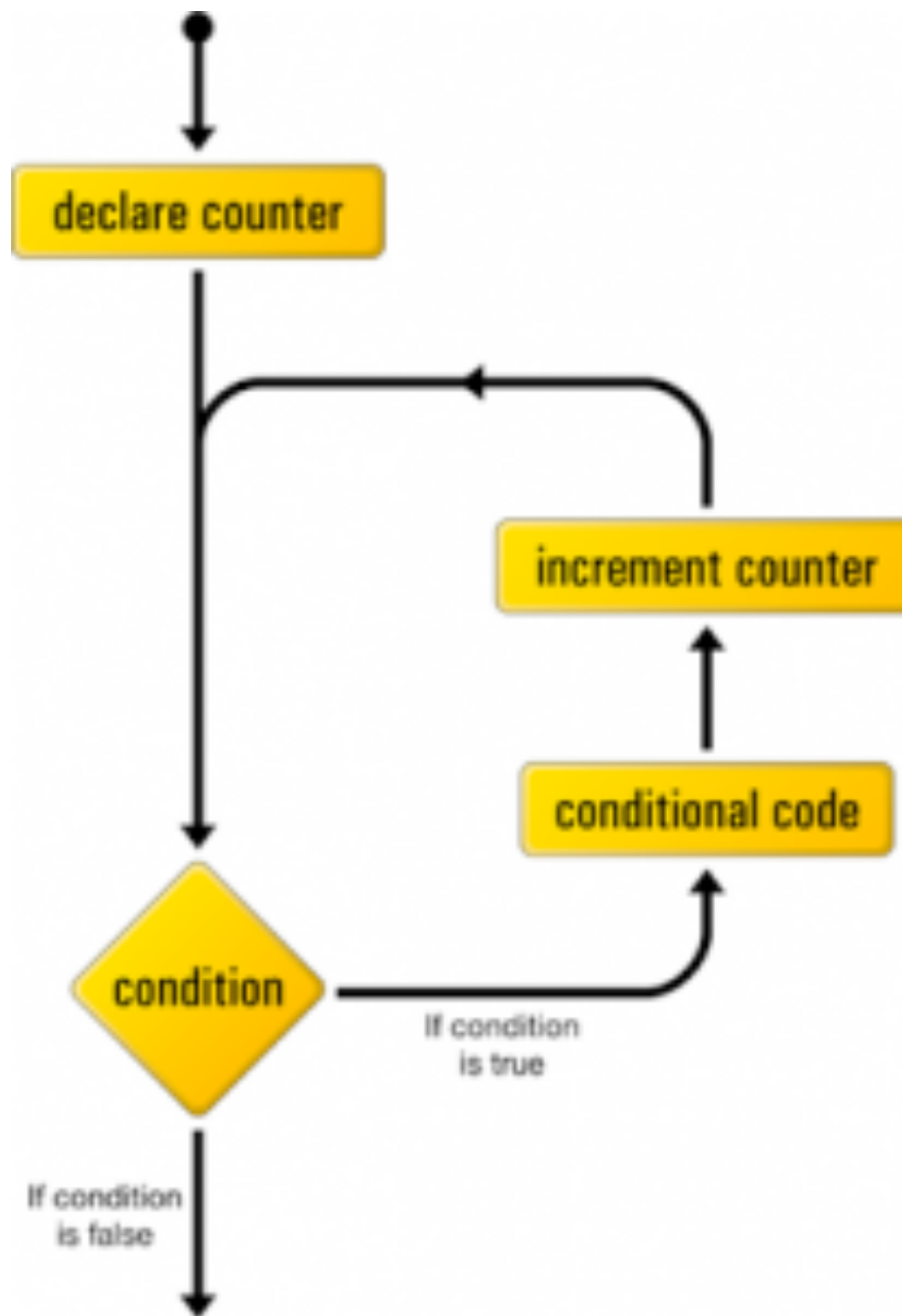




RUTGERS | CODING BOOTCAMP

Session 3.2 - Arrays Continued + Looping + RPS

Arrays Continued + Looping + Rock Paper Scissors + Break Points



Objectives

- students will manipulate and use arrays
- students will loop over an array
- students will play rock paper scissors
- students will outline out how to play rock paper scissors *outlining means pseudo-coding
- students will make a rock paper scissors game
- students will trigger break points in a couple of ways to "stop time"

Arrays

The JavaScript Array object is a global object that is used in the construction of arrays; which are high-level, list-like objects.

```
var coolPeople = ['bruce lee', 'arnold schwarzenegger',  
                  'will smith', 'esther', 'marie curie', 'joan of arc'];
```

Looking Inside of Arrays

```
var coolPeople = ['bruce lee', 'arnold schwarzenegger', 'will smith', 'esther', 'marie curie', 'joan of arc'];
```

Is 'joan of arc' in coolPeople[0]?

No. Try Again.

Is 'joan of arc' in coolPeople[1]?

No. Try Again.

Is 'joan of arc' in coolPeople[2]?

No. Try Again.

Is 'joan of arc' in coolPeople[3]?

No. Try Again.

Is 'joan of arc' in coolPeople[4]?

No. Try Again.

Is 'joan of arc' in coolPeople[5]?

Yes!

Pseudocode

Is Joan of Arch in our list of cool people?

Loops and Iterating

A loop is a sequence of instructions that is continually repeated until a certain condition is met in computer programming.

For Loop

The FOR Loop

- In JavaScript, loops are useful when you want to execute the same code repeatedly with a different value each time.
- The **for** loop is used to create a loop that loops through a block of code a number of times.
- The basic syntax for a **for** loop is:
- **for (statement1; statement2; statement3)
{the code block to be executed;}**

Rock, Paper, Scissors



Pseudocode

Pseudocode is a kind of structured english for describing algorithms. It allows the designer to focus on the logic of the algorithm without being distracted by details of language syntax.

At the same time, the pseudocode needs to be complete.

It describe the entire logic of the algorithm so that implementation becomes a rote mechanical task of translating line by line into source code.

Pseudocode

Extract the next word from the line (good)
set word to get next token (poor)

Append the file extension to the name (good)
name = name + extension (poor)

FOR all the characters in the name (good)
FOR character = first to last (ok)

http://users.csc.calpoly.edu/~jdalbey/SWE/pdl_std.html

Coding Tips

- Create a Real Programming Environment
- Make Programs From Scratch
- Start Small
- Write Lots of Code
- Ask for Help
- Ask for Help the Right Way



http://www.programmingforbeginnersbook.com/blog/when_you_know_the_basics_but_you_still_cant_code/