CSE3026: Web Application Development

Lab 3: CSS Design & Layout

Software Engineering Lab

Lab 3 exercises

Lab 3: CSS Design & Layout - style “Weekly Plan” page.

1. Arrange Your Page into Sections
2. Spacing With Padding and Margins, Backgrounds
3. Float, Alignment and Overflow
4. Cosmetic Finishing Touches
5. 2nd Column, Related Links
6. Green Highlights
7. Semantically Meaningful Tags
8. Validate Your Style
9. Upload Your Files

Ex 1: Arrange Your Page into Sections

(See example screenshot on next slide)

First download the weeklyplan.html file. Then open it in your Textpad++ editor, and also open the HTML page on your hard drive in Firefox or Chrome. Add ids, classes and divs to ogranize the "weeklyplan" page. Then, add borders around these sections by creating and editing your layout.css.

- The borders are all 5px thick and solid.
- The colors are the pre-defined HTML color names, e.g. the red border is the HTML color red.
- Hint: To reduce the needed id and class attributes, consider using CSS context selectors.

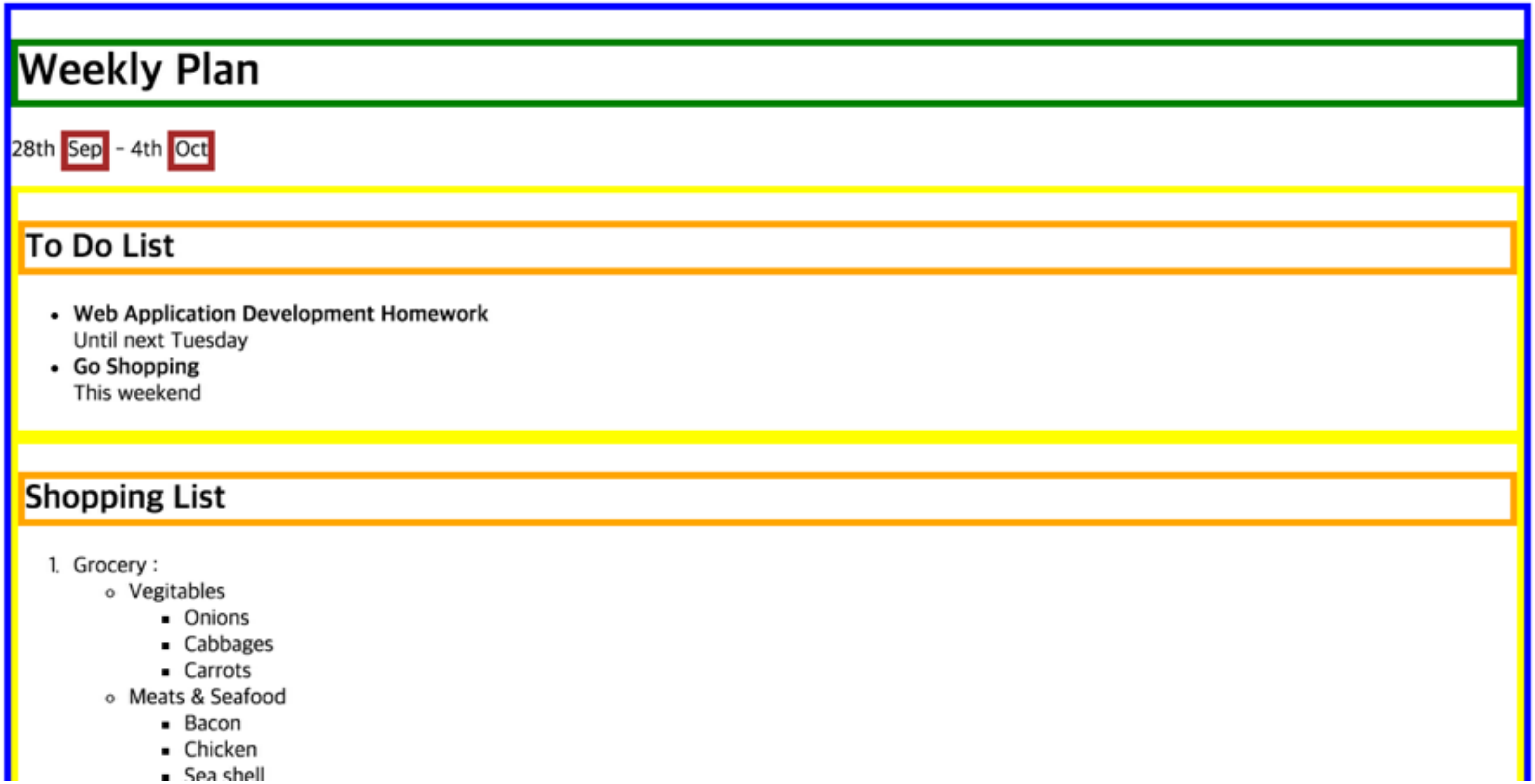
The only major changes to make to the HTML are adding ids, classes, and divs.

