

MIT 6.470

Javascript

Teams?

- Anyone still looking for teams?

Milestone 1

- One PDF from the group
- Due on Sunday

Javascript

- Interpreted programming language
- Object oriented
- Typically client side
- Loosely typed

Advantages / Disadvantages

- Works on the client's computer – even when offline, no extra server calls
- More responsive interfaces
- Access document elements and manipulate them
- Can be interpreted differently by browsers...
Chrome and Firefox typically behave similarly.

Common Uses

- Form validation – is username available?
- Search box autocomplete
- Animate elements – click events
- Dom manipulation – fix/update layout

Values

- Numbers [`var answer = 6.470;`]
- Boolean [`var answer = true;`]
- Strings [`var answer = "answer" ;`]
- null
- undefined [variable without an initial value]

Conditionals and Loops

```
while (i < n){  
    // the basics  
    // do something  
    i++;  
}  
for (var i=0; i<n; i++){  
    // do something else  
}  
for (var key in obj){  
    // do something with obj[key]  
}
```


Functions

```
function foo(a,b){  
    // global function  
    return a + b;  
}
```

Classes

```
function MITClass(course, semester, capacity){  
    this.course = course;  
    this.semester = semester;  
    this.capacity = capacity;  
}
```

jQuery

- Open source JavaScript library
- Simplifies interaction between HTML and JavaScript
- Cross Browser support
- Elegant DOM manipulation
- Animations
- Great API

DOM nodes

```
$("div").addClass("special");
```

- \$ is the jQuery Object (also named jQuery)
- "div" finds some elements using CSS selectors
- \$("div") returns a jQuery set (containing 0 to many DOM nodes).
- addClass(...) modifies all the divs
- Access to the DOM tree: .parent(), .next(), .prev(), .children(), .siblings()

Ready Event

```
$(document).ready(function(){
```

- In order to traverse and manipulate the page we must wait until it's ready to be used.
- jQuery has a ready event that fires the DOM is ready to be worked with.