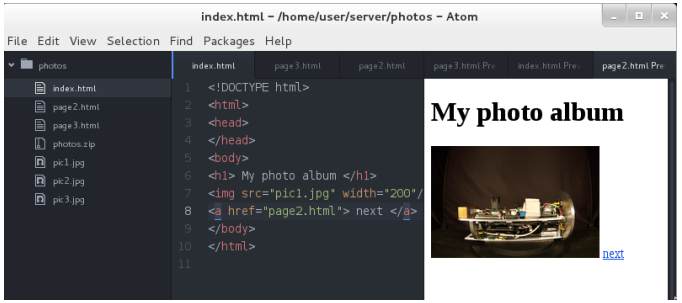
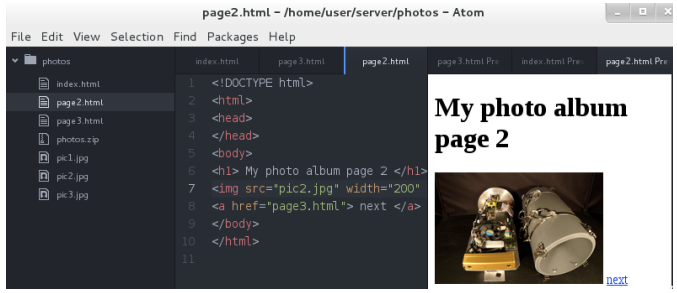
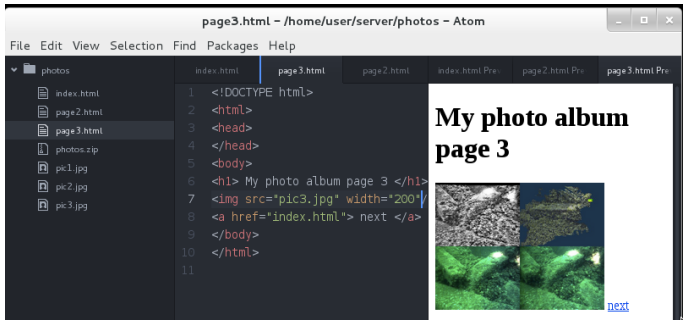
EECS 1012: Introduction to Computer Science

September 23, 2016







Download onto Android device

Adding some features

- Add a previous link
- Replace text links with images
- Structure into directories

Dealing with style

- When the web was younger, there was not a lot of attention paid to making pages render 'well' or 'in an intended style' on different hardware platforms.
  - That has changed…
- CSS (Cascading Style Sheets) are used to localize/ compartmentalize/specify how the content of a particular web page should appear.
  - HTML -> content
  - CSS -> style

HTML5 & CSS

- In general, it is considered better style to separate style information (CSS) from content information (HTML) and to put both in separate files.
- Many advantages here, but one obvious one is that it enables style to be consistent over a web site.
- HTML files end in .html
- CSS files end in .css

Link to external CSS from HTML

```
<head>
<link rel="stylesheet" type="text/css" href="mystyle.css">
</head>
```

CSS

- Cascading style sheet
- Goal is to separate content (text) from style (how it appears)
- It has a "C-like" syntax as opposed to HTML which has an XML (eXtensible Markup Language) syntax

So, a toy example

CSS file

- text file
- “white space does not count” (free format)
- c-style comments
- basic element is the selector

Selector

pattern {
property : value;
property : value;
…
}

What to match against

p {
color : red;
}

match paragraphs

Selector

pattern {
property : value;
property : value;
…
}

this property, that value

p {
color : red;
}

do things in red

Various selector possibilities

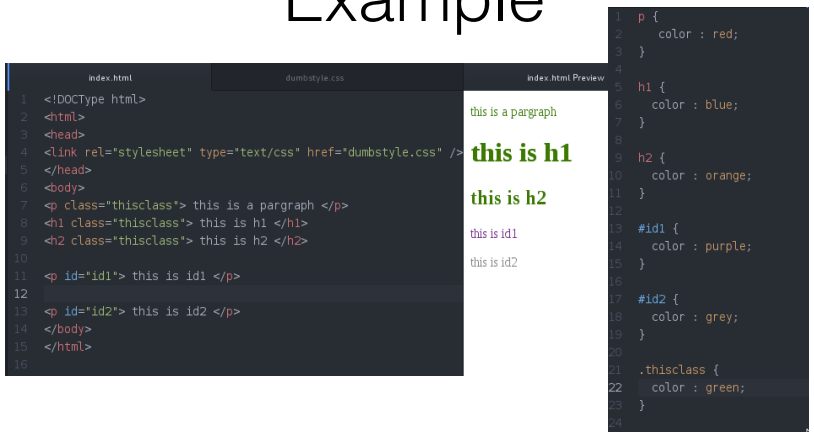
- name - that HTML element (element selector)
- #name - that ID (id selector)
- .name - that CLASS (class selector)

more options too, but lets start here

id

- <tag id="mytag"> …. </tag>
  - will match #mytag (only one)
- <tag class="myclass"> … >/tag>
  - will match .myclass (one or more)

Example



Attributes

- Huge number, learn the ones you need
- Lets look at one or two here
- color : value;
  - value - some way of defining a colour

Color attribute

- there are about 140 colours defined by name (red, green, blue, orange, white, black, grey, …. midnight blue, ….)
- You can give by rgb(r, g, b) in range 0..255
- You can give by rgba(r,g,b,a) (r,g,b) in range 0..255, a in range 0 (transparent)…1 (opaque)
- by hex
  - #00fff0
- Other choices too

Property background-color

```
p {
   color : red;
}

h1 {
  color : blue;
}

h2 {
  color : orange;
}

#id1 {
  color : purple;
  background-color: violet;
}

#id2 {
  color : grey;
}

.thisclass {
  color : green;
}
```

this is a pargraph

this is h1

this is h2

this is id1

this is id2

So lets do something more meaningful

- Default <body> has some wasted space around it.
  - Lets get rid of it.
- Default <body> does not fill the entire screen
  - Lets make that happen

Units

- Can specify units of length (height) in absolute units
  - px (pixels … sort of)
  - cm, mm, pt (1/72 of inch), others
- Can specify units in relative units
  - 10%, em (width of current font - often width of the ‘m’ character), rem (width of root - html font)

Android

```
26  body {
27    width : 100%;
28    height : 100%;
29    padding : 0;
30    outline : 0;
31    border : 0;
32    outline : 0;
33    background-color : red;
34  }
```

Use up all the space (although the red background is just to show it working)