Web Programming

LAB1: BASIC HTML AND CSS

Basic lab instructions

◦ You may want to *bring your slides* to labs to look up syntax and examples.

◦ Have a question? *Ask a TA* for help, or look at the lecture slides.

◦ We encourage you to *talk to your classmates*; it's okay to share code and ideas during lab.

◦ You don't have to finish all of the exercises. Just do as much as you can in the allotted time. You don't need to finish the rest after you leave the lab; there is no homework from lab.

Today's lab exercises

Today you will create a basic "About Me" HTML page and style it with a bit of CSS.

1. About Me Page
2. Style Your Page with CSS
3. Advanced Style Techniques
4. Favorite Movie
5. Decrementing ol

Exercise 1: "About Me" Page (~25-30 min)

Create a page aboutme.html that describes you. Include information such as:

◦ Your name

◦ A description of you in <= 2 sentences. Emphasize important word(s) in bold.

◦ A list of classes you are taking right now at Tongji.

◦ Your 3 favorite movies, books, or TV shows, in order. Make at least one link to an interesting site about that TV show/movie/book, such as its IMDB page.

◦ Two images that represent you when you're happy and sad.

◦ Something about one of your neighbors (people sitting next to you)

Exercise 1: example

This example page describes Victoria Kirst.

Look at the lecture slides about HTML to see examples of the right tags to use.

About Victoria Kirst

My name is Victoria and I am **jolly**, **clumsy**, and **four-eyed**.

My Classes This Quarter

- CSE 451 - Operating Systems
- CSE 471 - Computer Design and Organization
- PHYS 121 - Physics: Mechanics
- CSE 498 - Research w/ Prof. Luis Ceze

My Favorite Movies

(I actually don't watch too many movies, so... here goes!)

Unordered list: <ul>,

ul: represents a bulleted list of items (block)

li: represents a single item within the list (block)

```html
<ul>
    <li>No shoes</li>
    <li>No shirt</li>
    <li>No problem!</li>
</ul>
```

HTML

- No shoes
- No shirt
- No problem!

output

More about unordered lists

◦ A list can contain other lists:

```
<ul>
    <li>Harry Potter characters:
        <ul>
            <li>Harry Potter</li>
            <li>Hermione</li>
            <li>Ron</li>
        </ul>
    </li>
    <li>LOTR characters:
        <ul>
            <li>Frodo</li>
            <li>Bilbo</li>
            <li>Sam</li>
        </ul>
    </li>
</ul>
```

HTML

- Harry Potter characters:
  - Harry Potter
  - Hermione
  - Ron
- LOTR characters:
  - Frodo
  - Bilbo
  - Sam

output

Ordered list:

ol: represents a numbered list of items

```
<p>Apple business model:</p>
<ol>
<li>Beat Microsoft</li>
<li>Beat Google</li>
<li>Conquer the world!</li>
</ol>
```
HTML

