

# **PROGRAMMING BASICS**

**4300 FRONTEND DEVELOPMENT**

Kids, violence is never the answer



HTML is a Programming Language



# CONTENT

- Basic Algorithms – Coffee Machine
- Basic Algorithms – Flow Charts
- Code – Pseudo Code
- Introduction to JavaScript
  - History
  - Principles
- Syntax

# BASIC ALGORITHMS

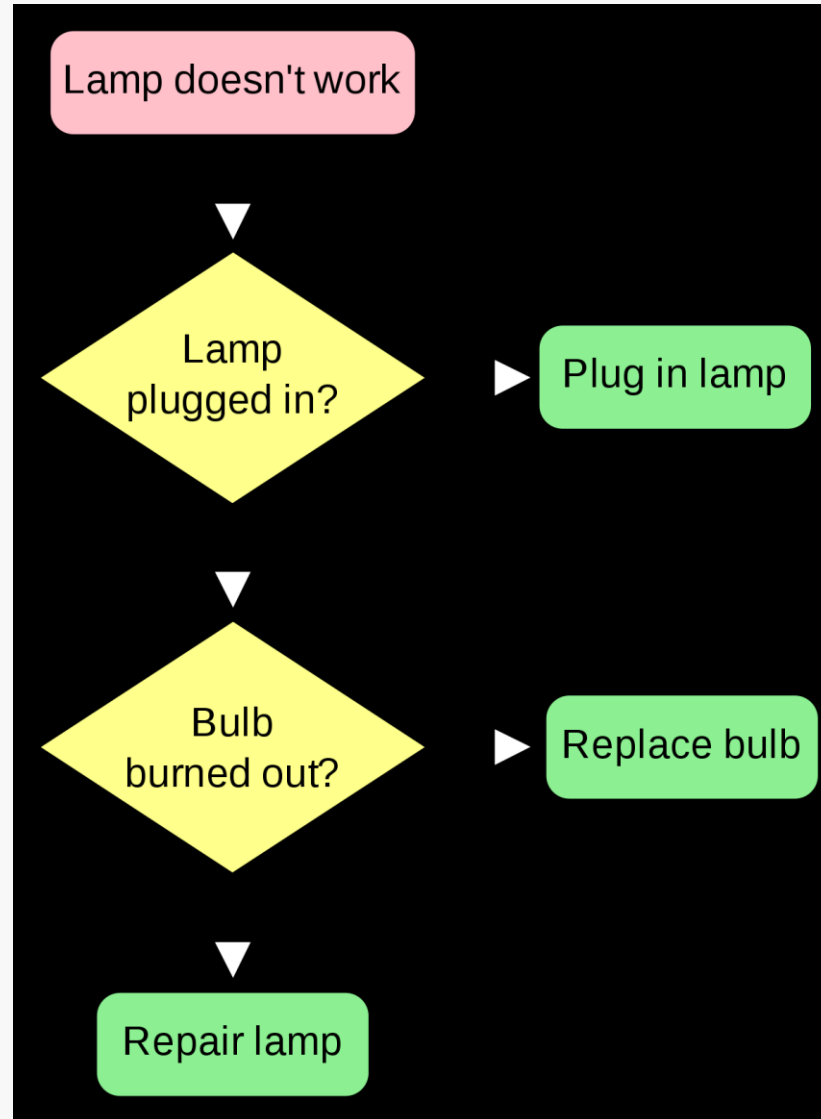


# EXERCISE DESCRIPTION

- You want to make a coffee with milk and sugar using the coffee machine.
- Describe the process you and the machine have to go through to make this coffee.
- What question do you have to ask?
  - i.e Is the machine plugged in?
  - i.e Do you have to refill the water?
- You can write down the process using sentences in whichever language you want.

