**AeroAspire-SDE Intern Training**

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Day 3-Sep 24  
  
A screenshot of a computer

AI-generated content may be incorrect.

* The greeting is done by a if else structure/ladder
* the toggle section is open which is done by button tags with on click attribute
* the name is entered while the email doesn’t satisfy the condition.
* for the email pattern it must have a ‘@’ symbol

A screenshot of a computer

AI-generated content may be incorrect.

* The submission without page reload is handled by .preventDefault() so the result is displayed below without reload.

Questions:

1. Difference between let, const, var?
   1. Let and const have block scope
   2. Var has function scope
   3. Let and const must be declared before use where as var can be used without declaration
   4. Let and const does not bind to this clause but var does
   5. Let and const cannot be hoisted, var can be hoisted
2. What is event listener?
   1. Event listener is a method that makes function execute upon occurrence of certain events.
   2. The function is made to execute when the event occurs
   3. The event here is a trigger maybe that indicates to execute
   4. , it maybe a click or a hover anything.
3. Walk through the event flow when you click the button:
   1. So when we click the button a event has occurred
   2. Here the event is click
   3. This is detected and the event listener method calls the function that is assigned and the task is done.
   4. The right function is called for a specific event
4. how does JS know which DOM element, what listener, what callback?
   1. JavaScript uses event listeners attached to specific DOM elements
   2. A list of event listeners is kept and the right function is called for a specific event
5. What is the difference between event capturing vs bubbling?
   1. In event capturing the event goes to the target element from the top.
   2. In event bubbling the event starts at a specific element and goes to the top that is to the parent elements.
6. How could you debug JS errors in browser dev tools?
   1. To check for js errors in a browser we can use the inspect tab.
   2. Where under the console section there would be a list of the errors and also certain log messages
   3. Under the sources tab we can see breakpoints, variable values, and we can inspect event listeners.
7. What is event.preventDefault(), why/when you use it?
   1. event.preventDefault() stops the default browser action like maybe any interrupt event from submitting so we can check first, or stopping a link from following its URL.
   2. It restricts the primary redirection and any submissions
8. How to validate fields? How do you validate form fields (required, email format, etc.) in JS?
   1. We check if required fields are filled and email format is correct
   2. For email we can check for the presence of @ symbol in the data entered and return false in case of absence.
   3. Or in general if there is no data entered.
   4. For email I used the email.includes("@"))
9. Describe data flow from user input → validation → UI feedback.
   1. User enters data into the form
   2. First it checks the input for required fields and correct format based on the conditions specified in the clauses like here if clause is used
   3. If input is invalid a alert or error message is displayed
   4. Else it proceeds with the normal flow
   5. The ui feedback would be like nothing has happened maybe because the data input would be valid else as mentioned a error message would be shown and maybe a certain change in css would make it more noticeable.