W1D2 Data Types and Operators

Answer the following questions in a word document based on your reading assignment

1. What will be the output of running following code?

console.log(Number(null)); // Naha: 0

console.log(Number(undefined)); // Naha: NaN

console.log(Boolean("0")); // Naha: false

console.log(Boolean(" ")) ; // Naha: false

2. What will be the output of running following code?

let a = b = 2;

let c = 3 - (a + b + 1);

console.log(a--); // Naha: 2

console.log(++c); // Naha: -1

console.log(a); // Naha: 1

console.log(c); // Naha: -1

3. What is the significance of + operator before prompt function in following code?

let a = +prompt("First number?");

Naha: The unary + operator can be used to convert the string of prompt("First number?") to a number. The return of prompt( ) is string.

1. What is the use of !! and ?? operators in JavaScript? Explain with an example of each.

Naha:

1) A double NOT !! is sometimes used for converting a value to boolean type. For wxample.

alert( !!"non-empty string" ); // true

alert( !!null ); // false

That is, the first NOT converts the value to boolean and returns the inverse, and the second NOT inverses it again. In the end, we have a plain value-to-boolean conversion.

2) The nullish coalescing operator (??) is a logical operator that returns its right-hand side operand when its left-hand side operand is null or undefined, and otherwise returns its left-hand side operand.

This can be contrasted with the logical OR (||) operator, which returns the right-hand side operand if the left operand is any falsy value, not only null or undefined.

const foo = null ?? 'default string';

console.log(foo);

// expected output: "default string"

const baz = 0 ?? 42;

console.log(baz);

// expected output: 0

1. Which of the following statements is true?

a. In computer programming, a statement can be part of an expression.

b. In computer programming, an expression can be a part of a statement.

Naha: b is true. Explain below:

An expression is a series of variables, operators, and method calls that evaluates to a single value.

A statement forms a complete unit of execution and is terminated with a semicolon (;). There are types of expressions can be made into a statement by terminating the expression with a semicolon (;):