# BASIC ALGORITHMS

- Flow Charts



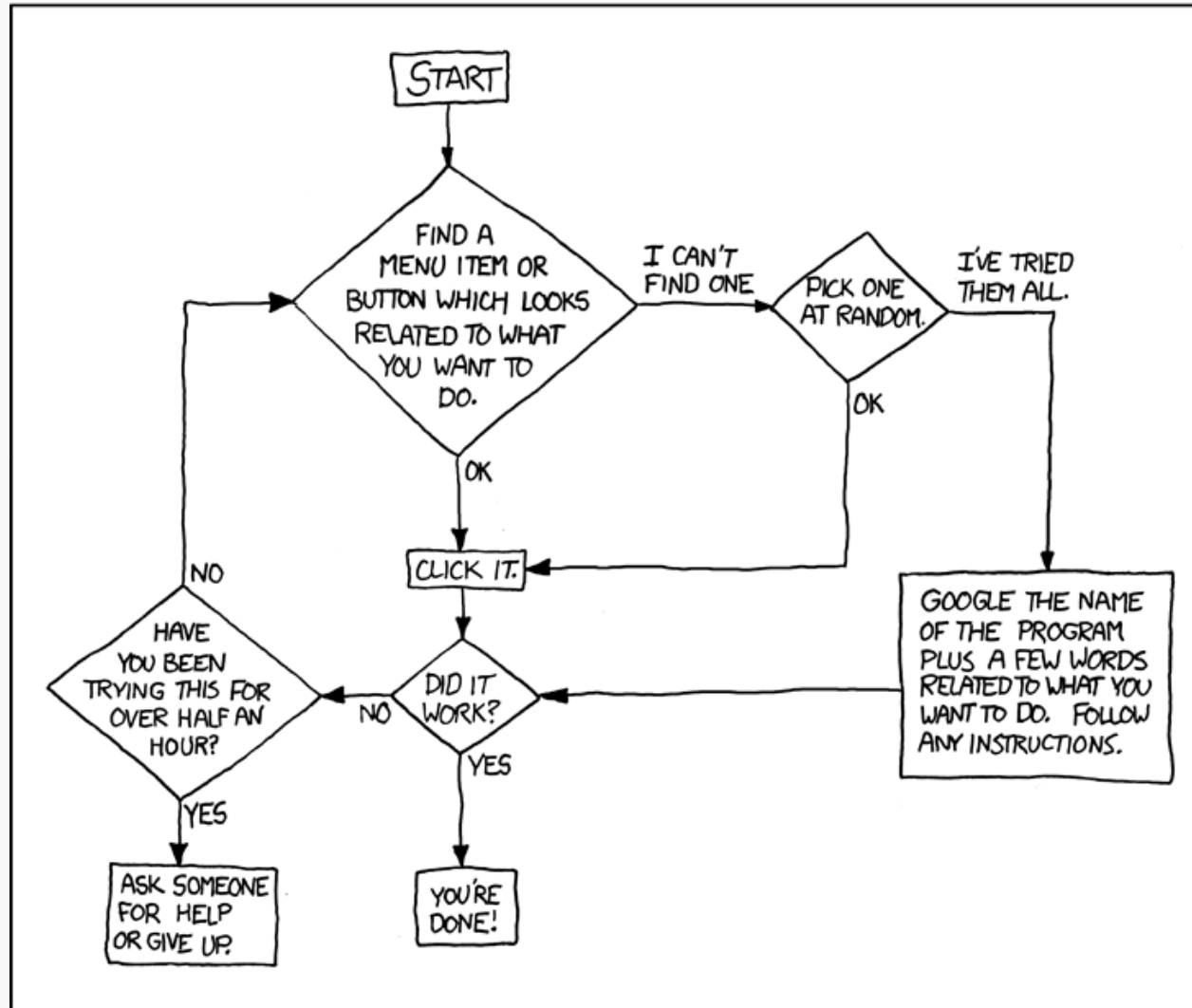
ANSI/ISO Shape	Name
	Flowline (Arrowhead) <sup>[15]</sup>
	Terminal <sup>[14]</sup>
	Process <sup>[15]</sup>
	Decision <sup>[15]</sup>
	Input/Output <sup>[15]</sup>
	Annotation <sup>[14]</sup> (Comment) <sup>[15]</sup>
	Predefined Process <sup>[14]</sup>
	On-page Connector <sup>[14]</sup>
	Off-page Connector <sup>[14]</sup>

# EXERCISE DESCRIPTION

- Convert the previously written process for the coffee machine example into a flowchart.
- Use decisions ( if something then something ) and arrows to link the decision process.
- You can use draw.io to make your flowchart.

DEAR VARIOUS PARENTS, GRANDPARENTS, CO-WORKERS,  
AND OTHER "NOT COMPUTER PEOPLE."

WE DON'T MAGICALLY KNOW HOW TO DO EVERYTHING IN EVERY  
PROGRAM. WHEN WE HELP YOU, WE'RE USUALLY JUST DOING THIS:



PLEASE PRINT THIS FLOWCHART OUT AND TAPE IT NEAR YOUR SCREEN.  
CONGRATULATIONS; YOU'RE NOW THE LOCAL COMPUTER EXPERT!



# CODE

- Structured Language / Pseudo Code

```
IF customer has a Bank Account THEN
    IF Customer has no dues from previous account THEN
        Allow loan facility
    ELSE
        IF Management Approval is obtained THEN
            Allow loan facility
        ELSE
            Reject
        ENDIF
    ENDIF
ELSE
    Reject
ENDIF
EXIT
```

# EXERCISE DESCRIPTION

- Use your flowchart to create pseudocode for your 'Making Coffee process'.
- Make sure there is structure to the code.
- You can create your own syntax and use your own words, but make sure you are consistent.

# JAVASCRIPT

78 What's the difference between JavaScript and Java?

votes

java

javascript



350

share

edited Sep 4 '10 at 19:29



Peter Mortensen

13.6k ● 19 ● 84 ● 111

asked Oct 28 '08 at 22:10



Guy

30.3k ● 83 ● 224 ● 287

**locked** by [Robert Harvey](#) ♦ Mar 20 '12 at 20:40

This question exists because it has historical significance, but **it is not considered a good, on-topic question for this site**, so please do not use it as evidence that you can ask similar questions here. This question and its answers are frozen and cannot be changed. More info: [help center](#).

Read more about locked posts [here](#).

comments disabled on deleted / locked posts / reviews

15 Answers

active

oldest

votes

575 Java and Javascript are similar like Car and Carpet are similar.

votes

share



answered Oct 28 '08 at 22:12



Greg Hewgill

670k ● 144 ● 1013 ●

1166

# INTERPRETED LANGUAGES

- Lua
- JavaScript
- VBScript and VBA
- Perl
- Python

# COMPILED LANGUAGES

- C
- C++
- D
- Java
- Pascal

# HISTORY

- Using the following links, figure out which event redefined JavaScript in 2015
- <https://en.wikipedia.org/wiki/ECMAScript>
- <https://en.wikipedia.org/wiki/JavaScript>
- Quick Tip
  - A new version of JavaScript every year was not the norm.



Time to  
**CODE !**