- Don't remove any element in template file.
- When you add div to template page, you should use the format on page 56 of the Page Layout Lecture Slide.
- But you can add divs to wrap elements in the favorite style section.

Ex 1: output

Your page should look like this when you are done:

full screen shot



Weekly Plan

28th Sep - 4th Oct

To Do List

- **Web Application Development Homework**
  Until next Tuesday
- **Go Shopping**
  This weekend

Shopping List

1. Grocery :
   - Vegitables
     - Onions
     - Cabbages
     - Carrots
   - Meats & Seafood
     - Bacon
     - Chicken
     - Sea shell

Ex 2: Padding, Margins, Backgrounds

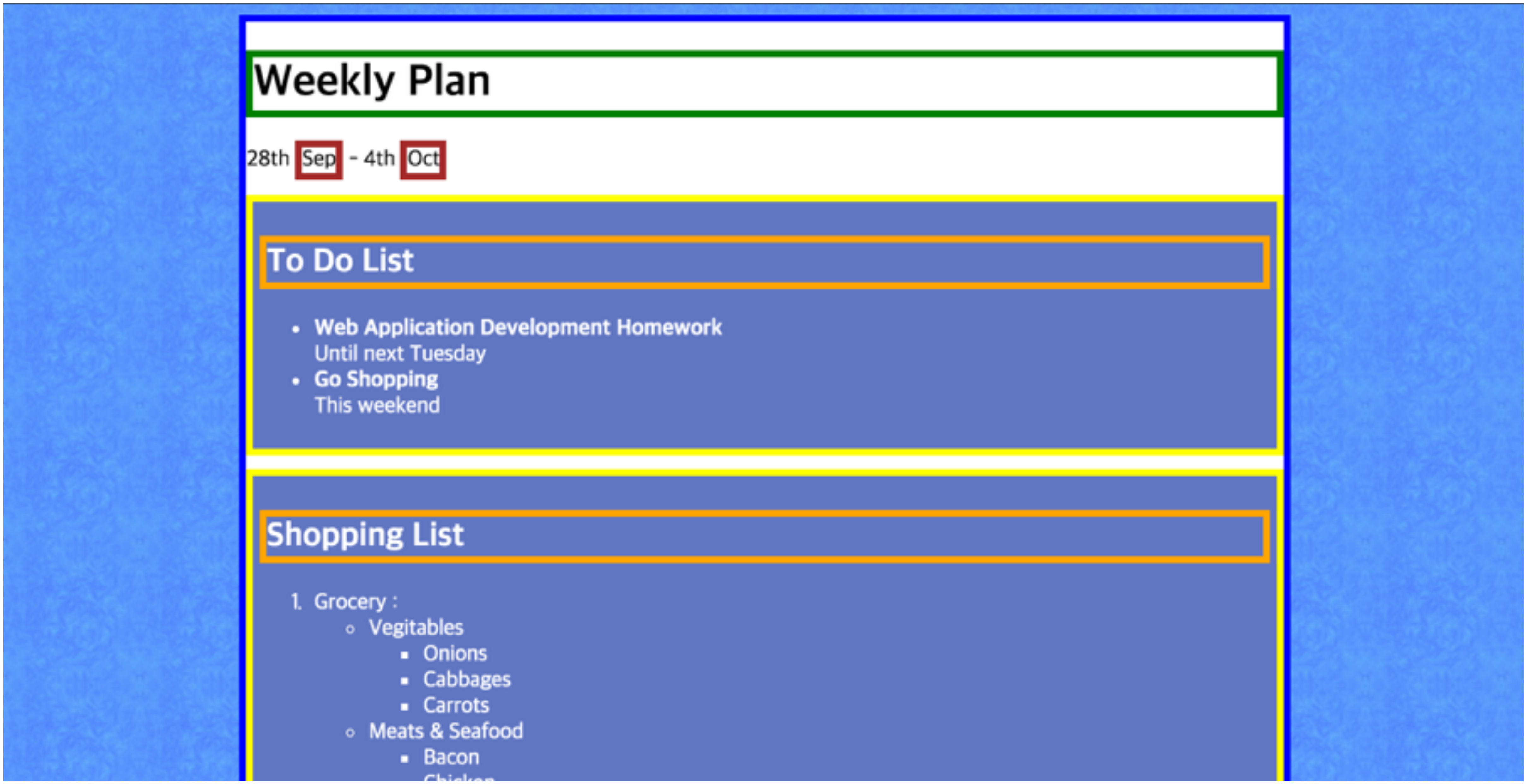
(See example screenshot on next slide)

