

Music & the Internet

MUMT 301

Ichiro Fujinaga
Schulich School of Music
McGill University

Plan

- Music Discovery
 - Guest: Alastair Porter (2pm)
- Music Services
 - for musicians
 - for advertisers
 - metrics
- Javascript review: Loops
- Javascript: Functions

Discovery Tools

- ex.fm (plug-in that plays mp3 files on a web page)
 - try: <http://almostmainstream.tumblr.com/> (compare on Safari & Chrome w/ex.fm)
 - <http://ex.fm/labs/blogfinder>
- Music blog aggregators:
 - <http://elbo.ws/>
 - <http://shuffler.fm/>
- later.fm (need to login)
- By mood:
 - <http://musicoverly.com/>
 - <http://www.moodagent.com/> (mobile devices and Windows app)
- Visualization
 - <http://audiomap.tuneglue.net/>
 - <http://www.musicroamer.com/>

Discovery Tools: Humans

- Experts:
 - <http://wearehunted.com>
 - <http://www.thesixtyone.com>
- Crowd sourced:
 - last.fm (passive)
 - GoRankem (active)

Discovery Tools: Machines

- Apple Genius (metadata?)
- Google's Instant Mix (US only)
 - <http://musicmachinery.com/2011/05/14/how-good-is-googles-instant-mix/>
 - <http://musicmachinery.com/2011/05/24/google-instant-mix-and-itunes-genius-fix-their-wtfs/>
- <http://www.mtvmusicmeter.com/>
 - Upcoming artists with EchoNest
- http://uplaya.com/games/music_universe (a game)

Break

Javascript: Review

- Statements:
 - For loop
 - While loop

Javascript: Loops

```
var line = "";  
for (counter = 0; counter < 10; counter++)  
{  
    line = line + "#";           // append to line, "#"  
    document.write(line + "<br />");  
}
```

```
#  
# #  
# # #  
# # # #  
# # # # #  
# # # # # #  
# # # # # # #  
# # # # # # # #  
# # # # # # # # #  
# # # # # # # # # #
```

- Do the same using a while loop

Javascript: While

```
var line = "";  
var counter = 0;  
while (counter < 10)  
{  
    line = line + " #";           // append to line, "#"  
    document.write(line + "<br />");  
    counter++;                   // same as counter = counter + 1;  
}
```

-
- Starting with the For loop version, print the triangle without using the “line” variable.

Javascript: Nested loop

```
var line = "";  
for (counter = 0; counter < 10; counter++)  
{  
    line = line + "# ";           // append to line, "# "  
    document.write(line + "<br />");  
}
```

```
for (counter = 0; counter < 10; counter++)  
{  
    for (triangle = 0; triangle < counter + 1; triangle++)  
        document.write("# ");  
    document.write("<br />");  
}
```

- Print the triangle upside down

Javascript: Nested loop (2)

```
for (counter = 0; counter < 10; counter++)  
{  
    for (triangle = 0; triangle < counter + 1; triangle++)  
        document.write("# ");  
    document.write("<br />");  
}
```

```
for (counter = 0; counter < 10; counter++)  
{  
    for (triangle = 0; triangle < 10 - counter; triangle++)  
        document.write("# ");  
    document.write("<br />");  
}
```

- Here's another way without using the nested loop

Javascript: substr()

```
for (counter = 0; counter < 10; counter++)  
{  
    for (triangle = 0; triangle < 10 - counter; triangle++)  
        document.write("# ");  
    document.write("<br />");  
}
```

```
var line = "#####"  
for (counter = 0; counter < 10; counter++)  
{  
    document.write(line.substr(counter) + "<br />");  
}
```

- Modify this so that there's a space after each “#” in the output.
- What if you want to change the size of the triangle?

Javascript: Functions

- Also known as procedures, subroutines, methods, etc.
- Purpose: To collect a set of statements to be used repeatedly anywhere in the script
- Four basic parts of a function
 - Key word: **function**
 - A function name
 - An optional comma-separated list of arguments to pass to the function enclosed in parenthesis
 - The statements in the function enclosed in curly braces
- Two sides to every function
 - The definition
 - Defines its behavior
 - The call
 - Temporary pass control to the start of the function previously defined

JS: Function Definition & Call

```
<html> <head>
```

```
  <script type="text/javascript">
```

```
function print_triangle()
{
  var line = "";
  for (counter = 0; counter < 10; counter++)
  {
    line = line + " #";    // append to line, "#"
    document.write(line + "<br />");
  }
}
```

```
</script>
```

```
</head>
```

```
<body>
```

```
  <script type="text/javascript">
```

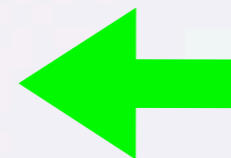
```
    print_triangle();
```

```
  </script>
```

```
</body> </html>
```



Definition



Call