

Prompts:

1. What are the differences between var, let, and const?
2. What are the differences between callbacks and promises?
3. What are some features that are new with ES6?
4. How does a promise work?

Instructions:

Please write a paragraph for two (2) of the above prompts and include URLs from where you found the information to cite your sources. Do not copy and paste text from the internet or any other source; use the information you find in your research, summarize, in your own words, the concepts. Plagiarism will result in a zero for the assignment as well as disciplinary actions.

1. What are the differences between var, let, and const?

The biggest differences between 'var', 'let', and 'const' are scope, declaration and re-declaration, and updating variables.

- Var:
 - Scope: Var declarations are globally scoped when declared outside of a function, they are function scoped when declared within a function.
 - Declaration/Updating: Variables declared with 'var' can be redeclared and updated.
 - Hoisting: Variables declared with 'var' are hoisted to the top of their scope. When calling a variable is called before it is declared with will come back as "undefined"
- Let:
 - Scope: Let declarations are block scoped, when trying to access a variable outside of its declared block, it will come back as 'undefined'.
 - Declaration/Updating: Unlike 'var' variables declared with 'let' cannot be re-declared. But they can be updated.
 - Hoisting: Similar to 'var', 'let' is hoisted to the top but if you try to use a 'let' variable before declaration it will come back with a 'reference error' rather than being 'undefined'.
- Const:

- Scope: Similar to 'let', 'const' is block scoped and can only be accessed within the block that they were declared in.
- Declaration/Updating: The biggest difference with 'const' from 'var' and 'let' is that 'const' variables **cannot** be updated or re-declared.
- Hoisting: 'const' declarations are similar to 'let' that they are hoisted to the top.

URL: <https://www.freecodecamp.org/news/var-let-and-const-whats-the-difference/>

3. What are some features that are new with ES6?

With the introduction of ES6 we were introduced to new features such as 'let' and 'const', string template literals, and arrow functions as well as additions to loops, methods, and classes.

URL: https://www.w3schools.com/Js/js_es6.asp