



## Announcements

- This week
  - No quiz
  - No lecture or labs on Wednesday
  - No school on Thursday or Friday
  - No CLUE Tutoring

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## Announcements

- Drop-In labs this week
  - Tuesday only
  - 8:30-9:20am and 5:00-5:50pm MGH 430

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## Announcements

- Project 2B due on Wed., December 2

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## General comments

- The programmer's *habits of mind*
  - Read instructions
  - Work slowly and carefully
  - Pay attention to details

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Arrays and conditionals—Setting gender pronouns based on user input...

## PROJECT 2B

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## Overview

- Gender changes based on what the user chose in the dropdown menu
- Arrays set up the series of pronouns for each gender
- Use conditionals to choose which array to use

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## The gender arrays

```
var MalePronouns = new Array
("he","his","him","man","men");
var FemalePronouns = new Array
("she","her","her","woman","women");
var PersonPronouns = new Array
("one","one's","one","person","persons");
var PeoplePronouns = new Array
("they","their","them","people","people");

var gender;
```

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## Gender in your story

- Each gender has its own pronoun array
- Edit the array to include the words needed by your story
  - Replace Man with King, Prince, Boy, or Uncle
  - Replace Woman with Queen, Princess, Girl, or Aunt, etc.

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## Gender pronoun arrays

- Include only as many pronoun arrays as you have choices in your dropdown menu:

```
var MalePronouns = new Array ("King","he","his");
var FemalePronouns = new Array ("Queen","she","her");
```

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## Gender dropdown menu

- The user chooses the gender of a main character in the story from the dropdown menu

```
Choose gender: 
<label for="genderlist">Choose gender:</label>
<select name="genderlist" size="1" id="genderlist">
  <option value="Male">man</option>
  <option value="Female">woman</option>
  <option value="Person">person</option>
  <option value="People">some people</option>
</select>
```

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## Grab the user's gender choice

- Before you can do anything, you have to grab the user's choice from the genderlist dropdown menu:

```
var genderlist = document.getElementById("genderlist").value;
```

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## Conditionals

- Conditionals select the pronoun array that matches the gender selected:

```
if (genderlist == "Male")  
{  
    gender = MalePronouns;  
}  
else  
{  
    gender = FemalePronouns;  
}
```

```
<select name="genderlist" id="genderlist">  
<option value="Male">man</option>  
<option value="Female">woman</option>  
<option value="Person">person</option>  
<option value="People">some people</option>  
</select>
```

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## Conditionals

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{  
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}  
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{  
    gender = FemalePronouns;  
}
```

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## Assigning the array to a variable

- If you assign an array to a variable,
  - *The variable becomes an array*
  - Each element is accessible by array methods  
gender[0] or gender[2]

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*Understanding the document tree, revisited*

## DOCUMENT OBJECT MODEL (DOM)

**Use the Document Object Model.**

The web browser uses the Document Object Model to represent your web page. When you change this model with your JavaScript code, the web page will automatically change, too.

The DOM lets you look at this web page... in this format...

...JavaScript can work with the DOM much easier than working directly with HTML or CSS.

## DOM

- The Document object gives you access to the browser's DOM tree
- You've used it for several labs now: `document.getElementById("zone1").value`

## DOM

- Here's the HTML

```
<html>
<head>
<title>Webville Tree Farm</title>
</head>
<body>
<h1>Webville Tree Farm</h1>
<p>Welcome to the Webville Tree Farm. We're still learning about CSS, so pardon our plain site. We just bought
<a href="http://www.headfirstlabs.com/books/hfhtml/">Head First HTML with CSS & XHTML</a>, though, so expect great things soon.</p>
<p>You can visit us at the corner of Binary Blvd. and DOM Drive. Come check us out today!</p>
</body>
</html>
```

## DOM

- As the browser sees it!

## DOM

- `getElementById("id")`
  - attach ID-attributes to HTML tags and access page elements by this notation, instead of having to wade through the hierarchy.
- `appendChild()`
  - Use `appendChild()` and `.text` or `.innerHTML` instead of `+=` concatenation

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## DOM

- `getElementsByTagName("div")`
  - Search through all the `<id>` tags.

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