

## Career Services Assignment 3 – Java Flash Cards

Points possible: 50

Category	Criteria	% of Grade
Completeness	All requirements of the assignment are complete.	100

**Instructions:** Research common JavaScript interview questions online and create 20 flash cards from the information you find. Study your flash cards regularly to better prepare for interviews. Fill out the table below with the information you put on each of your flash cards.

Front of Card	Back of Card
1) Describe the types of data that are present in JavaScript	1) Primitive types of data – number, BigInt string, Boolean, null, undefined, and symbol 2) Non-Primitive types of data – objects and arrays
2) What is the difference between ‘==’ and ‘===’?	Both are examples of the equality operator. However, the ‘===’ is an example of the strict equality operator in which it will compare not only the value, but also the type of data provided. ‘==’ can convert data into different types to compare two values such as “2” and 2.
3) What is Hoisting in JavaScript?	Hoisting is the action of variables and declared functions being moved to the top of the scope automatically.
4) What is the difference between var and let?	Both var and let are used to declare values globally. However, let will allow the variable to be called on a block scope once otherwise it will bounce back an error. This is useful so that you don’t change a value unintentionally.
5) Is JavaScript a static or dynamic language? Why?	JavaScript is a dynamic language because variables are checked by <b>run-time</b> and variables can hold multiple data types and aren’t limited to a specific type.
6) What is the NaN property type in JS?	The NaN property type stands for “Not a Number” and this is useful to determine if something is a number or not using isNaN( ).
7) Explain the “this” keyword.	The keyword “this” is used to reference the object that it is encapsulated in. If it’s not encapsulated, it will refer to the Global object.

8) Explain Implicit Type Coercion in JavaScript.	Implicit Type Coercion takes two variable of different types and converts them together. For example, <code>x = 3</code> and <code>y = '3'</code> ; <code>x + y = '33'</code> ;
9) What are arrow functions?	These were introduced in ES6 and it allows for a cleaner syntax of code compared to the old way to call functions. It omits the function keyword and if used with only one line of code it also omits the return keyword.
10) What method is utilized to retrieve a character at a specific index?	<code>charAt( )</code> . It pulls the character from the specified index starting at 0.
11) What is the purpose of the constructor function in JS?	The constructor keyword is used to create objects. It is noted that these should follow a Pascal script in which every word is capitalized compared to the standard camelCase.
12) Explain Scope and Scope Chain.	There are three types of scope: Global scope, local/function scope, and block scope. When variables and functions are declared within the global namespace, they will be able to be called throughout the entire code. Function/Local scope are variables and functions declared within a function. They can only be referenced within that function and can't be accessed outside of it. Block scope refers to the keywords <code>let</code> and <code>const</code> in which the variables can only be accessed within the block that they're contained within.
13) What are object prototypes? What are some examples?	Object prototypes are the blueprints of an object. This allows for the object to access properties and methods that aren't attached to it. Some examples are date prototypes, math prototypes, and array prototypes.
14) How many different methods can you make an object?	<ol style="list-style-type: none"> <li>1. Object.</li> <li>2. using Class.</li> <li>3. create Method.</li> <li>4. Object Literals.</li> <li>5. using Function.</li> <li>6. Object Constructor</li> </ol>
15) What are the use of promises in JS?	Promises are used to handle asynchronous operations in JS. They are more manageable than callbacks and allow for cleaner code. There are four states:

	1)Pending 2)Fulfilled 3)Rejected 4)Settled
16) What is memoization?	Memoization is a form of caching where the return value of a function is cached based on its parameters. If the parameter of that function is not changed, the cached version of the function is returned.
17) What are the benefits of using JavaScript?	1) It can be operated on client-side and server-side 2) It's a simple language to learn 3) Web pages have more functionality 4) For end-users it operates quickly
18) What is a closure?	A closure is the ability of an inner function to be able to reach out and obtain information from an outer function.
19) What is recursion in a programming language?	Recursion is the process of a function calling itself so that it iterates multiple times until a condition has been met.
20) What is an immediately invoked function?	An immediately invoked function is a function that runs as soon as it is declared.