

# Tongji University, Web Programming

## Homework Assignment 1: Recipe

This assignment tests your understanding of basic HTML and CSS. You will create several files related to a recipe web site for a fictional pie company named Granny's Pies. Turn in the following files:

- **index.html**, the first of two web pages (with an optional CSS style sheet file); *appearance is up to you*
- **pie.html**, the second of two web pages; *must match a particular specified appearance*
- **recipe.css**, the style sheet for **pie.html**

For full credit, your files must match the guidelines in this document.

### ***Index Page:***

The first part of your task is to create a front page for this web site, stored in a file named **index.html**. Your front page must contain a link to **pie.html**. The file must also be at least 20 lines long and must contain at least 4 different HTML elements in its body. It also may not significantly borrow content from your **pie.html**. Otherwise, this front page can have any appearance you like. If you like, you may use an optional CSS file with this page named **index.css** and submit it with your other files. Be creative! We may show some students' pages in class.

### ***Pie Recipe Page:***

The second part is to recreate a specific web page of a recipe for lemon meringue pie, stored in a file named **pie.html**. Unlike **index.html**, this page must exactly match the appearance specified in this document.

You must match in appearance the pie web page shown on the **next page** of this document. The width of the screenshot below is based on a browser window width of 1024px; if your screen is a different size, the width of your page may not exactly match. (*Firefox's Web Developer Toolbar add-on can help you resize your browser to any dimension; you could use 1024x768 to compare the images.*) Any line breaks shown are done automatically by the browser, except ones that are clearly much narrower than the page width, such as the line "One 9-inch pie".

### ***Provided Output Text:***

You **don't need to type in all of the text** of the pie web page, only the HTML tags. There is a **provided text file** (skeleton.txt) on the course server that you can copy and paste into your text editor to get started. Then you can add the appropriate HTML tags to the file and save it as your **.html** page.

### ***Appearance and Behavior Details:***

The pie web page's title text should be **Grandma's Lemon Meringue Pie**.

All **headings** on the page should use a foreground color of #A4A400 (red=164, green=164, blue=0) and a background color of #F0F0F0 (red=240, green=240, blue=240). The font families for headings are: Lucida Sans Unicode, Helvetica, Arial, or any sans-serif font available on the system (in that order). The page's main heading

is aligned to the center of the page body, and uses a 22pt bold font. Other headings on the page are left-aligned and appear in an 18pt normal font. All headings should be underlined.

The overall page's **body** should have a white background. Text in the body should have a foreground color of #404040 (red=64, green=64, blue=64) and use an 11pt font. The **font** families for page text are Georgia, Garamond, or any serif font available on the system. Any links on the page should use the color #A4A400 (red=164, green=164, blue=0), matching the color of the page headings.

In the Ingredients list, the underlined words "tbsp" and "tsp" are **abbreviations** for "tablespoons" and "teaspoon" respectively. When the user hovers the mouse over these abbreviations, the full word should appear as a tooltip.

At the end of the Directions, the **deleted word** "cake" with a strike-out line through it is replaced by the word "pie".

After the Links section there is a short **copyright notice** that appears as a section of **pre-formatted text** in a monospace font. The text is spaced such that the second line is indented by 2 spaces and the third line by 4 spaces.

The names of the four major steps of the **recipe directions** (such as "Preheat Oven") are strongly emphasized. The **quotations** from the users appear in an italic font as indented blocks with background color #FFFA8 (red=255, green=255, blue=168). Some words in the last quote are bolded for emphasis.

The picture of the pie and the W3C validator **images** at the bottom come from the following images, respectively. All images are located at the base URL of <http://sse.tongji.edu.cn/liangshuang/wp/images/>. Use an **absolute URL** to link to each image; don't link to a relative URL on your hard drive.

- [pie.jpg](#)
- [w3c-html.png](#)
- [w3c-css.png](#)

The page bottom has four **links**. The "Home" link should go to your [index.html](#) page. Use a relative URL and assume it is located on the same site and directory as [pie.html](#). The "Search for other lemon meringue pie recipes" text, "W3C HTML5" button, and "W3C CSS" button should link to the following web pages, respectively:

- <http://www.google.com/search?q=lemon+meringue+pie+recipe&start=10>
- <http://validator.w3.org/>
- <http://jigsaw.w3.org/css-validator/>

All other decisions about styling on the page are left to the web browser. Any styles mentioned previously that are the same as browser defaults do not have to be explicitly included in your CSS style sheet. The screenshot in this document was taken on Windows using Firefox, which may differ from the appearance on your system.

