Internet Technologies

Introduction to HTML and CSS – Part 1 (Exercises)

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HTML: Structure of webpage

- html file (<html>), head section (<head>), body section (<body>)

- Headings (<h1>, <h2>, ... <h6>)

<h1>Heading 1</h1>
<h2>Heading 2</h2>
<h3>Heading 3</h3>
<h4>Heading 4</h4>
<h5>Heading 5</h5>
<h6>Heading 6</h6>

- Paragraph (<p>), newline (<br>), Link (<a>), bold (<strong> or <b>), italics (<em> or <i>)

- Unordered list (<ul>), ordered list (<ol>, <li>)

- Image (<img>)

Ordered Lists	Unordered Lists
1. Apple	•Apple
2. Banana	•Banana
3. Mango	•Mango
4. Pineapple	•Pineapple

```
<!DOCTYPE html>
<html>
  <head>
    <title></title>
  </head>
  <body>
      <h1>...</h1>
      <p>...</p>
      <ul>
        <li>...</li>
      </ul>
      ...
  </body>
</html>
```

CSS: Style of webpage

```
selector {
    property: value;
}
```

- Recommended to create a separate file e.g filename.css

- Link from html file: `<link rel="stylesheet" href="filename.css" />`

```css
p {
    font-family: Helvetica;
    color: white; /* or #ffffff or rgb(255,255,255) or rgba(255,255,255,1) */
    text-align: center; /* left, right, justify */
    background-color: green;
    border: 3px solid red;
    font-weight: bold; /* normal */
    font-style: italic; /* normal */
    text-decoration: underline; /* normal */
    text-transform: uppercase; /* lowercase, capitalize */
}
```
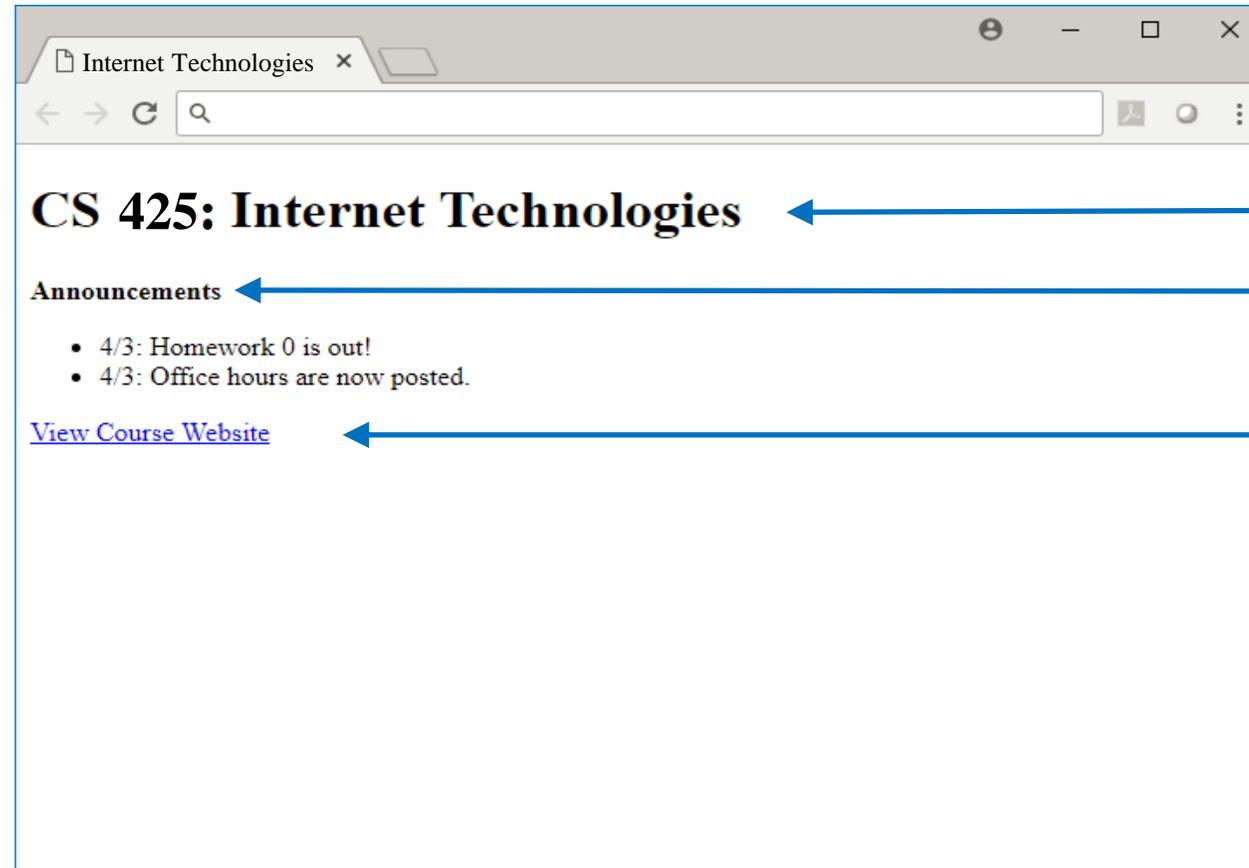
THIS IS AN EXAMPLE.

