CustomJS primer for Calculatorians®

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Omni Calculator Project

Contents

Contents **2**

1 Before you start **5**

1.1 Who is this CustomJS guy?[An introduction to customJS] 5

1.1.1 You only need food, water and sleep 5

1.1.2 Do what you can because you must 5

1.1.3 when freedom is subjugated to the marketing needs 5

1.2 CustomJS at Omni [Built-in functions] 5

1.2.1 onInit 5

1.2.2 onResult 5

1.3 Programming vs witchcraft spells [Fundamentals of coding] 5

1.3.1 What is a program? 5

1.3.2 Javascript vs HTML 5

1.3.3 Variables, functions, operations... 6

1.3.4 Order of execution and loops - Basics 6

1.3.5 Order of execution and loops - Advanced 6

1.3.6 The laziness principle 7

1.4 A short list of strong suggestions [Do's and Don'ts] 7

1.4.1 Do's 7

1.4.2 Don'ts 7

2 Okay, so you are already coding... **9**

2.1 What can you do [typical additions in customJS] 9

2.1.1 The obvious answer 9

2.1.2 Mix it up, spice it up! 9

2.1.3 Useful examples 9

2.1.4 How to memorize everything 9

2.2 Sh*t! Why is this not working! [debugging for normies] 9

2.2.1 The disappearing calculator 9

2.2.2 The error message in place of the calculator 9

2.2.3 The "everything works but the result is wrong" 9

2.2.4 developer options, call html for help and other tricks . . . 10
2.3 Do yourself a favor, do your colleagues a favor [Style guide] . . . 10
2.3.1 I don't like rules, why do we have them? . . . 10
2.3.2 Organizing the code . . . 10
2.3.3 Formal style conventions . . . 10
2.4 Okay, but how can I...? [additional resource] . . . 10

A To infinity and beyond! 11
A.1 A collection of helpful resources . . . 11

Bibliography 13

Chapter 1

Before you start

1.1 Who is this CustomJS guy? [An introduction to customJS]

1.1.1 You only need food, water and sleep

Most calculators don't require customJS

1.1.2 Do what you can because you must

But CJS is generally a good addition to most calcualtors (pictures, interactive options...)

1.1.3 when freedom is subjugated to the marketing needs

If you're doing a marketing calculator you MUST please the marketing team, and they will not settle for anything without some customJS in it. Make it wacky!

1.2 CustomJS at Omni [Built-in functions]

1.2.1 onInit

and its functions (and shortcomings) here

1.2.2 onResult

and its many more funtions here

1.3 Programming vs witchcraft spells [Fundamentals of coding]

1.3.1 What is a program?

Text that tells the computer what to (only here for completeness)

1.3.2 Javascript vs HTML

JS does HTML shows

1.3.3 Variables, functions, operations...

Variables - Primitives

int vs float. Number vs string. boolean

Operations

obv, isn't it? but it depends on the type of variable

Variables - Compounding like I have interest

Arrays, lists, dictionaries, objects...

Functions

Interactive variables

1.3.4 Order of execution and loops - Basics

Bla bla bla up to down unless modifiers or functions.

if (if-else)

don't over use them

for

the protytpe loop

while

for's brother

break

DENIED!

switch...case

A fancy if, technically faster, only use for clarity

1.3.5 Order of execution and loops - Advanced

Don't use, but they are cool, so maybe use?

do-while

for's weird cousin

labeled

Make it your own!

continue

if you need help: Juan

for...in

for's weird cousing from Alabama

for...of

for's weird-cousin-from-Alabama's normal son

1.3.6 The laziness principle

If it takes more than 5min to do think if someone might have done it before and look for it (or ask politely) If you're doing the same thing more than 3 times, it can probably be automated. Never write the same thing (or almost the same thing) more than 5 times, there's surely a more efficient way[1]

1.4 A short list of strong suggestions [Do's and Don'ts]

1.4.1 Do's

follow the rules

1.4.2 Don'ts

follow the rules ALWAYS

[1] Exceptions might apply

Chapter 2

Okay, so you are already coding...

2.1 What can you do [typical additions in customJS]

2.1.1 The obvious answer

omni.functions && his friend

2.1.2 Mix it up, spice it up!

you are free[1]

2.1.3 Useful examples

source from trello

2.1.4 How to memorize everything

Don't!

2.2 Sh*t! Why is this not working! [debugging for normies]

2.2.1 The disappearing calculator

You made a mistake, find it

2.2.2 The error message in place of the calculator

You made a mistake, find it using this hints (google = friend)

2.2.3 The "everything works but the result is wrong"

Maybe you've triggered some unexpected behaviour, check how you are using omni functions and ctx functions

[1] restrictions may apply. Free will is not guaranteed by Omni or the Universe

2.2.4 developer options, call html for help and other tricks

plan ahead and your life will be easier. Then again, where is the fun in that?

2.3 Do yourself a favor, do your colleagues a favor [Style guide]

2.3.1 I don't like rules, why do we have them?

2.3.2 Organizing the code

Omni.defines functions general variables onInit OnResult [final convention to be determined by democratic voting cause idc enough to be a dictator]

2.3.3 Formal style conventions

Bracket positioning, indentations, truncation of lines, spaces... [final convention to be determined by democratic voting cause idc enough to be a dictator]

Naming conventions

thisIsAVariableNameThatLooksGood
this_i_do_not_like_but_is_alright_i_guess
this_ISHorrendous
DontDoThis
andneitherdothispls

Commenting

Comment the weird bits, comment for visual aid comment as much as needed and as little as possible

Space vs Tabs: the age old debate nobody should've had :(_)

Tabs are for losers, end of the story

2.4 Okay, but how can I...? [additional resource]

Appendix A

To infinity and beyond!

A.1 A collection of helpful resources

Bibliography