

Explain event bubbling.

An event is first captured by the innermost element and then propagated to outer elements.

Explain event capturing
(trickling).

An event is first captured by the outermost element and then propagated to inner elements.

Explain event delegation.

Allows you to avoid adding event listeners to specific nodes; instead, the event listener is added to one parent. That event listener analyzes bubbled events to find a match on child elements. Eg. Adding an event listener to a UL to catch bubbled events from an LI.

Explain javascript closures.

"A closure is a function having access to the parent scope, even after the parent function has closed." Layman terms: Assigning a variable to a self-invoking function, so that the function can have private variables. Eg. a counter function.

Explain what `map()` does.

The `map()` method creates a new array with the results of calling a provided function on every element in this array.

What does `apply()/call()`
do?

Executes a function in the context, or scope, of the first argument that you pass to them. `call()`'s further arguments will be the parameters to pass, `apply()` takes an array as it's second argument.

What does `bind()` do?

Allows you to keep the context of this within another function. `.bind()` simply creates a new function that, when called, has its 'this' keyword set to the provided value.

What is an event loop in
Node.js ?

To process and handle external events and to convert them into callback invocations an event loop is used. So, at I/O calls, node.js can switch from one request to another.

What is a virtual function?

An inheritable and overridable function or method for which dynamic dispatch is facilitated. This concept is an important part of the (runtime) polymorphism portion of object-oriented programming (OOP).

What is a virtual method table?

A mechanism used in a programming language to support dynamic dispatch (or run-time method binding).

What is encapsulation?

Packing of data and
functions into a single
component

What is inversion of control?

A design in which custom-written portions of a computer program receive the flow of control from a generic, reusable library

What is node.js?

Node.js is a Server side scripting which is used to build scalable programs. Its multiple advantages over other server side languages, the prominent being non-blocking I/O.

What is polymorphism?

What is strict mode?

A mode for JS wherein there are more reserved keywords, and you cannot use an object w/o declaring it, delete a variable/object/func, duplicate parameters, use escape characters, etc. Strict mod makes it easier to write "secure" JS, and changes "bad syntax" into real errors.

What is tail recursion?

A tail call is a subroutine call performed as the final action of a procedure

What is the preferred
method of resolving
unhandled exceptions in
Node.js?

Unhandled exceptions in Node.js can be caught at the Process level by attaching a handler for uncaughtException event.

```
process.on('uncaughtException',  
function(err) {  
  console.log('Caught exception: ' + err);  
});
```

Whats the difference
between a promise and a
callback?

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