Add padding, margins, and backgrounds to the page. Change only your layout.css file.

- The box with the blue border should have a background color of white.
- The boxes with the yellow borders should have a background color of #6277C3 and a font color of #FFFFFF(white)
  - It should have a padding of 5px (on all sides) and margin of 10px only on the top of the box.
- The overall page content area should become centered on the page, should have left and right margins of 15%, and the following background image:
  - http://selab.hanyang.ac.kr/courses/cse326/2015/problems/images/3/blueTextureBG.jpg

Ex 2: output

This output is weeklyplan page with padding/margins and backgrounds:



Weekly Plan

28th Sep - 4th Oct

To Do List

- **Web Application Development Homework**
  Until next Tuesday
- **Go Shopping**
  This weekend

Shopping List

1. Grocery :
   - Vegitables
     - Onions
     - Cabbages
     - Carrots
   - Meats & Seafood
     - Bacon
     - Chicken

Ex 3: Float, Align, Overflow

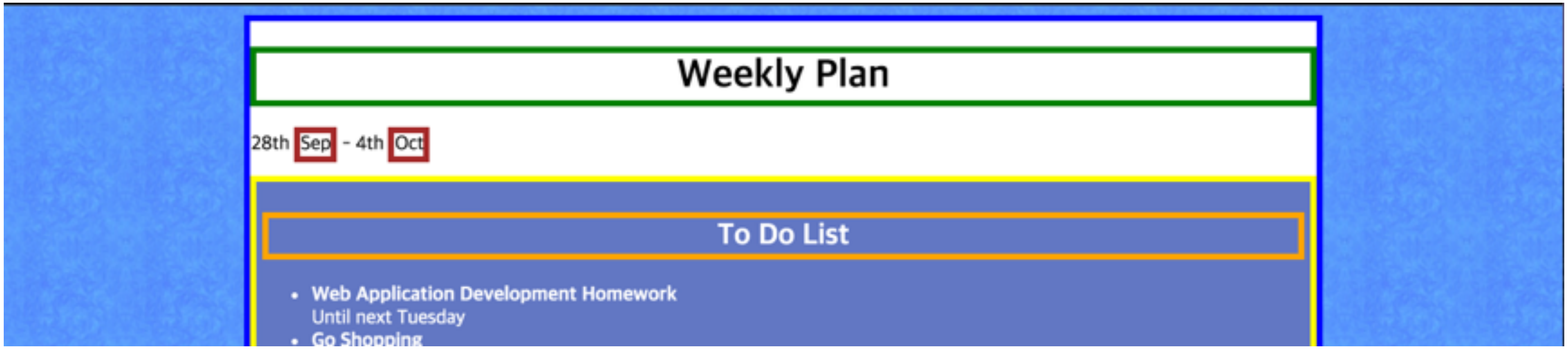
(See example screenshot on next slide)

Now we'll practice float, overflow, **and** alignment. **You may have to edit** weeklyplan.html **code as well as** layout.css.

