went wrong inside the server.
- 501: Not implemented  
The request method is not supported by the server.

---

<sup>1</sup> (from <http://www.garshol.priv.no/download/text/http-tut.htm>)

# Markdown

- simple text based format, reads like text
- easily convertible to formats such as html and latex
- used to write text cells in jupyter notebooks/colab
- used in every blogging tool/content management system out there
- a good first step to learning about more complex systems such as latex
- **YOU NEED TO KNOW THIS**

# Markdown syntax

- comes in multiple flavors
- github flavored markdown, multimarkdown, and the commonmark spec are popular ones
- we will use github flavored markdown. Its supported by jupyter/colab, great markdown editors such as typora, and most blogging tools
- it is legitimate to embed any inline html into markdown text. This can make it very useful for custom content

# Markdown Basics

From the original markdown spec:

A paragraph is simply one or more consecutive lines of text, separated by one or more blank lines. (A blank line is any line that looks like a blank line – a line containing nothing but spaces or tabs is considered blank.) Normal paragraphs should not be indented with spaces or tabs.

I have found that having a blank line between paras works in most editors to keep the paras separate.

The following notes have been lightly edited from Typora's documentation.

# Headers

Headers use 1-6 hash (#) characters at the start of the line, corresponding to html header levels H1-H6.

```
# This is an H1
```

```
## This is an H2
```

```
##### This is an H6
```

For example, the header of this slide is a h2.

# Basic text

\*\*Bold\*\* or bold

>makes a quote

\*emphasis\* or emphasis

gives us

~~strikethrough~~

makes a quote

gets us

**Bold**, *emphasis*, and ~~strikethrough~~

while codish text is done thus:

--- by itself on a line gets us a horizontal line.

Here is some `code`.

Here is some code.

# Code environments

Just indent the text in by a tab:

```
printf(5)
```

gives:

```
printf(5)
```

More specific code environments are supported in GFM via backticks and (optionally) the name of the language. So:

```
```python
def f:
    pass
```
```

gives us:

```
def f:
    pass
```

# Lists

- Red
  - Green
  - Blue
- 1. Red
  - 2. Green
  - 3. Blue

gives:

- Red
- Green
- Blue

gives:

- 1. Red
- 2. Green
- 3. Blue

# Links and URLs

This is [an example](<http://example.com/> "Title") inline link.

**This is an example** inline link.

[This link](<http://example.net/>) has no title attribute.

**This link** has no title attribute.

## Literal Links (URLs)

<<https://www.google.com>>  
produces <https://www.google.com>.

## Definition Links

This is [an example][id] reference-style link.

Then, anywhere in the document,  
you define your link label on a line  
by itself like this:

[id]: <http://example.com/> "Optional Title Here"

**This is an example** reference-style  
link.

# Images

The syntax for inserting an image looks like this:

```
![Alt text](/path/to/img.jpg)
```

```
![Alt text](/path/to/img.jpg "Optional title")
```

For example `![demographics](images/demo1.png)` gives us



|                           | Undergrad | Grad/prof |
|---------------------------|-----------|-----------|
| <b>Asian</b>              | 21%       | 13%       |
| <b>Black</b>              | 9%        | 5%        |
| <b>Hispanic or Latino</b> | 11%       | 7%        |
| <b>White</b>              | 37%       | 38%       |
| <b>Two or more races</b>  | 8%        | 3%        |
| <b>International</b>      | 12%       | 32%       |

# Math

We use \$ to wrap a inline TeX command. For example:  $\$\\lim_{x \\rightarrow \\infty} \\exp(-x) = 0\$$  will be rendered as LaTeX: 
$$\lim_{x \rightarrow \infty} \exp(-x) = 0.$$

If you use two dollars we get block level math. So, by itself:

$\$\$\\lim_{x \\rightarrow \\infty} \\exp(-x) = 0\$\$$

gives us:

$$\lim_{x \rightarrow \infty} \exp(-x) = 0$$

# Tables

In markdown source code, they look like:

|              |               |
|--------------|---------------|
| First Header | Second Header |
| Content Cell | Content Cell  |
| Content Cell | Content Cell  |

You can also include inline Markdown such as links, bold, italics, or strikethrough in the table.

| First Header | Second Header |
|--------------|---------------|
| Content Cell | Content Cell  |
| Content Cell | Content Cell  |

Columns can also be left-aligned, right-aligned, or center-aligned:

|               |                 |               |
|---------------|-----------------|---------------|
| Left-Aligned  | Center Aligned  | Right Aligned |
| col 3 is      | some wordy text | \\$1600       |
| col 2 is      | centered        | \\$12         |
| zebra stripes | are neat        | \\$1          |

| Left-Aligned  | Center Aligned  | Right Aligned |
|---------------|-----------------|---------------|
| col 3 is      | some wordy text | \\$1600       |
| col 2 is      | centered        | \\$12         |
| zebra stripes | are neat        | \\$1          |

# Conversions

There is a 1-1 correspondence between markdown syntax and html tags. And for that matter latex syntax. The software [pandoc](#) will provide even further conversions, to word and other formats.

