

Short Answer:

Answer the following questions with complete sentences in **your own words**. You are encouraged to conduct your own research online or through other methods before answering the questions. If you research online, please consult multiple sources before you write down your answers.

1. What is HTML?

HTML stands for HyperText Markup Language. It is considered the skeleton of the webpage because it defines the structure of the web content

2. What is block element? How is it different from inline elements?

Block element are any tag that start a new line. It is different from inline elements because inline element doesn't start a new line.

3. What is the importance of the meta tag?

Meta tag is important because it defines information and data for the HTML. Because of this, it helps with charset, name, and content of the HTML file

4. What would happen if you clicked on a link created using ``?

It will return undefined

5. What is iframe?

Iframe is used to display a web page within a web page.

6. What is CSS?

CSS stands for Cascading Style Sheet. It is the skin of the webpage and it affects how the website is displayed

7. How do you import CSS?

You can import CSS by either External CSS where you bring a link that comes from a CSS files, Internal CSS where you define the CSS inside the style tags, or Inline CSS where you define it within a style attribute of a tag.

8. What are the different types of CSS selectors?

There are simple selector based on tag names, Combinator selectors based on relationship between child or descendant elements, pseudo-class selectors that select elements based on their state, pseudo-element selectors that select part of an element, and attribute selectors that select based on attributes or their values.

9. What are the different types of attribute selectors?

There are `[attr]:`, `[attr=value]`, `[attr^=value]`, `[attr$=value]`, and `[attr*=value]`

10. What is a pseudo-class?

Pseudo class specifies a special state of the selected element(s)

11. What is a pseudo-element?

Pseudo-element allows you to style a specific part of the selected element(s)

12. What are two ways that we can make an element invisible? What is the difference?

You can the element display equal to none and this will not take up a space

You can make visibility equal to hidden however this will take up space

13. What is SVG and why do we use it?

SVG stands for Scalable Vector Graphics. It is an XML based two-dimensional graphic file format. We use it for sharing graphics contents on the Internet.

14. What is the Box Model? Describe each part.

The Box Model is a box that wraps around every HTML element, which can be considered as a box.

Content- the main part of the element where text and images are.

Padding-the area around the context which is clear and transparent.

Border-the line that goes around the padding and content

Margin-the space outside the border and this is responsible for separating elements from each other

15. What is the difference between margin and padding?

A Margin is outside the box of the element while the padding is still inside the box of the element.

1. Can padding be negative? Can margin be negative?

Padding cannot be negative while margin can be negative

16. Assume an element has the following properties. What is the element size (width & height)? Please explain how you arrived at your solution.

width: 100px;
height: 100px;
margin: 20px 50px;
padding: 10px 10px;
border: 2px;

element size = content + padding + border + margin element size is 11104 px

$$(100*100)+(10*10)+(2*2)+(20*50)=10,000+100+4+1000=11,104$$

17. Assume an element has the following properties. What is the element size (width & height)? Please explain how you arrived at your solution.

width: 100px;
height: 100px;
margin: 20px 50px;
padding: 10px 10px;
border: 2px;
box-sizing: border-box;

border box size = content + padding + border the size is 10,104

$$(100*100)+(10*10)+(2*2)= 10,104$$

18. Assume a parent element has *width = 200px* and one child element. If the child element's width is set to 'auto', what are the values of its width, left-margin, & right-margin?

Parent width = child's content width + padding + border + margin ;

$$200px=200px+0+0+0$$

The width is 200px. The left-margin is 0 and the right-margin is also 0

19. Assume a parent element has *width = 200px* and one child element with *width=100px*. If the child element's *margin-right* is set to 'auto', what is the child element's *left-margin & right-margin* values?

Parent width = child's content width + padding + border + margin ;

$$200px=100px+0+0+100px;$$

The left margin is 0. The right margin is 100px

20. Assume a parent element has *width = 200px* and one child element with *width=100px*. If the child's *margin* is set to 'auto', what is its *left-margin & right-margin* values?

Parent width = child's content width + padding + border + margin ;

$$200px=100px+0+0+100px;$$

Both left-margin and right-margin are equal value. They both have a value of 100px

1. What is the left & right margin values if the child's width was 300px?

$$200px=300px+0+0+(-100)px;$$

Both left-margin and right-margin are equal. They both a value of -100px.

Coding Questions:

Use HTML and CSS to solve the following problems. You are highly encouraged to present more than one way to answer the questions. Please follow best practices when you write the code so that it would be easily readable, maintainable, and efficient. Clearly state your assumptions if you have any. You may discuss with others on the questions, but please write your own code.