- The heading text in the green box should appear on the center of that section of the page.
- The purple boxes should wrap only image and surrounding text in a row. They should stay within the bounds of the my favorite style section; that is, it should not bleed into the other content below it.
  - (Hint: If your boxes are not tall enough to fit the floating elements inside them, see the page 39 - 40 of the Page Layout Lecture Slide.)
- The heading text in the orange box should appear on the center side of that section of the page.

Ex 3: output

This output is weeklyplan page with floating and alignment:

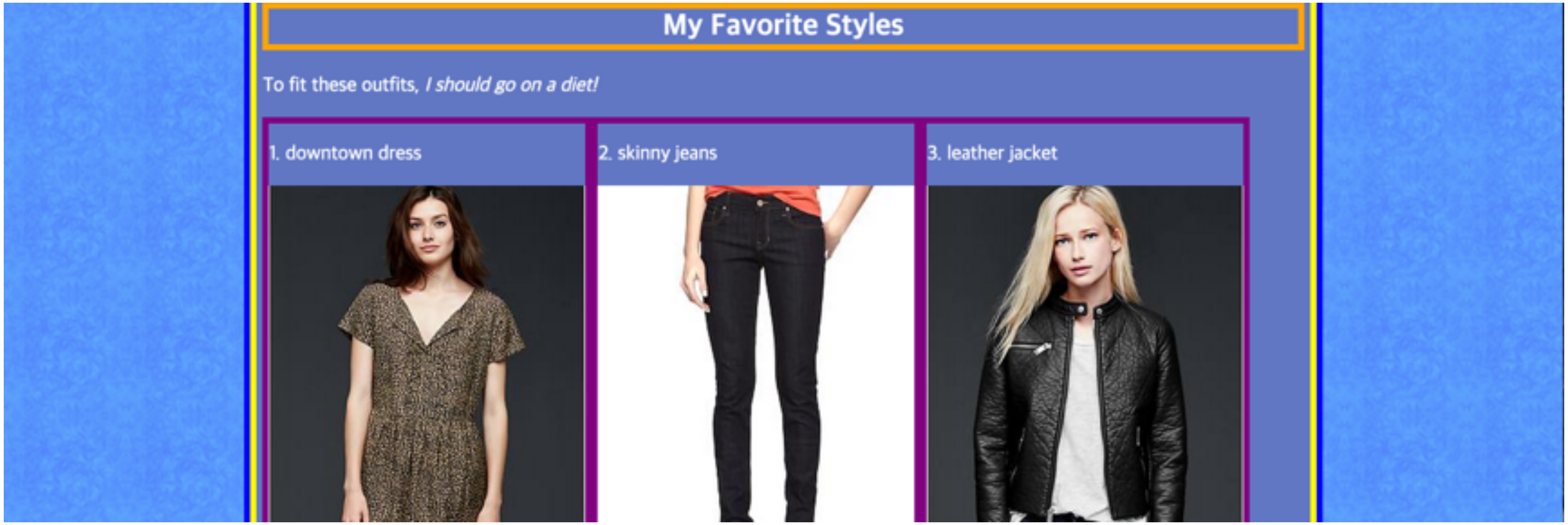


Weekly Plan

28th Sep - 4th Oct

To Do List

- **Web Application Development Homework**
  Until next Tuesday
- **Go Shopping**



