

### 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 stored star button, teach important button, sender

email, ->

subject, hour/time email sent

Bottom ads and advertisements bar

account storage capacity settings, copyright and terms, last account activity

Details