

Programming with JavaScript

CS 102

Nov. 16, 2005

1 Introduction

In this lab, you'll get to examine a short program to see how one looks and what sorts of things a programmer can do with just a few lines of code. This will set the stage and give you some background for our later look at Artificial Intelligence.

2 Lab

1. Look over the following program and try to predict what it will do. First, observe that the program is embedded within a Web page. The lines that begin with `//` are comments. They aren't a part of the program, just documentation for it.

```
<html>
<head>
</head>
<body>
<script><!--
// This is a comment.  You don't need to type-in any of these, except
// for the one at the end.

// Variable declarations.
var name;
var age;
var i;
var currentYear = 2004;
var birthYear;
var response;

// Some straight-line execution.
name = prompt("What is your name?", "");
document.write("Hello " + name + "!<br><br>");

age = prompt(name + ", how old are you?", "");

// A conditional.
if (age >= 30)
    document.write("We can't trust you!<br><br>");
```

```

else
    document.write("I wish I were young again!<br><br>");

birthYear = currentYear - age - 1;

response = prompt("Were your born in " + birthYear + "? (y or n)", "");
if (response == "y")
    document.write("I'm smart, aren't I?<br><br>");
else
    document.write("You were born too early in the year!<br><br>");

// A loop.
for (i = 1; i <= age; i = i + 1)
    document.write(i + "<br>");

document.write("<br>Goodbye " + name + "!<br>");

// You need the following comment in your program.
//-->
</script>
</body>
</html>

```

2. Using **notepad**, type the program in (you needn't type-in the comments, except for the final one). **OR** — just copy & paste the code into **notepad** from the HTML version of the lab on the class Web page. This will save you time.
3. Save the program onto your G: drive folder with the name **jscript.htm**.
4. Open your G: drive folder and double-click on **jscript.htm** to run the program.
5. Did it do what you expected it to? Try to reconcile your predicted behavior of the program with what it actually did.
6. Challenges:
 - (a) Can you modify the **for** loop so that it counts by two rather than counting by one?
 - (b) Can you modify the **for** loop so that it counts backwards? (From your age down to 1.)