Apple business model:
1. Beat Microsoft
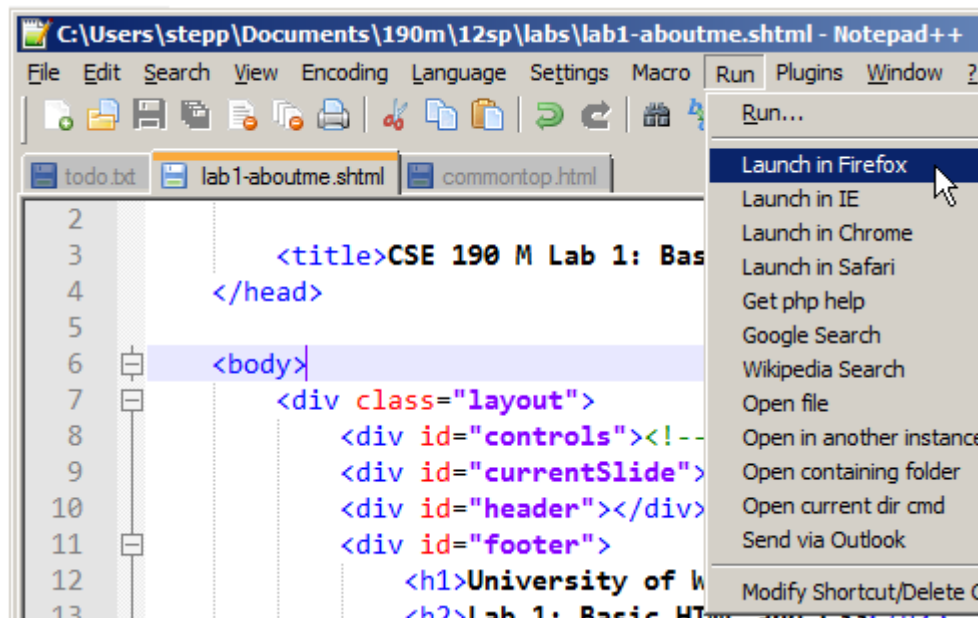2. Beat Google
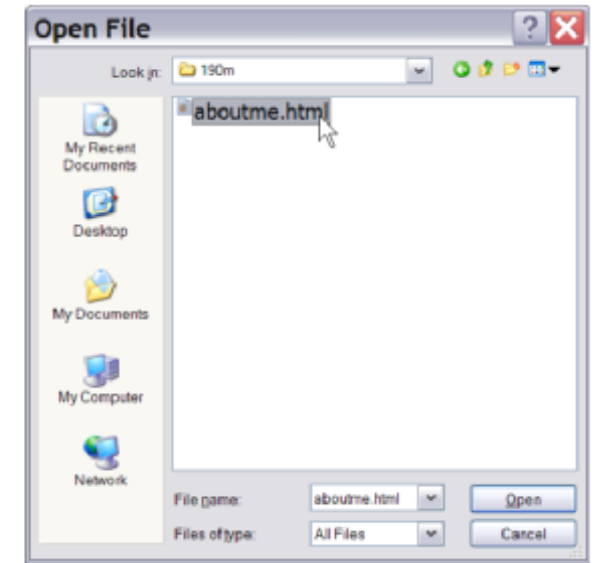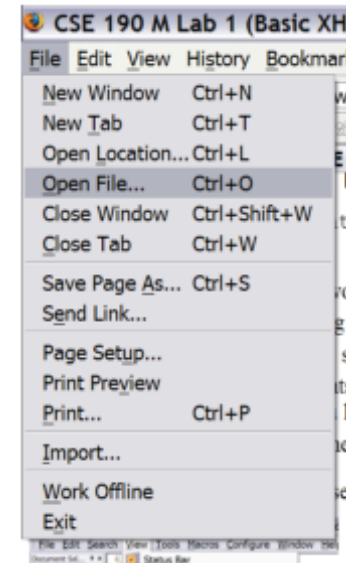3. Conquer the world

output

Exercise 1: how to view the page

To see your page in the web browser, press **Ctrl + O**, and then click on your html file.

In Firefox, click **File, Open File**... and browse to your page file to open it.

If using Notepad++, you can click **Run, Launch in Firefox**.
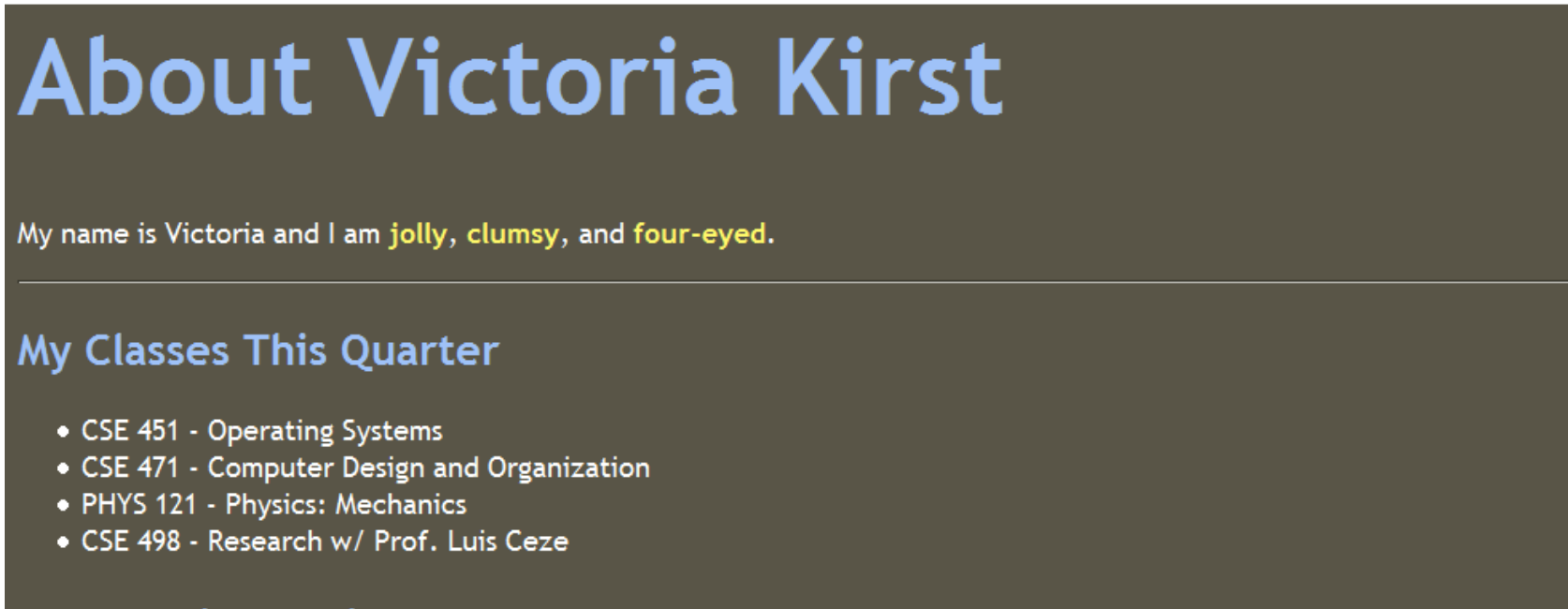

