CompSci 94 Creating a Web page with HTML Sept. 3, 2019



Prof. Susan Rodger

Class Today

- Some History of web pages
- Learning HTML and creating a web page
- Use Glitch to create web pages
- Due
 - Assignment 1 is due tonight
 - QZ's always due 8:30am day of class
- Next time add colors with CSS

Browsers on the Web

- First browser called "WorldWideWeb"
 - Hypertext browser/editor
 - Created in 1990 by Tim Berners-Lee at CERN
 - 1991 available on internet
- Lynx
 - Textual browser, 1992, history
 - Lou Montulli, Charles Rezac, Michael Grobe

CompSci 4 Fall 2010 Webpage in Lynx

🕮 2:mortarboard.cs.duke.edu - defaultsftp - SSH Secure Shell		
Eile Edit View Window Help		
Quick Connect 🧰 Profiles		
	CompSci 4, Fall 2010, Home (pl of 4	4) 🔷
CompSci 4, Fall 201 Home	10	
<pre>* Home * Info * Dates * Dates * Assgn * Groups * Groups * Help * Resrces * StPages * StPages * StProjs * Animatns * Bulletin * Blackbd</pre>		
Course Announcements * You will need to put Alice 2.2 op your lapton	by Thursday, Sept. 2.	
* August 31 is the first day of class.	2, marbad, , seper 2.	
[INLINE]		
CompSci 4 Introduction to Programming Via Animation and 3D Virtual Worlds		
press space for next page Arrow keys: Up and Down to move. Right to follow a H)elp O)ptions P)rint G)o M)ain s (CempSoi u 94 Fale20	link; Left to go back. d¶9[delete]=history list	4
Connected to mortarboard.cs.duke.edu	SSH2 - aes128-cbc - hmac-rr 90x32 🛛 🏹 👘	

What it looked like in Firefox:



Other Browsers

- Mosaic
 - 1993, Univ of Illinois Urbana-Champaign
 - Last version in 1997
- Netscape
 - 1994 by Jim Clark and Marc Andreessen
 - Hired most of Mosaic Engineers and Montulli (lynx)
 - History (pdf)
- Internet Explorer
 - 1995, first version attached to Windows 95, not very popular
 - History (pdf)
- More recent: FireFox, Safari, Chrome

How do these Browsers view the same info?

- Standards
 - Html is HyperText Markup Language
 - NOT a programming language
 - Figure formats (gif, jpeg, tiff)
 - Scripts (javascript, cgi)
- Plug-ins
 - Program provided by companies that are run when specific file is downloaded

URLS

Image: Image: https://www2.cs.duke.edu/courses/fall19/compsci094/

- Uniform Resource Locator
- Address of location of a web site or other Internet service
- Organized first by protocol
 - http, mailto, ftp, file
- Organized next by domains

ICANN

- .com, .edu, .org, country (.it, .fr, .de)
- Organized finally by directory on specific machine Compsci 94 Fall 2019

We will create web pages using Glitch

• Create a free account at





Glitch starts a new webpage for you Click on new project and select hello-webpage



Glitch creates a project web page for you

	\leftrightarrow \rightarrow C' \textcircled{a} 10 \textcircled{a} http	os://glitch.com/edit/#!/reinvented-thunbergia?path=READ … 🕑 🟠
	🧮 reinvented-thunbergia 🗸 💰	Show V README.md
Name of project that Glitch creates	<pre>Share ✓</pre> New File ✓ I assets README.md index.html script.js style.css	Markdown ● Welcome to Glitch Click show in the header to see your app live. Updates to you deploy and update live. Glitch is the friendly community where you'll build the app or lets you instantly create, remix, edit, and host an app, bot or collaborators or helpers to simultaneously edit code with you Find out more about Glitch. Your Project ← README.md That's this file, where you can tell people what your cool web built it

HTML is written in file index.html

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Click on index.html

HTML shown here

🧮 reinvented-thunbergia 🗸	<pre></pre>
Share V	<pre>(4) 1 k!DOCTYPE html></pre>
Share +	2v <html lang="en"></html>
	³ [×] ≺head≻
New File 🗸	<pre>4v <title>Susan's webpage</title></pre>
	<pre>5 <meta charset="utf-8"/></pre>
assets	<pre>6 <meta content="IE=edge" http-equiv="X-UA-Compatible"/></pre>
README.md	7 <meta content="width=device-width, initial-scale</p></td></tr><tr><td>index.html</td><td>8</td></tr><tr><td>scrint is</td><td>9 <! import the webpage's stylesheet></td></tr><tr><td>style cos</td><td><pre>10 <link rel=" href="/style.css" name="viewport" stylesheet"=""/>
style.css	12 $(l_{}, import the webpage's investigat file $
	13 (script src="/script_js" defent/(script)
	14
	15 × <body></body>
	16 < <hi>Susan's Webpage for CompSci 94</hi>
	17
	18~
	<pre>19~ I love to bake cookies</pre>
	28 and cakes
	21

To See web page with code

• Click on "Show", then "Next to the Code"

← → C f			
🧮 reinvented-thunbergia 🗸	€ Show ∨	index.html	
Share 🗸			
New File 🗸			
回 assets README.md	In a New Window	Next to The Code	



An HTML file

- Write HTML commands in a text file
- File should have .*html* extension
- View file with browser
 - Save file and check often
- In Glitch, default file created is *index.html*