HTML generic tags

- Two generic tags with no intended purpose or style that are used to group elements together or define a region and apply a common style using CSS:

1. `<div>` : a generic **block** element

```
<div>                          HTML
    <h1>Homework 0</h1>
    <p>Due Friday.</p>
    <p>Late cutoff Sunday.</p>
</div>
```

```
div {                          CSS
    color: red;
    background-color: #0000ff;
}
```

2. `<span>` : a generic **inline** element

```
<p>The deadline for the       HTML
homework is <span>Friday the
23rd</span> of March</p>
```

```
span {                         CSS
    background-color: yellow;
}
```

Exercise 1: Create a simple web page

- Let's write some HTML (exercise1.html) to make the following page (no CSS styling needed):

Heading h1

Heading h2

Course website links to https://www.cs.ucy.ac.cy/courses/EPL425

Exercise 1: Create a simple web page

- HTML boilerplate

```
<!DOCTYPE html>
<html>
  <head>
   <title>Internet
Technologies</title>
  </head>
  <body>
   ...
  </body>
</html>
```

- Plaintext contents of the page

```
CS 425: Internet Technologies

Announcements
4/3: Homework 0 is out! Due
Friday.
4/3: Office hours are now
posted.

View Course Website
```

Exercise 1: Make web page available on Local and/or Departmental Web Server

- Local Web Server:
  - If working on Windows with XAMPP (installation steps given in Lab1) make web page accessible on: http://localhost/lab2/exercise1.html or http://127.0.0.1/lab2/exercise1.html
    - So, exercise1.html should be placed on C:\xampp\htdocs\lab2

- Departmental Web Server
  - Make web page available on https://www.cs.ucy.ac.cy/~username/lab2/exercise1.html
  - For more info on how to do that, please see next slide

Activate personal space on CS Web Server

- All CS students can activate their personal space on CS Web Server
  - E.g. personal space of a user with username apanep01 is accessed: https://www.cs.ucy.ac.cy/~apanep01

- In order to activate your personal space, follow the steps shown below:
  - Use MobaXterm (or Putty, or X2Go) to login via a terminal to your account on CS Web Server (ada.cs.ucy.ac.cy). Create a sub directory in your home directory and name it: **public_html**. The command for this is: **mkdir ~/public_html**. Next you have to set the permissions of this new directory to 755 (rwxr-xr-x), using command **chmod 755 ~/public_html**. All sub-directories that you will create later should have the same permissions. Also set the permissions of your HOME directory to 701 using the command: **chmod 701 ~**
  - Create a subfolder within public_html, namely lab2 that will host the exercise1.html. The command to create this folder is **mkdir ~/public_html/lab2**. In this way, your file can be accessed from the URL https://www.cs.ucy.ac.cy/~username/lab2
  - Using FileZilla or MobaXterm upload exercise1.html into the ~/public_html/lab2 folder