There are some good HTML and CSS references such as the following sites:

- <http://www.w3schools.com/tags/default.asp>
- <http://www.w3schools.com/cssref/default.asp>

## ***Implementation and Grading:***

For full credit, your HTML and CSS should follow good and clean styles. Choose appropriate HTML tags to match the structure of the content on the page. Do not express style information in HTML with inline styles or presentational tags such as **b** or **font**. **Do not use any HTML tables in your [pie.html](#).**

Your [pie.html](#) page must also **pass the W3C HTML validator with no errors** (a **green** bar). (*Your page is fine as long*

as you see the green bar and text "This document was successfully checked as HTML!") We will click your W3C validation buttons to validate your page, so test them for validity by clicking those same buttons.

You only need to worry about your page's appearance in standards-compliant browsers such as Firefox or Chrome. You will not be tested in Microsoft Internet Explorer or other browsers that do not comply to web standards.

Express all stylistic information on the page using **CSS** defined in [recipe.css](#). For full credit, your style sheet must successfully pass the W3C CSS validator. Part of your grade comes from expressing your CSS concisely and without unnecessary or **redundant** styles. For example, if the page uses the same color or font family for multiple elements on the page, you must group those elements into a single CSS rule, so that it would be possible to change the page's color/font by modifying a single place in the CSS file. Outside of required features, do not use HTML or CSS constructs that have not been discussed in lecture or the slides.

Though they will not be discussed until after the homework is assigned, you may know about using HTML **class** and **id** attributes to target elements for styling. Do not overuse such attributes in your HTML unnecessarily. If there is already a suitable tag for representing a given piece of content, favor the use of that tag rather than a less appropriate tag with a **class** or **id** attached for styling purposes.

**Format** your HTML and CSS nicely so that it is as readable as possible, similarly to the examples shown in class. Also place a comment header in each file containing your name and a brief description of the assignment and the file's contents. You must properly use whitespace and indent your HTML and CSS code following examples shown in class. To keep line lengths manageable, do not place more than one block element on the same line or begin any block element past the 100th character on a line. For reference, our solution has 135 lines of HTML and 45 lines of CSS, though you do not need to match this exactly.

The majority of the points will be for [pie.html](#) and [recipe.css](#). The [index.html](#) will also be graded, but it will be worth few points. The main style constraint on [index.html](#) is that it should pass the W3C HTML and CSS validators. Beyond that it can contain any interesting content you like, even using material we have not yet learned in lecture. Please do not link to external resources (other than image files or CSS) from your [index.html](#) page.

Submit your assignment online to the course site. Turn in both [.html](#) files and your [.css](#) style sheets. You do not need to turn in the provided images. If your [index.html](#) page includes images linked using absolute URLs, you do not need to turn in those images.

Please do not place a solution to this assignment online on a publicly accessible web site, neither during nor after the school quarter is over. Doing so is considered a violation of our course academic integrity policy.

## Grandma's Lemon Meringue Pie



One 9-inch pie  
30 Min - Prep time  
10 Min - Cook time  
40 Min - Total  
8 Servings

### INGREDIENTS

- 1 cup white sugar
- 2 tblsp all-purpose flour
- 3 tblsp cornstarch
- 1/4 tsp salt
- 1 1/2 cups water
- 2 lemons, juiced and zested
- 2 tblsp butter
- 4 egg yolks, beaten
- 1 (9 inch) pie crust, baked
- 4 egg whites
- 6 tblsp white sugar

### DIRECTIONS

1. **Preheat Oven:** Preheat oven to 350 degrees F (175 degrees C).
2. **Make Lemon Filling:** In a medium saucepan ...
  - Whisk together 1 cup sugar, flour, cornstarch, and salt.
  - Stir in water, lemon juice and lemon zest.
  - Cook over medium-high heat, stirring frequently, until mixture comes to a boil.
  - Stir in butter.
  - Place egg yolks in a small bowl and gradually whisk in 1/2 cup of hot sugar mixture.
  - Whisk egg yolk mixture back into remaining sugar mixture.
  - Bring to a boil and continue to cook while stirring constantly until thick.
  - Remove from heat.
  - Pour filling into baked pastry shell.
3. **Make Meringue:** In a large glass or metal bowl ...
  - Whip egg whites until foamy.
  - Add sugar gradually, and continue to whip until stiff peaks form.
  - Spread meringue over pie, sealing the edges at the crust.
4. **Bake:** Bake in preheated oven for 10 minutes, or until meringue is golden brown.

This is our favorite recipe here at Granny's Pies. It has been enjoyed by pie fans for many years. It's Granny's favorite! We hope you'll find that this recipe is delicious and also easy to follow; it's a piece of ~~cake~~ pie!

### USER COMMENTS

*This is a very fun recipe to follow, because Grandma makes it sweet and simple. This pie is thickened with cornstarch and flour in addition to egg yolks, and contains no milk.*

- Emilie S.

Q: What do you call an ape who loves pie?

A: A meringue-utan.

- Vickie K.

*This site can really **engage** my interest. Follow the recipe above and **make it so!** This pie is **number one**.*

- Jean-Luc Piccard

### LINKS

[Search for other lemon meringue pie recipes](#)  
[Home](#)

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