1. Implement the following table. (Hint: colspan & rowspan)

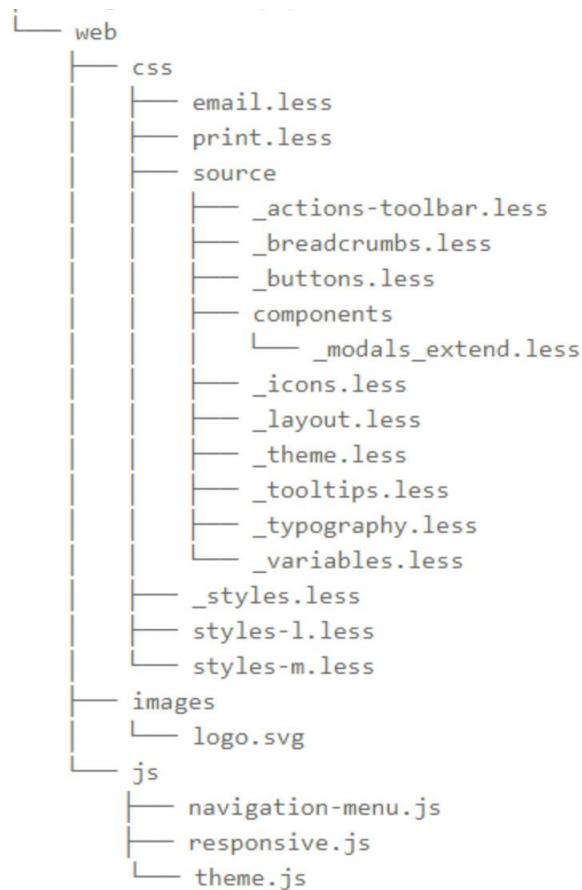
My Schedule					
	Monday	Tuesday	Wednesday	Thursday	Friday
Breakfast	In lair	with cronies	In lair	in lair	in lair
Morning	Design traps		Improve Hideout		
Afternoon	train minions	train minions	train minions	train minions	world domination
Evening	manaical laughter	manaical laughter	manaical laughter	manaical laughter	

2. Implement the following list. (Hint: pseudo classes & pseudo elements)
 - When an odd item (I,III, A,C, etc.) is hovered over, its background color should turn yellow.
 - When an even item (II,IV, B,D, etc.) is hovered over, its first character should turn red and increase in font size to 35px.

I. Background Skills	
A. Unix Commands	
B. Vim Text Editor	
II. HTML	
A. Minimal Page	
B. Headings	
C. Tags	
D. Lists	
i. Unordered	
ii. Ordered	
iii. Definition	
iv. Nested	
E. Links	
i. Absolute	
ii. Relative	
F. Images	
III. CSS	
A. Anatomy	
B. Basic Selectors	
i. Element	
ii. Class	
iii. ID	
iv. Group	
C. The DOM	
D. Advanced Selectors	
E. Box Model	
IV. Programming	
A. Python	
B. JavaScript	
V. Database	
A. Flat File	
B. Relational	

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3. Given the following directory structure and sample UI, create a simple file manager or file browser for navigating this directory. No JS is needed.
 - When the user clicks on a folder (web, css, images...), it will redirect you to a page that displays all of the folder's subfolders & files. Each of these are hyperlinks that redirect to their own HTML pages.
 - When the user clicks on a file, nothing happens.
 - Size can be any file size.
 - Date Modified can be any timestamp.
 - Icons do not need to be exactly as shown below.



1. When you first load the page.

Name	Size	Date Modified
web/		5/19/05, 7:00:00 PM

2. When you click web, it redirects you to this new page.

Name	Size	Date Modified
css/		5/19/05, 7:00:00 PM
images/		5/19/05, 7:00:00 PM
js/		5/19/05, 7:00:00 PM

3. Click css to redirect you to the new page.

Name	Size	Date Modified
source/		5/19/05, 7:00:00 PM
email.less	68 B	5/19/05, 7:00:00 PM
print.less	68 B	5/19/05, 7:00:00 PM
_styles.less	68 B	5/19/05, 7:00:00 PM
styles-l.less	68 B	5/19/05, 7:00:00 PM
styles-m.less	68 B	5/19/05, 7:00:00 PM

4. Implement the following questionnaire.
- You are only able to select one gender.
 - Users should be able to upload a file when clicking 'Attach Files'.
 - Political Persuasion (dropdown with options: Left Wing, Right Wing, Conservative)
 - Education Level Completed (dropdown with options: University/College, High School, None)

Application for permission to date my daughter

Note: Form is to be completed at least 21 days prior to date

<p>Personal Details</p> <p>Name: <input type="text" value="Enter name here"/></p> <p>Address: <input type="text" value="Enter address here"/></p> <p>Email: <input type="text" value="Enter email here"/></p> <p>Phone Number: <input type="text" value="Enter 10 digit number"/></p> <p>IQ: <input type="text" value="Enter IQ here"/></p> <p>Gender</p> <p><input checked="" type="radio"/> Male</p> <p><input type="radio"/> Female</p> <p><input type="radio"/> Other</p> <p>Date of Proposed Outing: <input type="text" value="mm/dd/yyyy"/> <input type="button" value="Calendar"/></p>
<p>Check All That Apply</p> <p><input type="checkbox"/> I have tattoos and/or piercings</p> <p><input type="checkbox"/> I am more than 2 years older than my daughter</p> <p><input type="checkbox"/> I own a panel van or V8 ute</p> <p><input checked="" type="checkbox"/> I work full-time</p> <p><input checked="" type="checkbox"/> My parents are rich</p> <p><input checked="" type="checkbox"/> Is the date at a well lit public location</p>
<p>Political Persuasion: <input type="text" value="Left Wing"/> <input type="button" value="v"/></p> <p>Education Level Completed: <input type="text" value="University"/> <input type="button" value="v"/></p>
<p>Essay Section</p> <p>In 50 words or more explain why you want to date my daughter</p> <p><input type="text" value="Enter Text Here"/></p> <p>Please upload contact details for 2 references</p> <p><input type="text" value="Enter Text Here"/></p> <p>Upload Police Clearance Certificate, Bank Statement and Medical Certifiates here: <input type="button" value="Attach Files"/></p> <p><input type="button" value="Send your application"/></p>

5. W3 schools HTML Quiz

Finish the HTML Quiz from https://www.w3schools.com/html/html_quiz.asp. Please attach the screenshot of your results.