

Announcements

- **Quiz #5 on Wednesday**
- **Project #5 due on Wednesday**

- **Final Exam: Wednesday 12/13**
4:00PM to 6:00PM
Room: TBA

- **Please complete course evaluations:**
<https://www.courseevalum.umd.edu/>

Organization of Complex Web Site

A complex site typically consists of three separate components:

- 1. HTML – describes structure and content**
- 2. CSS – describes style**
- 3. JavaScript – contains programs that allow user interaction**

Typical file names for a web site:

`page1.html, page2.html, page3.html, page4.html`
`myStyle.css`
`myPrograms.js`

Why separate JavaScript from HTML?

1. Saves time if several pages use the same functions.
2. You can change functionality for several pages by editing one JavaScript file.
3. Once visitor's browser has downloaded .js file, it will not have to repeatedly download this information while on the site.
4. One .js file can link to another, allowing easy re-use of existing functions.

Separating JavaScript

In Head section:

```
<script src="MyCode.js"></script>
```

For code that must run when page first loads:

- Write a function called `main`
- Use the `onload` attribute for the opening `body` tag:

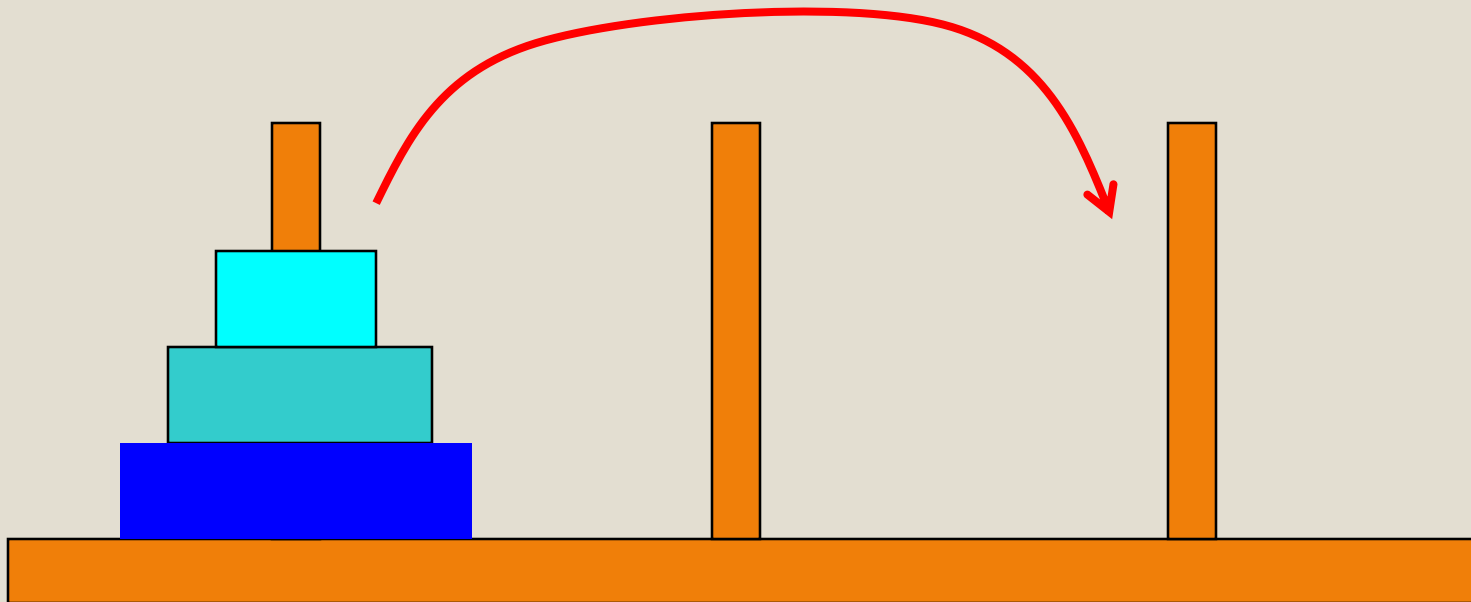
```
<body onload="main()">
```

The main function is often the place for assigning event handlers to form controls. (See example.)

Examples: [SeparateJavaScript.html](#)

Example – Towers of Hanoi

- Problem
 - Move stack of disks between pegs
 - Can only move top disk in stack
 - Only allowed to place disk on top of larger disk



Example – Towers of Hanoi

- To move a stack of n disks from peg X to Y
 - Base case
 - If $n = 1$, move disk from X to Y
 - Recursive step
 1. Move top $n-1$ disks from X to 3rd peg
 2. Move bottom disk from X to Y
 3. Move top $n-1$ disks from 3rd peg to Y

Iterative algorithm would take much longer to describe!

- **Let's code this up!**