My Favorite Styles

To fit these outfits, *I should go on a diet!*

1. downtown dress

2. skinny jeans

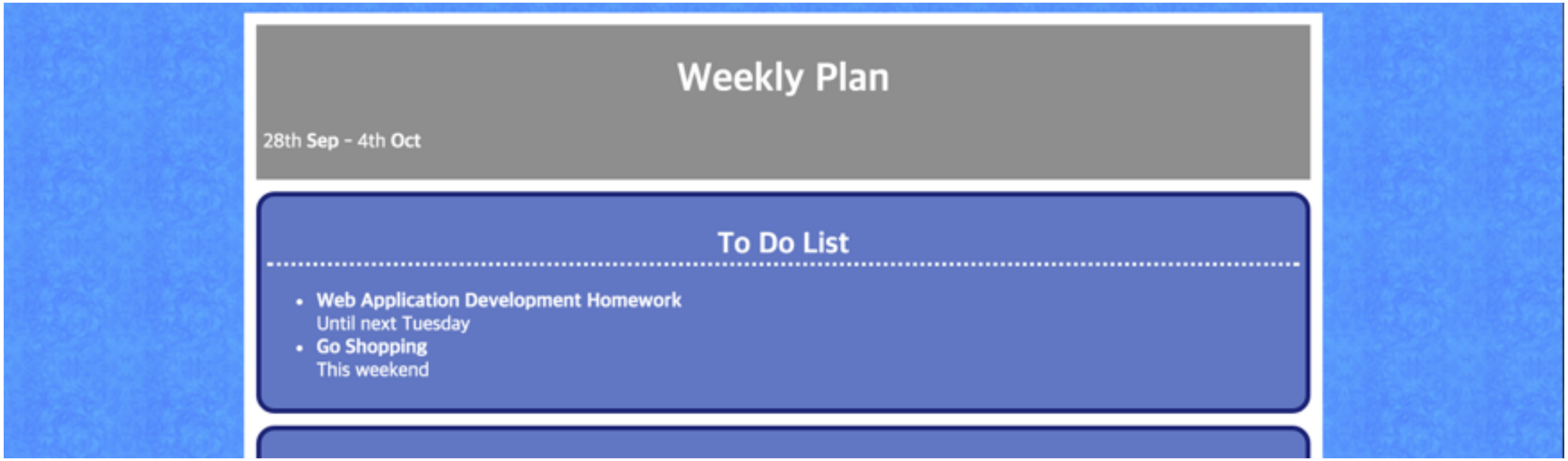
3. leather jacket

Ex 4: Finishing Touches

(See example screenshot on next slide)

- Change the box with the blue border to have a dashed, white, 10px-thick border.
- Change the boxes with the yellow border to have a solid, 4px-thick border, in color #1D2475, with a 15px rounded border radius.
- Change the box with the orange border to have only a bottom border: white, dotted, and 3px-thick.
- Change the upper area containing green box and brown boxes to have a background color of #8E8E8E, change font color to white, change text in the brown boxes to bold, and get rid of borders of green box and brown boxes.
    - It should have a padding of 5px (on all sides).
- Change the boxes with the purple border to have a background color of white, text color of black, align text to center, and get rid of the borders.
    - It should have a margin of 5px (on all sides).

