## BC14 - W3D1 - W2 review

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✓ Which of the following best describes the Document Object Model (DOM)?
<ul> <li>A programming language used to create websites</li> <li>A specification that defines how HTML documents should be structured</li> <li>A representation of a web page's HTML structure that can be manipulated with JavaScript</li> <li>A software library used to create user interfaces</li> </ul>
✓ Which method is used to find the first element in the DOM that matches a specified CSS selector?
<ul> <li>createElement</li> <li>textContent</li> <li>querySelector</li> </ul>
appendChild

✓ What is the purpose of an event listener in JavaScript?	
To change the appearance of a web page	
O To add new elements to a web page	
To respond to user interactions with a web page	<b>✓</b>
O To retrieve data from an external API	

× What would you put in the blanks on line one so that the console.log 'Hi!' appeared whenever a user clicked on the button?

```
• • •
1 button.addEventListener(__1_, __2_);
 3 function sayHi(){
    console.log('Hi!');
 5 }
```

- sayHi, 'click'
- 'click', sayHi
- 'click', sayHi()
- sayHi(), onclick
- onclick, sayHi

Correct answer

click', sayHi

X

<b>~</b>	Which of the following is true about asynchronous programming in JavaScript?
0	It allows JavaScript code to run faster than synchronous programming
•	It can improve the user experience by allowing long-running operations to execute in the background without blocking the rest of the functionality
0	It always involves making API calls to external servers
0	It is simpler to use than synchronous programming
<b>~</b>	What is a callback function in JavaScript?
•	A function that is passed as an argument into another function so that it can be $\checkmark$ called with that other function when it's needed
0	A function that is used to create new elements in the DOM
0	A function that is used to manipulate the appearance of a web page
0	A function that is used to handle errors in an asynchronous function

 $\checkmark$  Which keyword can you put in the blank on line one below to designate a function as an asynchronous function? • • • 1 \_\_\_\_\_ function doAsyncThing(){ 3 } await callback fetch async DOM When would you use the 'await' keyword? Select all that apply. When fetching data from an external API When using DOM methods like document.querySelector() When calling .json() on the results of a fetch call from an external API When dealing with anything that returns a promise When calling any function, whether it's synchronous or asynchronous

✓ What is the purpose of the Fetch API in JavaScript?	
To retrieve data from an external API	<b>~</b>
To add new elements to a web page	
O To update the appearance of a web page	
To manipulate the structure of the DOM	

★ When I try to run the code below, I get an error in my console: "Uncaught (in promise) TypeError: Cannot read properties of undefined (reading '0')" instead of a cat fact in my h1. Read the code carefully, and see if you can figure out what went wrong. Only one of the statements below is true and the reason why the error has occurred!

```
1 async function getFact() {
2   const response = await fetch("https://meowfacts.herokuapp.com/");
3   const data = response.json();
4   const heading = document.querySelector("h1");
5   heading.textContent = data.data[0];
6 }
7
8 getFact();
```

- Line 1: I shouldn't have used the async keyword when defining the function as nothing asynchronous is happening within it.
- Line 2: I shouldn't have awaited what fetch returns when assigning response that's caused a delay which means the data never arrives.
- Line 3: Even though I already awaited fetch, I still need to await response.json() as well, as I don't know how big the response is or how long it will take to parse the data (so it too returns a promise).
- Line 4: I didn't select the h1 correctly.
- Line 5: I don't need to use my dot and bracket notation to select the actual fact string inside the data object; I can just assign the whole object to textContent, and it'll find the string it needs.
- Line 8: I shouldn't call getFact(). The code in the function should already run automatically when the file is loaded.

## Correct answer

Line 3: Even though I already awaited fetch, I still need to await response.json() as well, as I don't know how big the response is or how long it will take to parse the data (so it too returns a promise).

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