Starting-default for new project

```
<!DOCTYPE html>
1
   <html lang="en">
2~
      <head>
3.~
        <title>Hello!</title>
4 \times
        <meta charset="utf-8">
5
        <meta http-equiv="X-UA-Compatible" content="IE=edge">
6
        <meta name="viewport" content="width=device-width, initial-scale=1">
7
8
        <!-- import the webpage's stylesheet -->
9v
        k rel="stylesheet" href="/style.css">
10
11
        <!-- import the webpage's javascript file -->
12 \times
        <script src="/script.js" defer></script>
13
14
      </head>
      <body>
15 \times
        <h1>Hi there!</h1>
16 \times
17
18×
        I'm your cool new webpage. Made with <a href="https://glitch.com">Glitch</a>!
19 \times
        20
21
        <!-- include the Glitch button to show what the webpage is about and
22~
              to make it easier for folks to view source and remix -->
23
        <div class="glitchButton" style="position:fixed;top:20px;right:20px;"></div>
24
25
        <script src="https://button.glitch.me/button.js"></script>
      </body>
26
    </html>
27
28
```

Starting HTML looks like this on a webpage



HTML tags

- First tag "< >" says, "Begin Mode"
- Second tag "</ >" says "End Mode"
 - note the "/"
- Example
 - <title>Flavor of the Week </title> means
 - Begin title mode
 - "Flavor of the Week" is in title mode
 - End title
 - Can nest several modes

HTML

- Some General HTML rules
 - For tags, case doesn't matter
 - <html> is equal to <HTML>
 - In the text, spaces don't matter (free format)
 -
br> starts a new line (doesn't need end tag)
- Headings
 - Use <hn> for heading size, the smaller n, the larger the heading
 - $< h_1 > \dots < /h_1 > is largest heading$
 - $< h4 > \dots < /h4 > is minor heading$

Example: HTML – Basic Page Structure

<html>

<head>



<title> Susan's webpage </title> </head> <body> <center> <h1> Susan's Webpage for CompSci 94</h1> </center> I love to bake cookies and cakes! </body> Compsci 94 Fall 2019 20 </html>

HTML tags start and end document

<mark><html></mark>

<head>

<title> Susan's webpage </title>

</head>

<body>

<center>

</html>

<hl> Susan's Webpage for CompSci 94 </hl>

I love to bake cookies and cakes!

Head tag with title inside header items don't show in body of page

<html>

<mark><head></mark>

<title> Susan's webpage </title>

<body>

<center>

<hl> Susan's Webpage for CompSci 94 </hl>

I love to bake cookies and cakes!
</body>
</html>
22

Body – part that appears in web page

<html>

<head>

<title> Susan's webpage </title>

</head>

<body>

<center>

<hl> Susan's Webpage for CompSci 94</hl> </center>

I love to bake cookies and cakes!
</body>

</html>

H1 header tag – big font

<html> <head> <title> Susan's webpage </title> </head> <body> <center> <mark><h1></mark>Susan's Webpage for CompSci 94 <mark></h1></mark> </center> > I love to bake cookies and cakes! </body> Compsci 94 Fall 2019 24 </html>

P - paragraph

<html> <head> <title> Susan's Web Page </title> </head> <body> <center> <h1> Susan's Web Page </h1> </center> I love to bake cookies and cakes! < / ั Ɗ > </body> Compsci 94 Fall 2019 25 </html>

Page on a web browser https://reinvented-thunbergia.glitch.me/



HTML

- Add links
- The Duke web page
- Italics or emphasis
 <i>> or
- Darker or bold use
 - - or
- Text exactly as typed with spaces
 -



HTML - Lists

- Bulleted list (unordered list)
 - <mark></mark>

> item in list

- Ordered list

<01>

first item in list second item in list

• Can nest arbitrarily deep – lists within lists

Example of ordered list



Ordered list tag

Ordered list displayed

HTML – Table



- table row
- > table data
- Table header

HTML –Images

• Images – displays an image

- Or
 if the file is in the same folder as this web page
- Can upload a file in Glitch into your project
 Explained how in next few slides
- Add *width=300* other number to set the width of the image.

Example html - table and image

32 ×	<h2></h2>
33	My cats
34	
35~	
36~	NAME
37 🗸	CHARACTERISTICS
38~	KeaahHalf white and
39	half grayURL
40~	SelenaGray with
41	white paws
42~	MoeSnown
43	white under chin
44	
45	<img 300"="" src="https://cdn.glitch.com/21d67e4d-</th></tr><tr><th>46</th><th>width="/>
47	

How table and image are displayed

My cats

NAME	CHARACTERISTICS	
Keaah	Half White and half gray	
Selena	Gray with white paws	
Moe	Mostly gray with white under chin	



How do you get a picture into Glitch?

- First find a picture you want and save it on your computer.
- Then click on New File
- Then click on Upload a File



Files are stored in assets folder

Then click on picture

Click on assets folder

reinvented-thunberg	ia 👻 🐠 Sho	w ~ index.huml
Share 🗸	٩ (١	Jpload an Asset 👔
New File ✓		
README.md index.html		R
<pre>script.js style.css</pre>		- And

Picture has URL to it in Glitch



Click on Copy to copy image URL

Then paste that URL into your html in the file index.html

Classwork - Create a Web page

- Create an animal web page complete by next class period. (see separate handout)
- Can work with someone else on ideas, but both must create their own web page.
- We will check this off in class!