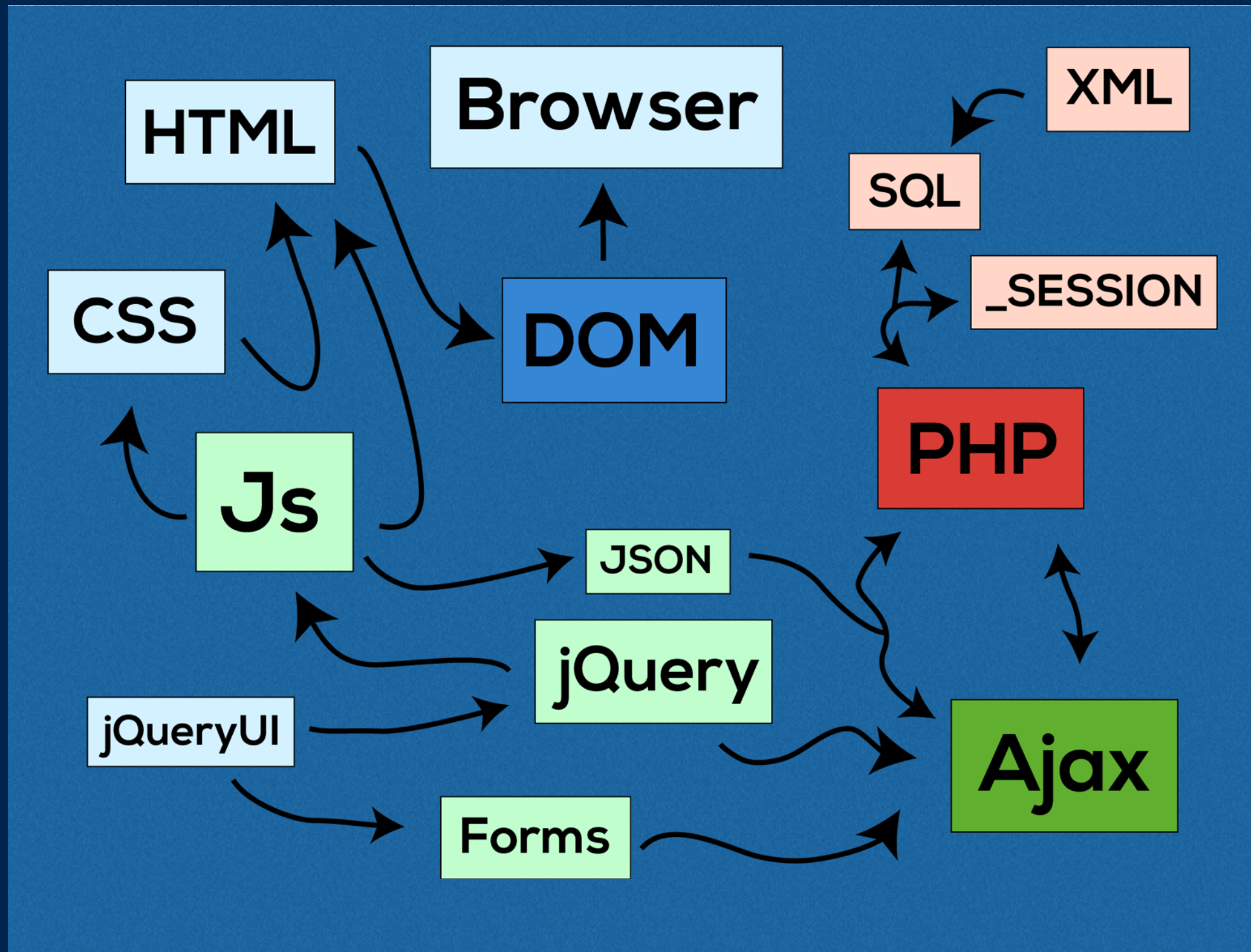# Language Cooperation in Web Development

Single page websites with Javascript, Ajax, PHP, MySQL, and XML

Stephen Burgess

"In the Meditations, Descartes dramatized the orientation of modern thought… Such a project was geared toward rendering the world as an object… Implicit and complicit in this reduction are the human reason's manipulation and control of nature in modern technology…"