Exercise 2: Add styling to simple web page

- Let's write some CSS (create a separate .css file) to style our page:
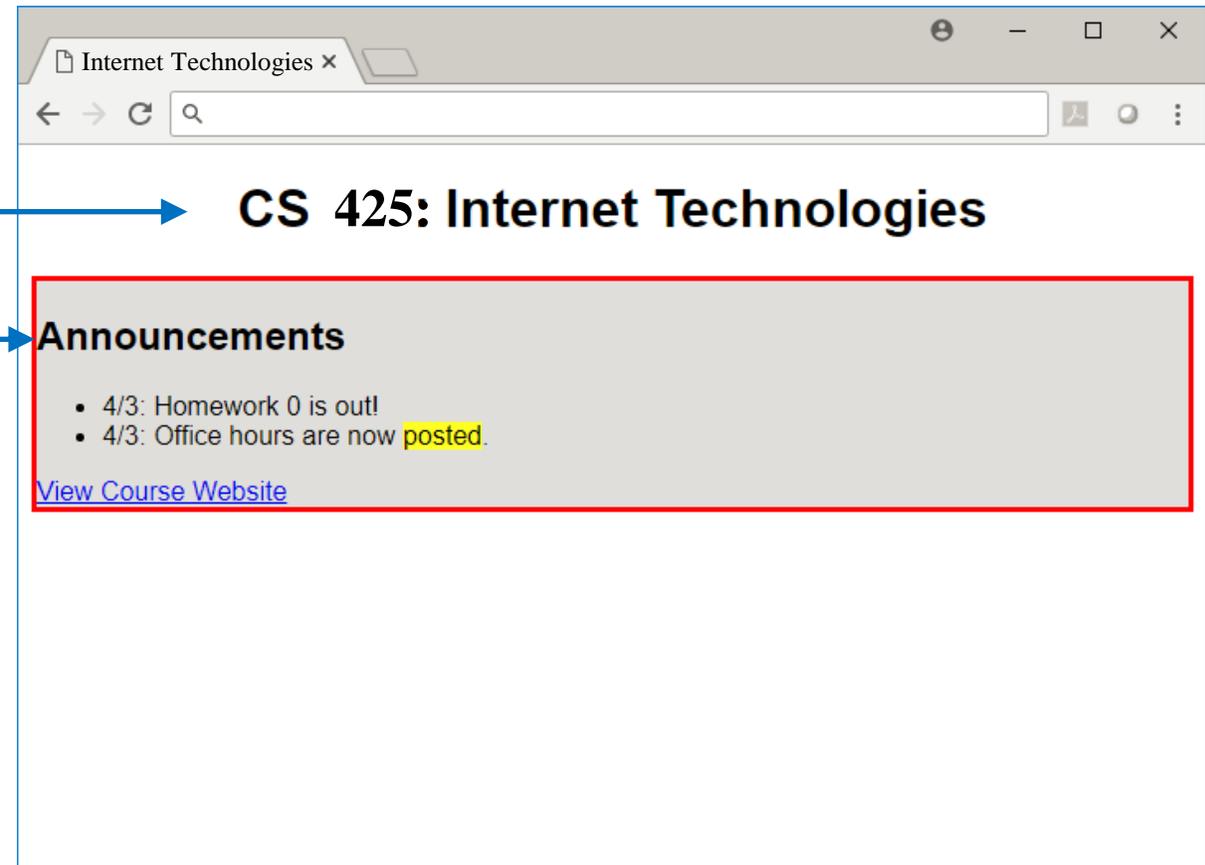
Font family (whole file): Helvetica

Border: red 3px

Background color: #dddddd

Highlight: yellow (use <span>)

Header h1 is **centered**

Header h2 is **left-aligned**

Webpage should be accessible on:
http://127.0.0.1/lab2/exercise2.html

Internet Technologies ×

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Announcements

- 4/3: Homework 0 is out!
- 4/3: Office hours are now posted.

View Course Website

Exercise 3: Traveler Times Newspaper

- The aim of this exercise is the creation of the following webpage (copy text from surfer.txt on lab webpage):

- Heading h1, black background

- Heading h2, blue background

- Image width 300px (image given in lab webpage)

Webpage should be accessible on:
http://127.0.0.1/lab2/exercise3.html

Traveler Times Newspaper

Puerto Escondido: Sun, Surf and Sand

Puerto Esconido is known for one of the wold's best surfing beaches, Playa Zicatela. It has a beautiful yellow sand beach and huge world-class surfing waves (but be careful if you go swimming... the current is very strong!).

Here is a picture of a surfer at Puerto Escondido...

You can group elements to apply centering

Tikal: Mayan Ruins in the Guatemalan Jungle

Tikal is the largest of the ancient ruined cities of the Mayan civilization. It is a really awesome, magical place. If you go to Tikal, you have three main lodging options:

- **Tikal National Park**: Fancier hotels.
- **El Remate** (~50km away): Hotels or hostels.
- **Flores** (~50km away): Hotels or hostels.

Drunk in Dublin

Throwin' back pints with the locals in Dublin this past summer made me really appreciate the pub culture. The top three bars in Dublin for craic (i.e. good fun) in order of preference are:

1. Davy Byrne's
2. Kehoe's

The price of a pint of beer is about €5. Although would recommend the cider (around €8 a pint).

Exercise 3: Traveler Times Newspaper

- Download the content of the page and the image from course website.

- Inspect the appearance of the webpage (previous slide) and create its HTML structure.

- Apply CSS to bring it to life.

- You may use these html tags: `p, em, h1, h2, br, img, ul, ol, li, strong, a` and special character € (special characters not present on keyboard can be set by their entity name e.g. `€` or their dec or hex number e.g. `&#8463` or `&#x20AC`).

- When you finish, deploy it to a web server (local or departmental).