Ex 4: output

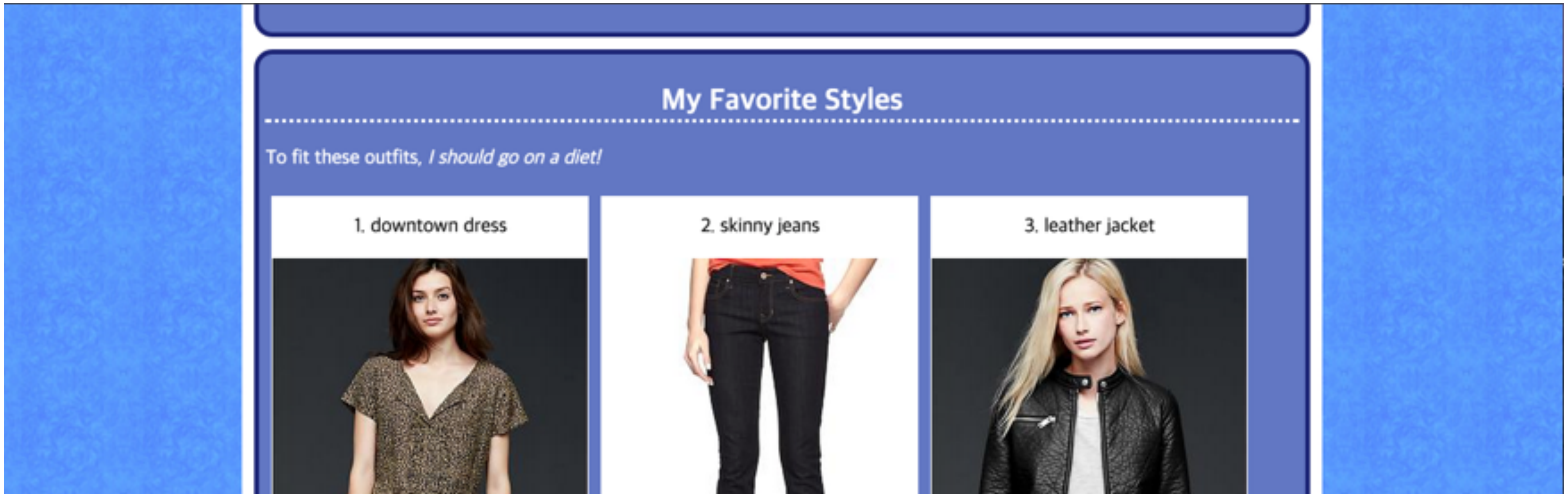


Weekly Plan

28th **Sep** - 4th **Oct**

To Do List

- **Web Application Development Homework**
  Until next Tuesday
- **Go Shopping**
  This weekend



My Favorite Styles

To fit these outfits, *I should go on a diet!*

1. downtown dress

2. skinny jeans

3. leather jacket

Ex 5: 2nd Column, Related Links

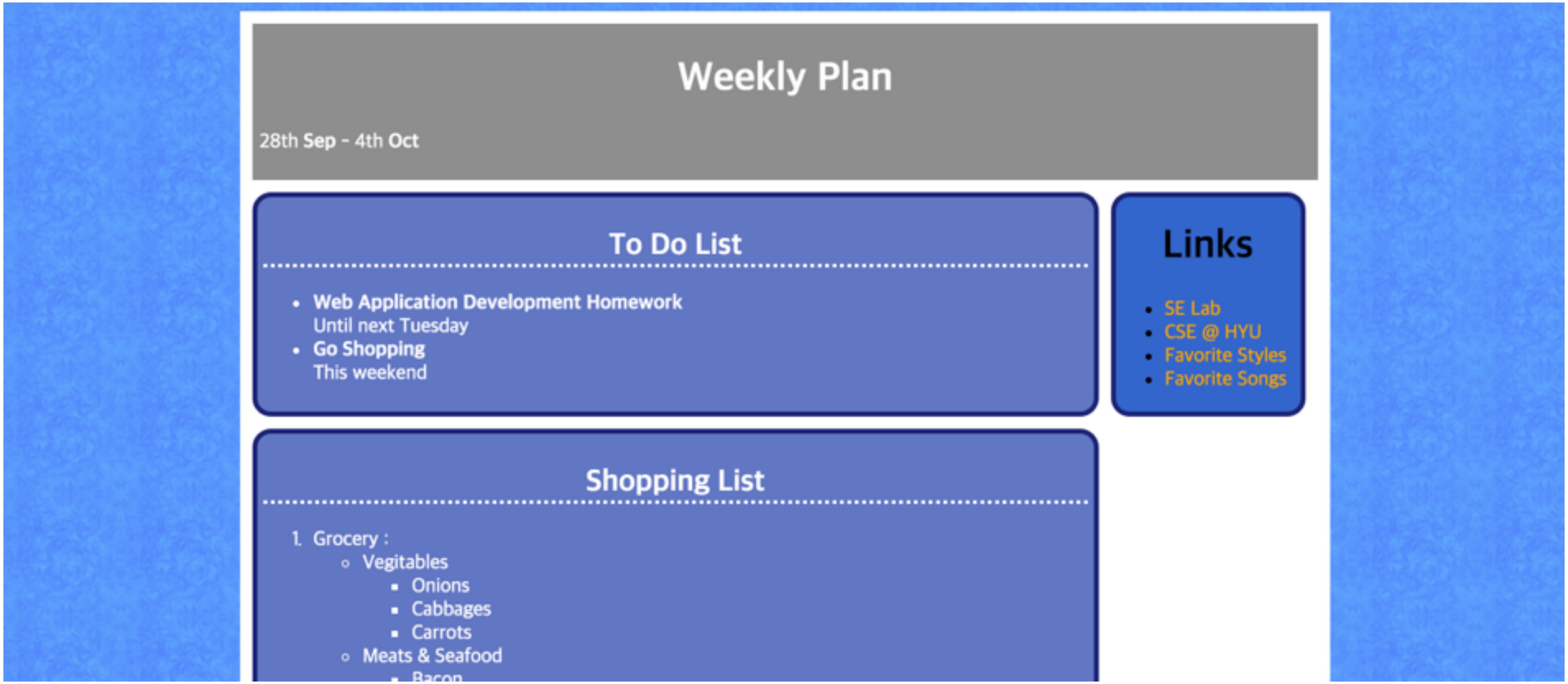
(See example screenshot on next slide)

