**JAVASCRIPT NOTES**

**Topics:**

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**\* [Javascript Types]** are dynamic. This means that the same variable can be used to hold different data types.

\* Variables: Most basic building block. Store, Access, Modify === Value.

- There are 3 non-primitive data types :

**1.** Let

**2.** Var

**3.** Const

1. **let**: let is for declaring variables.

2. **var:** Var is a traditional way of declaring variables from 1995. When the latest update was introduced in 2015 aks ecmascript-2015/es-6 then var was replaced by **let** and **const**.

3. **const:** const is consonant can not be reassign.

**# Implicit Type conversion (coercion)**

**-** There are various operator and functions in Javascript which automatically converts a value to the right type like alert() function in JS accepts any value and convert it into a string.

**- Implicit type conversion**, also known as coercion, is an automatic type conversion performed by the dynamic query engine. Implicit type conversion is used when argument types do not match the required parameter types of a function.

- In JavaScript, type coercion happens implicitly when operators or functions are applied to values of different types. For example, if you try to add a string and a number using the "+" operator, JavaScript will convert the number to a string and concatenate the two values.

**# Data types**

\*Data types – 7 total

\* Primitive – String, Number, Boolean, Null, Undefined, Symbol (ES-6). (**Primitive meaning** - **denoting the character of an early stage in the evolutionary or historical development of something**)

\* Object – Arrays, Functions, Objects

\* typeof – operator (typeof variable) (typeof value)

# **Asynchronous, Await, Promises**

**\*** What is Asynchronous Javascript ?

= If we want to make bigger projects more efficiently then we need Asynchronous Javascript. It allows to make bigger projects in smaller tasks.

For example: Ice Cream

1. Place Order – 2 second

2. Cut the fruit – 2s

3. Add water and ice – 1s

4. Start the machine – 1s

5. Select Container – 2s

6. Select Toppings – 3s

7. Serve Ice Cream – 2s

\* Difference between Synchronous and Asynchronous

= let’s assume you have given 10 tasks, with one hand. Then anyone will complete it one by one(Following a order). But if you have given 10 tasks with 10 hands then anyone can complete it within one single step.

**Synchronous Way:**

**Finish one by one**



**Finish**

**Person 3**

**Person 1**

**Person 2**



**May have to stop for others**

**Person 1**

**Don’t need to stop for others**

**Asynchronous Way:**

**All together. If we have more participants then number of lane’s will increase.**

**Finish**

**Person 3**

**Person 2**