OR

Exercise 2: CSS Styles (~15 min)

(See example screenshot on next slide.)

Create a stylesheet named styleme.css to improve the appearance of your About Me page. You can find CSS properties in the lecture slides.

○ Change the color of at least two elements

○ Change the font properties (family, size, weight, or style) of at least two elements. Some standard fonts: Arial, Arial Black, Verdana, Trebuchet MS, Georgia, Tahoma, Courier New, Times New Roman

○ Change at least one other thing (e.g. background color, text alignment, etc.)

Exercise 2: example

This example is Victoria's styled page

Exercise 3: Advanced Styles (~15 min)

(See example screenshot on next slide.)

If you complete the previous exercises, great job! You can add any extra content to your page that you like. Or if you want a challenge, try to figure out how to add the following styles:

- Make your **hyperlinks not underlined** by default. When a user hovers over the link, the underline should appear. (Hint: Look for information about CSS pseudo-classes.)

- Make every paragraph start with a **drop-caps**; that is, a large initial letter that is 1.5 times the normal paragraph font size. (Hint: Look for information about CSS pseudo-elements.)

These are tricks not covered yet in class. Use Google or a CSS reference such as W3Schools.

Exercise 3: example

These are snippets of pages, showing links and drop-caps:

Links: (hover is not shown)

2. Star Trek Episode V with Zazu (IMDB)
3. Fight Club (not really, but I've seen like 3 movies total so this is my 3rd fave by technicality) (IMDB)

Drop-caps:

My name is Victoria and I am jolly, clumsy, and four-eyed.

Exercise 4: Favorite Movie (~15 min)

(See example screenshot on next slide and more information on the slide after.)

Look up one of the favorite movies/shows from your About Me page on imdb.com or douban.

- In your page, reproduce some of the film's IMDB info in a nested list under that movie's bullet.
  - The info is in short "topic": → "value" pairs, such as "Genre: Comedy".
  - Therefore, represent it as an HTML **definition list**. (see next couple slides)
- Consider applying styles to your definition list to make it look snazzy.

Exercise 4: example

These are snippets of the page, showing a favorite movie:

My Favorite Movies

(I actually don't watch too many movies, so...here goes!)

1. The last 30 minutes of Forrest Gump (IMDB)
   Director
   Robert Zemeckis
   Genre
   Comedy / Drama / Romance (more)
   Tagline
   The world will never be the same once you've seen it through the eyes of Forrest Gump.
   Plot Outline
   Forrest Gump, while not intelligent, has accidentally been present at many historic moments, but his true love, Jenny, eludes him. (more)
2. Star Trek Episode V with Zazu (IMDB)
3. Fight Club (not really, but I've seen like 3 movies total so this is my 3rd fave by technicality) (IMDB)

Definition list: <dl>, <dt>, <dd>

dl: represents a list of definitions of terms

dt: represents each term; dd: its definition

```html
<dl>
    <dt>newbie</dt> <dd>one who does not have mad skills</dd>
    <dt>own</dt> <dd>to soundly defeat (e.g. I owned that newbie!)</dd>
    <dt>frag</dt> <dd>a kill in a shooting game</dd>
</dl>
```
HTML

newbie
    one who does not have mad skills
own
    to soundly defeat (e.g. I owned that newbie!)
frag
    a kill in a shooting game

output

Exercise 5 (challenge only): Decrementing ol

(See example screenshot on next slide.)

The last problem on each week's lab will be for "challenge" (hackers) only. The challenge problem will always be very tricky, and you aren't expected to finish it. Give it a try if you succeed at solving all of the other exercises!