Add a second column to the layout. Second column has followings :

- heading : Links
- links : SE Lab., CSE @ HYU, Favorite Styles, and Favorite Songs.
  - SE Lab. and CSE @ HYU are links to go each homepage.
  - Favorite Styles and Favorite Songs are links to go each section on your page.
- Use the appropriate layout-related tags/attributes and CSS to make this list into a second, right-aligned column as shown in the screenshot on next slide. The colors, borders, etc. of the list are not important; the focus is on the layout.
- The layout with a first column must still be a liquid layout -- that is, all parts of it should adjust in size accordingly when the browser size changes.
- Hint: The second column should be 150px wide with #3366CC background color. In addiiton, there should be 10px space between two columns.

Ex 5: output

This output is weeklyplan page with the related links list:



Weekly Plan

28th Sep - 4th Oct

To Do List

- **Web Application Development Homework**
  Until next Tuesday
- **Go Shopping**
  This weekend

Links

- SE Lab
- CSE @ HYU
- Favorite Styles
- Favorite Songs

Shopping List

1. Grocery :
   - Vegitables
     - Onions
     - Cabbages
     - Carrots
   - Meats & Seafood
     - Bacon

lab(se);

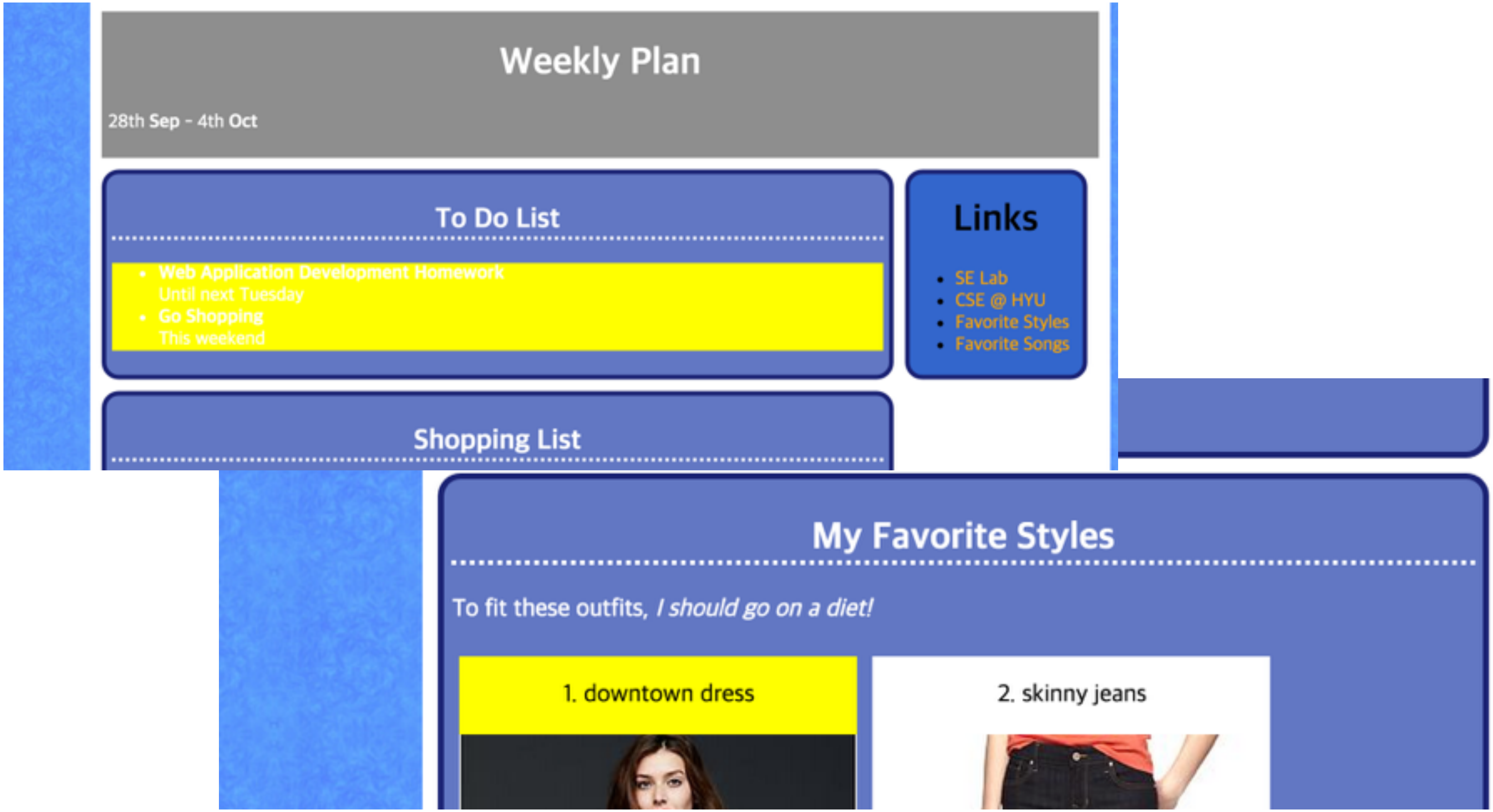
Ex 6: Yellow highlight

Style your CSS so that if you hover over any element (i.e. any header, paragraph, image, etc), the element is highlighted in #ffff00 color.

Complete this exercise by adding one-selector with one-property to your stylesheet (no commas in selector are allowed!). Search Google to find out How can one rule apply to all elements.

Ex 6: output

This output is weeklyplan page with yellow highlight:



Weekly Plan

28th Sep - 4th Oct

To Do List

- Web Application Development Homework
  Until next Tuesday
- Go Shopping
  This weekend

Links

- SE Lab
- CSE @ HYU
- Favorite Styles