You thus do not need to know html right away, though you should get some idea of its structure by using the developer tools

# Content Management Systems: YAML

Yet Another Markdown Language is a simple syntax for dictionaries and lists that is used as an input to blogging and content management systems as metadata that these systems use. For example, the page for this workshop on <https://community.univ.ai> looks like this (its sandwiched between 2 sets of 3 horizontal dashes):

```
---
```

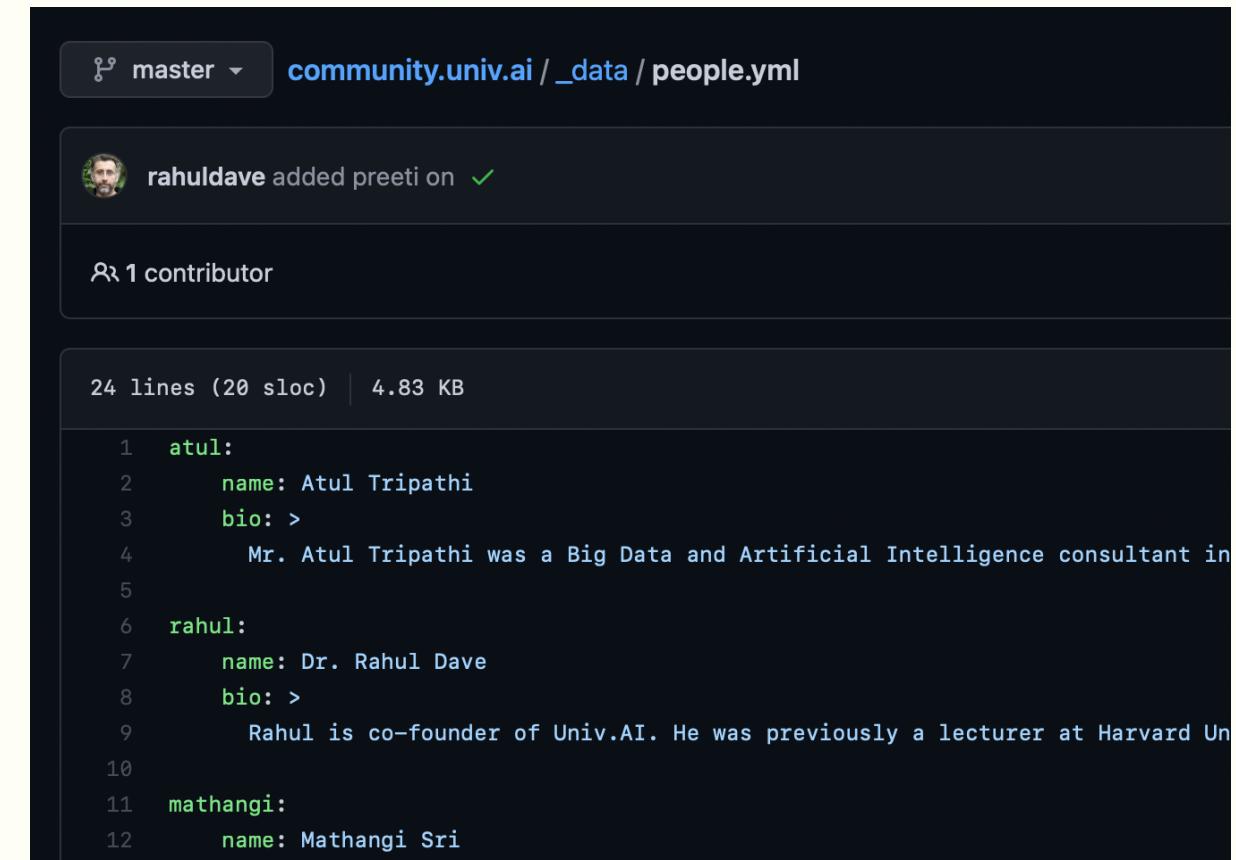
```
title: "Projects and Portfolios with Github Pages"
permalink: /courses/projects-with-github-pages/
cycle: c1
kind: workshop
duration: 1.5
series: ops
difficulty_level: 'beginner'
teacher: rahul
excerpt: A workshop on using github pages to host your blog posts and project portfolios.
sequence: 8.5
header:
  overlay_image: /assets/images/visualization.jpeg
  teaser: assets/images/visualization.jpeg
runs:
- label: "11AM EST, 9.30 PM IST, Thursday Mar 31st, 2022"
  when: 2022-03-31T21:30+05:30
  url: "https://my.univ.ai/meetups/projects-with-github-pagess-c1"
  color: primary
---
```