◦ Modify your page's Top 3 movies/shows list to be in decreasing order, from 3 down to 1.

◦ The list must look the same as the default ordered list format, but in reverse order.

◦ The only change you may make to your HTML is to switch the order of your list items, but otherwise all work should be done by CSS.

◦ You won't find how to do this in the slides; you must figure it out on your own by searching the web.

Exercise 5: example

These are snippets of page with a decrementing ol:
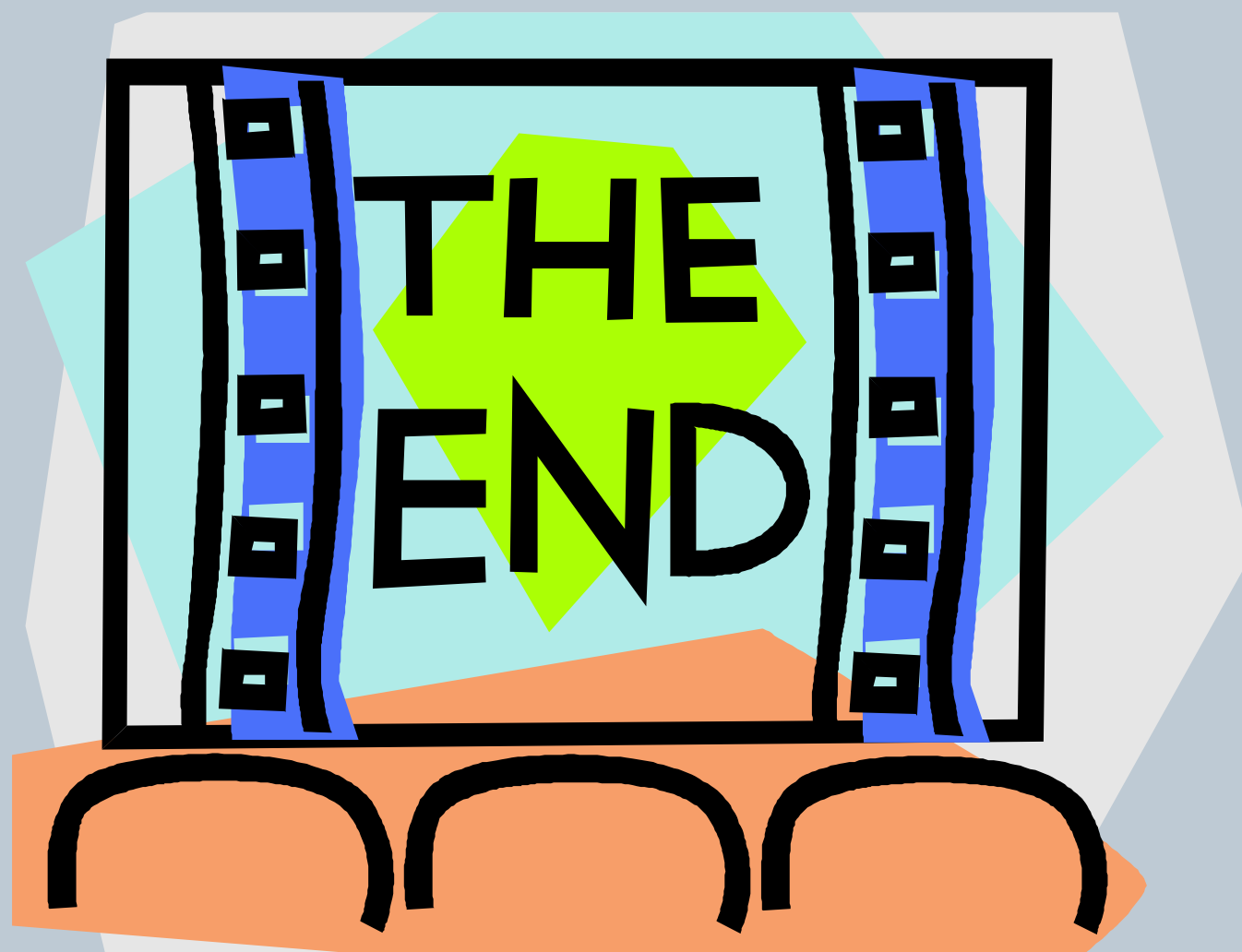
If you finish them all…

If you finish all the exercises, you can add any other content or styles you like to your page.

If the lab is over or almost over, check with a TA and you may be able to be dismissed.

Once the lab time is up, you may stop working. You don't need to complete the remaining exercises unless you want to for fun.

Great work!

Thank you for your attention!