Intro to Javascript

Define the following

Statement:

A statement is a programming instruction telling the computer what to do.

Expression:

An expression is a combination of values, variables, and operators, which computes to a value. This computation is called an evaluation.

Token:

A token is a word or operator reserved for use in code writing - a single element of the programming language. Examples include "new" and "function" and the mathematical operators +, -, /, and *.

Identifier:

A sequence of characters in the code that identifies a variable, function, or property. Javascript identifiers are case-sensitive and can contain letters, $, _, and digits 0-9, but they may not begin with a digit.

In four sentences or less, explain the following

What is the difference between =, ==, and ===?

=== is the symbol for strict equality, meaning the type and value must be exactly the same. == is the symbol for loose equality, meaning the values are compared after converting both to the same type of value. = is used to set the value of a variable.

What is the difference between declaration and initialization?

Declaration is the simple creation of a variable using the element "var." This variable has no value assigned to it until initialization occurs which is assigning the variable its initial value.

Exercise

Create a program that contains the following. Use values of your choosing that satisfy the conditions given.

a). Alpha is a number that is > Beta. Beta is a number < Charlie. Charlie is a string. In the program evaluate if Alpha and Beta have equal values, then determine if Beta and Charlie are equal values and are the same type. If Alpha is not less that Beta, log a message. If Beta and Charlie are of the same value and type, log a message.

Separate file.

b). Add a variable called Delta which is an object. Delta has 3 properties. Customers(number), id(string), landed(boolean).
In the program check if the number of customers is > Beta AND that delta's id is not equal to Charlie.

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c). On a sheet or paper or digitally, draw a illustation of how following is allocated in memory.

```
1  let count = 3;
2  let main = false;
3  let Pokemon = {
4      name: Pikachu,
5      type: 'electric',
6      attack: 12,
7      defense: 10,
8      level: 5,
9      fainted: false
10 };
11
```

Separate file.

BIT / BYTE: These are units of memory storage using computers. The bit is the smallest unit and can only contain a 0 or a 1. A byte is a collection of 8 bits and can contain a character such as a letter.