**Problem 3: HTML/CSS**  
  
1. At a high level, what is the purpose of HTML and CSS? How do the two differ?  
  
HTML is a markup language that is used by the document object model (DOM) to structure the contents of a Web page in a  hierarchical form based on attributes such as  doctype, html, head, and body.   I can think of HTML as the “skeleton” of a Web page that helps to give a structure to the content when a given page is being rendered in a browser.  CSS is configuration layer that gives content style and appearance to the HTML and Web page. They both differ in their purpose and they are independent each other. In fact, HTML is markup language while CSS is a presentation language that employs selectors to apply styles to HTML elements  
  
2. What is the purpose of assigning a "class" to an HTML element? What is the difference between a "class" and an "id"? How would one select a division (div) element with class "box" using CSS?  
  
The purpose of assigning a “class” to HTML elements is to apply the same style to group or set of HTML elements in a page. In a way, the “class” works as an identifier that associates a group of HTML elements.  
  
An “id” is a unique identifier associated with an HTML element. They are used to target a specific and only one element in the HTML at a time.  
  
We would select a division (div) element with class ”box” as follows:  
div.box{  }  
  
3. List 5 different HTML elements and provide a short description of the function of each.  
  
**html**- This tag  informs the browser that the page to be rendered is an HTML doc. header –   This tag specifies a header for a HTML document and is used as a container for introductory content or set of navigation links such as style sheets.  
**embed** – This tag defines a container for an external application such as a plug-in for  interactive content  
**iframe** – This tag is an inline frame that is used to embed another document within the HTML document.  
**Thead**: - This tag is used to group header content in an HTML table  and is used in conjunction with the tbody and tfoot elements specifying each part of a table.  
**Div** – This tag acts as a container for different content positioned in different areas of the Web page with applied targeted CSS styles to define layouts.  
  
  
4. What is the difference between margin and padding?  
  
The margin property sets the length of space surrounding a given element. They fall outside any border to help keep a distance with other elements.  In contrast padding is used to provide spacing within a given element by setting the “padding” property.  
  
5. Consider the Gmail Inbox interface. How is the site functionally divided? Create a nested list representing this functional division. Don't worry about extremely fine details; this should help you start:  
  
page  
  top bar  
      links to various Google sites:  
          You  
          Search  
          Images  
          Maps  
          Play  
          YouTube  
          News  
          Gmail  
          Drive  
          Calendar  
          More  
  header bar  
      left side  
          Google logo  
          search bar  
          search button  
          users email address  
   gmail bar  
       left side  
            Gmail pull down menu for contacts, task  
            Select email  pull down menu  
            Refresh button  
            More button  
       right side  
            page range number sections  
            Oldest email button  
            Newest email button  
            Settings pull down menu   
  
    main body page section  
       left side  
           Compose button  
           Inbox   
           Important  
           Sent Mail  
           Drafts  
           Notes  
           More  
           Visibility options,  call phone  
           Search people  
           Contacts  
           Chat  
      right side  
            Top ads and advertisements bar,      
            Select email check box, No stared star button, teach important button,  sender email, ->  
                  subject, hour/time email sent  
             Bottom adds and advertisements bar  
             account storage capacity settings,  copyright and terms,  last account activity    
             Details