- Favorite Songs

Shopping List

My Favorite Styles

To fit these outfits, *I should go on a diet!*

1. downtown dress

2. skinny jeans

Ex 7: Semantically Meaningful Tags

The new HTML5 introduces more semantic (and descriptive) tags than div and id/class.

- **Change** div **and** id/class **tags in your** weeklyplan.html **to HTML5 semantic tags where possible. Then save the html as** semanticWeeklyPlan.html**.**
- **Make necessary changes to** layout.css **and save it as** semanticLayout.css**. Then, link semanticLayout.css to** semanticWeeklyPlan.html **instead of old** layout.css**.**
- **Compare** weeklyplan.html **and** semanticWeeklyPlan.html **in your browser and check whether they have the same style and layout.**

Ex 8: Validate your style

Validate the syntax of your CSS code:

1. open http://jigsaw.w3.org/css-validator/
2. validate your page by either
   - “Validate by File Upload” and then browse to your layout.css file
   - “Validate by Direct Input” and then copy.paste your code into the text box
3. If there are any errors, fix them all
   - try to get the green bar for 0 errors. “Warnings” are ok
   - if you do not understand the error messages, ask TA for help

Ex 9: Upload your page

- Use MAMP and upload your page to your Apache root directory
  - Put your files in a folder named lab3 within your htdocs folder
- Check the page by viewing it in the web browser. Its URL should be:
  - http://localhost/lab3/weeklyplan.html

If you finish them all…

If you finish all the exercises:

1. you can add any other content you like to your page
2. check in with a TA to get credit for your work
3. you may be able to be dismissed

If you don’t finish all the exercises on time:

1. **upload your files to gitHub** at least 16:55
2. you can get some marks from your uploaded files
3. you **can’t get any marks** if you submit result after 17:00 Wednesday

Great Work!