

Course 12-780

Advanced Python and Web Prototyping for Infrastructure Systems

Fall 2017

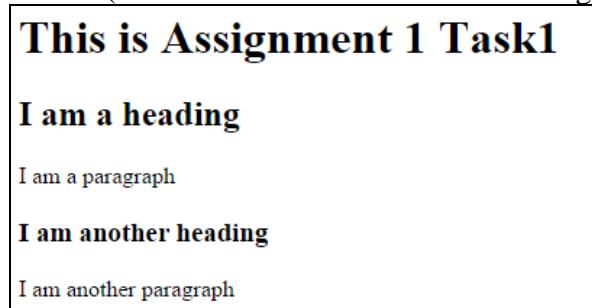
**Assignment 1 (Total: 8 points)**

**Due: Tuesday, Nov. 7<sup>th</sup>, by Canvas by end of the day.** For each day the assignment is late, a penalty of 10% of your total grade will be deducted.

**Task 1 (3.5 points)** *HTML design*

**Please download the Task1.html file from the assignment.**

- a. There are already 2 headings and one paragraph in this page. Please add another heading and paragraph so that the webpage will look like the following (0.5 pt):  
(Note that the font of the new heading is smaller than the 2<sup>nd</sup> heading)



- b. Please add an image link to the top of the webpage. The URL for the image is [http://www.cmu.edu/marcom/brand-standards/images/logos-colors-type/CMU\\_wordmark\\_1500px-min.png](http://www.cmu.edu/marcom/brand-standards/images/logos-colors-type/CMU_wordmark_1500px-min.png). The link should be pointing to CMU site <http://www.cmu.edu/>. Change the width of the image to 400px. (0.5 pt)



- c. Add a table with three rows and two columns, as shown in the following image:  
(1 pt) Note: The first row occupies two columns. There is also a border of the table.

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## This is Assignment 1 Task1

### I am a heading

I am a paragraph

### I am another heading

I am another paragraph

Schedule of the class	
Tuesday	Thursday
HTML and CSS (2)	javascript (1)

- d. Add a <div> tag to include the heading, paragraph and table that you created in task 1.a and 1.c. Use an **inline style** attribute to change the background color of the div to black, and font color to white. (1.5 pt)  
**Note:** font color of the table may not be changed together with the <div>. Think about how to specify the style for it.

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## This is Assignment 1 Task1

### I am a heading

I am a paragraph

### I am another heading

I am another paragraph

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## Task 2 (4.5 points) *Powerful CSS*

- Extract all the inline styles defined Task 1.d to a *style.css* file, and link the style with the tags using the id attribute of the tag. For example, if you have an inline style attribute for the `<div>` tag, please create an id attribute for this `<div>` tag and then use the id to specify the style in the *style.css* file. Make a copy of what you have done in *Task1.html* and rename it to *Task2.html*. Link this *style.css* file in the *Task2.html*. The inline styles should be removed. The webpage should still look like Task 1.d (1 pt)
- Using the CSS items can create good look and feel for GUI components like buttons. Please copy the following line after the `<div>` element in Task2.html file.

```
<div class="Button">Button 1</div>
```

Copy the following lines to the style.css file. The position, left and top attributes place this div to the right top corner of the page.

```
.Button{  
    position: absolute;  
    left: 600px;  
    top: 30px;  
}
```

Now you should be able to see a text “Button 1” showing at the right top corner of the webpage.

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Button 1

## This is Assignment 1 Task1

### I am a heading

I am a paragraph

### I am another heading

I am another paragraph

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This text does not look like a button yet. But we can change the look and feel by changing the attribute like border-radius, color, and so on, to make it looks like this:

Please write the CSS style to implement the button class styles looking like the example below (1.5 pt):

**Note: The background color is #337ab7, which is a hex coding for RGB color.**



- c. The state “*hover*” can be used to specify the style attribute when mouse cursor is over the HTML tag. Please create a “*hover*” style definition for the Button class and change the background color to black.

We also saw examples of the CSS transition, which can create simple animations for the attribute value change. Please specify a transition for the Button class so that when the background color is changed, it will take 3 seconds to finish the entire transition. (2 pt)