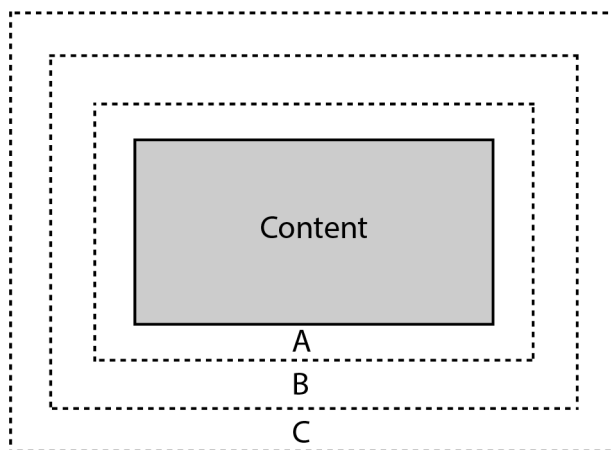


CS 260 Web Programming: Midterm 1

This exam is closed book. You may not use any notes or other resources.
Each question is worth 5 points.

The following questions refer to the HTML and CSS code listings at the end of this exam.

1. In the HTML, line 11 includes an `h1` tag. Which lines in the CSS control the style of this line?
 - (a) CSS, lines 1–3
 - (b) CSS, lines 5–7
 - (c) CSS, lines 9–11
 - (d) A and B
 - (e) B and C
 - (f) A and C
 - (g) all of the above
2. The CSS includes `#title` and `.major`. What is the difference between these?
 - (a) The class refers to CSS styles, whereas the id is used by JavaScript.
 - (b) The class can be used by more than one HTML element, whereas the id can be used by only one HTML element.
 - (c) There is no difference between them, you can use either style interchangeably.
 - (d) The class lets you use nested CSS attributes, whereas the id allows only one level of CSS attributes.



3. The figure shown above illustrates the CSS box model. If area B represents the border, which area represents the padding?
 - (a) A
 - (b) C

4. When you have an element with the following CSS:

```
1      .menu-container {  
2          display: flex;  
3      }
```

What kind of CSS feature does this create?

- (a) CSS Grid
- (b) CSS Flexbox
- (c) Bootstrap menu

The following questions refer to this code snippet:

```
1  let a = [1,2,3,4,5,6,7,8,9,10];  
2  let b = a.filter(number => { return (number % 2 === 0) });  
3  console.log(b);  
4  let total = 2;  
5  let c = a.reduce((total, number) => { return (total + number) });  
6  console.log(c);  
7  let d = [];  
8  a.forEach(number => { d.push(number * 2) });  
9  console.log(d);  
10 let e = a.map(number => { return (number - 1) });  
11 console.log(e);
```

5. What will line 3 print?

- (a) [0.5, 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5]
- (b) [2, 4, 6, 8, 10]
- (c) [1, 3, 5, 7, 9]
- (d) [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

6. What will line 6 print?

- (a) [3, 4, 5, 6, 7, 8, 9, 10, 11, 12]
- (b) 55
- (c) 57
- (d) [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

7. What will line 9 print?

- (a) [1, 2, 3, 4, 5, 6, 7, 8, 9, 10 , 1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
- (b) []
- (c) [2, 4, 6, 8, 10, 12, 14, 16, 18, 20]
- (d) [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

8. What will line 11 print?

- (a) [2, 3, 4, 5, 6, 7, 8, 9, 10, 11]
- (b) 45
- (c) [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]
- (d) [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

The following questions refer to this code snippet:

```
1  async xkcd() {
2    try {
3      this.loading = true;
4      const response = await fetch('https://xkcd.now.sh/' + this.number);
5      this.loading = false;
6      this.current = response.data;
7      this.number = response.data.num;
8    } catch (error) {
9      this.number = this.max;
10     console.log(error);
11   }
12 },
```

9. Line 4 uses `fetch`. When the browser sends this request to `xkcd.now.sh`, what does JavaScript do? Assume that it takes about a second to get the response.
- (a) Executes line 5 immediately.
 - (b) Waits until the response is received and then executes line 5.
 - (c) Sets a timer and then checks whether the request is received when the timer expires.
 - (d) Gets the DOM ready for the results.
10. If any error occurs in lines 3 through 7, the code will keep executing every one of these lines, but then will go into line 9 to handle the error.
- (a) True
 - (b) False

We could rewrite the above function using Promises:

```
1  xkcd() {
2    this.loading = true;
3    fetch('https://xkcd.now.sh/' + this.number).then(response => {
4      this.loading = false;
5      this.current = response.data;
6      this.number = response.data.num;
7    }).catch(error => {
8      this.number = this.max;
9      console.log(error);
10   });
11   console.log("Testing");
12 },
```

11. What does JavaScript now do when it sends the request using `fetch` on Line 3?
- (a) Executes line 4 immediately.
 - (b) Waits until the response is received and then executes line 4.
 - (c) Executes line 11 and then exits the function. At some later point in time, when the response is received, it executes line 4.
 - (d) Sets a timer and then checks whether the request is received when the timer expires.

12. Line 3 uses `response => {` and Line 7 uses `error =>{`. What does the arrow syntax do?
- (a) It takes the variable shown and puts it into an object.
 - (b) It tells the browser that if there is a response, it should be in JSON format.
 - (c) It defines a function that takes a single parameter.
 - (d) It creates a response for the DOM.

HTML Code

```
1 <!DOCTYPE html>
2 <html>
3
4 <head>
5   <link href="https://fonts.googleapis.com/css?family=Arvo" rel="stylesheet">
6   <link rel="stylesheet" href="/styles.css" />
7   <title>My Photography</title>
8 </head>
9
10 <body>
11   <h1 id="title" class="major">Anna's Photos</h1>
12   ...
13   <h1 class="major">Client Reviews</h1>
14   ...
15   <h1>Contact Me</h1>
16 </body>
```

CSS Code

```
1 h1 {
2   font-family: 'Arvo';
3 }
4
5 #title {
6   font-size: 16px;
7 }
8
9 .major {
10   text-transform: uppercase;
11 }
```