# How to render

This YAML is used as variables in templates, both site wide and document wide. The [workshop page](#) is rendered using this template:

```
## What?  
{{ page.excerpt }}  
  
## When and Where?  
  
{% for item in page.runs %}  
<span class="notice--{{ item.color }}">  
{{ item.label }} & </span>  
[Register]({{ item.url }})  
{: .btn .btn--large .btn--{{ item.color }}}  
  
{% endfor %}  
  
...  
  
## Who?  
  
**{{ site.data.people[page.teacher].name }}**  
  
{{ site.data.people[page.teacher].bio }}
```

The site part comes from another file:



A screenshot of a GitHub repository page for the file `_data/people.yml`. The repository is named `community.univ.ai`. The commit history shows a single commit by `rahuldave` adding `preeti` to the file. The file has 24 lines (20 sloc) and is 4.83 KB in size. The content of the file is as follows:

```
1 atul:  
2   name: Atul Tripathi  
3   bio: >  
4     Mr. Atul Tripathi was a Big Data and Artificial Intelligence consultant in  
5  
6 rahul:  
7   name: Dr. Rahul Dave  
8   bio: >  
9     Rahul is co-founder of Univ.AI. He was previously a lecturer at Harvard Un  
10  
11 mathangi:  
12   name: Mathangi Sri
```

# The structure of Jekyll

The screenshot shows a GitHub repository page for the user 'brownschoolbandaid' with the repository name 'brownschoolbandaid.github.io'. The repository is public and was generated from 'mmistakes/mm-github-pages-starter'. The main navigation bar includes links for Code, Issues, Pull requests, Actions, Projects, Wiki, Security, Insights, and Settings. The 'Code' tab is selected, showing the master branch with 1 branch and 0 tags. The commit history lists several files and their changes:

| File                                | Commit Message               | Date         |
|-------------------------------------|------------------------------|--------------|
| rdw130 Update 2022-03-21-meeting.md | 4137b56 9 days ago           | 54 commits   |
| _data                               | Update navigation.yml        | 4 months ago |
| _pages                              | Update equity.md             | 4 months ago |
| _posts                              | Update 2022-03-21-meeting.md | 9 days ago   |
| assets/images                       | changed size                 | 4 months ago |
| .gitignore                          | Initial commit               | 4 months ago |
| Gemfile                             | Initial commit               | 4 months ago |
| README.md                           | Initial commit               | 4 months ago |
| _config.yml                         | Update _config.yml           | 4 months ago |
| index.md                            | Update index.md              | 9 days ago   |

On the right side, there is an 'About' section for the repository, which includes the title 'Brown School Blacktop Replacement Web Site', a 'Readme' link, 0 stars, 2 watching, and 1 fork. There are also sections for 'Releases' (no releases published) and 'Packages' (no packages published).

# Your first site

Go to <https://github.com/rahuldave/gpages> and follow the instructions there.

You will be here creating a very basic site. This site is NOT adequate for a personal portfolio but gets you started.

And it gets you going with my second silent aim in this workshop: it gets you hacking

# Why you should blog?

See <https://medium.com/@racheltho/why-you-yes-you-should-blog-7d2544ac1045>.

- RECALL: Writing what you learned imprints it into the brain
- TEACH: Others will learn from it. You are best positioned to help people just behind you.
- SOCIAL: you will create a network which will help you with job offers and gigs

Dont be a perfectionist!

# Blog Ideas

- links to other amazing blog posts. Especially if you put these in a context of a review on a particular subject.
- Summarize a class or track at a conference, or a book.
- If you've answered or asked a question more than once, chances are many others had the same doubt! Write it up!

# From blog to portfolio

This now is your homework.

Create a repo: `username.github.io` . Github will make this into a personal site. See <https://pages.github.com/>.

Use the Minimal Mistakes Theme: <https://mmistakes.github.io/minimal-mistakes/docs/quick-start-guide/>. I found it useful to use their template at <https://github.com/mmistakes/mm-github-pages-starter/generate> which generates your repo for you.

Now make sure you have a blog section and an about page where you put your CV/linked-in, etc up. You can also create one-off pages for more permanent things like apps. Use categories and tags to highlight projects, or writings, etc