**Introduction to Web Development: JavaScript**

**Class 2: Exercises**

1. Reflect upon your learning of the different Data Types and computer memory. Think about where, in memory, the different data types (primitive and referenced) are stored and why.

Why would something be in the heap vs. the stack. Think about if something is used once or if something is used over and over…

Diagram

Description automatically generatedReminder:

**Primitive Data Types – the stack**

In computer science, primitive data types are a set of basic data types from which all other data types are constructed.

**Referenced Data Types – the heap**

A reference type is a code object that is not stored directly where it is created, but that acts as a kind of pointer to a value stored elsewhere.

1. Be able to implement and use both primitive and reference data types.

Code some **primitive types** and display their respective typeof using the console.log() function.

// PRIMATIVE TYPES

// String

const fullName = "Satan Claus";

// Number

const aNumber = 96;

// Boolean

const isTrue = false;

// Null

const isNull = null;

// Undefined

let isUndefined;

// Symbol

const aSymbol = Symbol();

console.log(typeof fullName);

Code some **reference types** and display their respective typeof using the console.log() function

// REFERENCE TYPES

// Arrays

const instruments = ['bass', 'tenor banjo', 'ukelele', 'guitar'];

// Objects

const person = {

firstName: 'Bob',

lastName: 'Bobson',

city: 'Bobville',

age: 35

};

console.log(typeof instruments);

// Dates

const today = new Date();

console.log(today)

console.log(typeof today);

1. Play around with converting data types into other data types.

// Type Coercion

const val1 = String(5);

const val2 = 6;

const sum = Number(val1 + val2);

console.log(sum);

console.log(typeof sum);