Language Interactions

Definitions

D.O.M. - Document Object Model
HTML - HyperText Markup Language
CSS - Cascading Style Sheets
JS - JavaScript
jQuery - JS library used by >80% of 10k most visited websites
jQueryUI - Themable Widget Set built on jQuery
JSON - JavaScript Object Notation
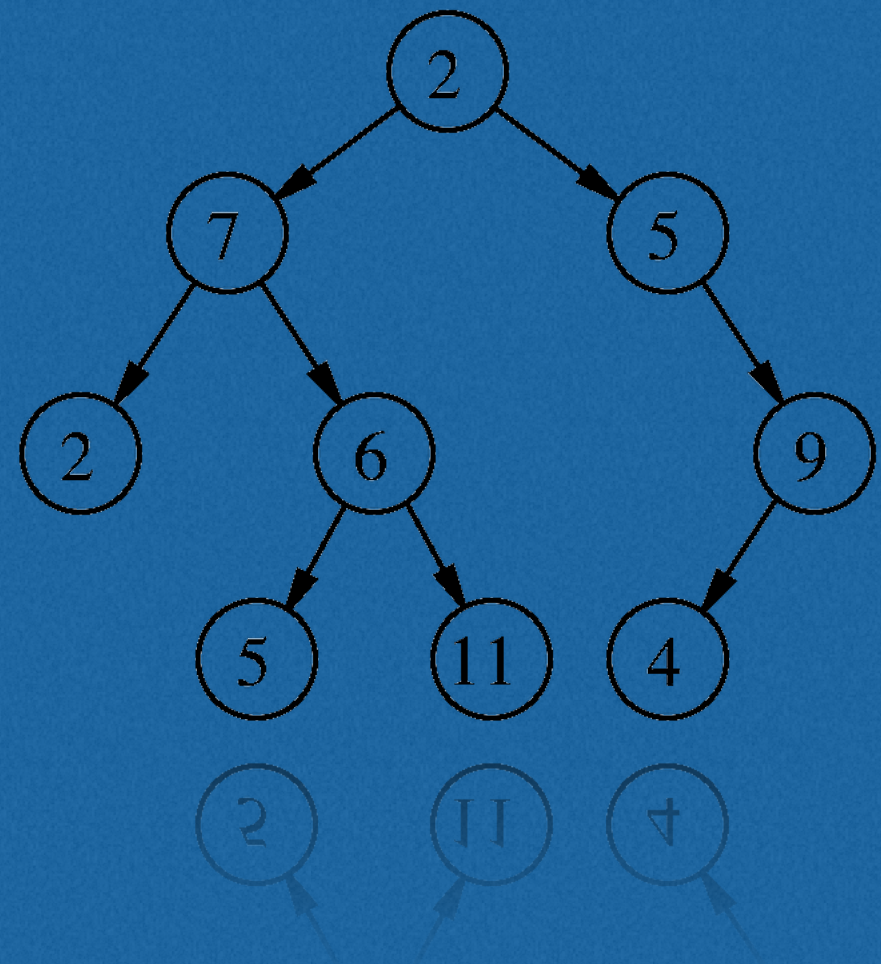Ajax - Asynchronous JavaScript and XML
PHP - "PHP: Hypertext Preprocessor" - server-side scripting
SQL - Structured Query Language
XML - Extensible Markup Language

D.O.M. Structure

- Root Node
  - Parent Node
    - Child Node
  - Parent Node
  - Parent Node
    - Child Node
      - Child Node

D.O.M. Structure

```html
<body>
       Primary Page Layout
 <!--       ===========================…-->
<div class="container">
  <header id="topbar" class="row"></header>
  <hr></hr>
  <!--  -->
<div id="mainStory" class="twelve columns border">
    <!-- -->
  <div id="storyHolder" class="eight columns">
    <article id="introDiv" class="story" style="display:block;"></article>
    <article id="helloDiv" class="story" style="display:none;"></article>
    <article id="setupDiv" class="story" style="display:none;"></article>
    <!-- Setup Form -->
    <article id="state00" class="story" style="display:none;" title="Inn Room">
     <p>
         You wake up in a small room in an inn. The morning…
       <a id="s01" class="move" href="#"></a>
      </p>
    </article>
  <article id="state00.0" class="story" style="display:none;" title="Inn Room"></article>
  <article id="state001" class="story" style="display:none;" title="Inn Room"></article>
  <article id="state002" class="story" style="display:none;" title="Inn Room"></article>
  <article id="state01" class="story" style="display:none;" title="Inn Dining Room"></artic
  <article id="state02" class="story" style="display:none;" title="Mysterious Woman"></arti
  <article id="state02c" class="story" style="display:none;" title="Mysterious Woman"></art
```

Forming HTML

```html
<article class="story" id="state00"
    title='Inn Room' style="display:none;">
        <p>You wake up in a small room in an inn.
        The morning light coming through the window
        just reached your pillow. The fire went out
        during the night and now the room is cold.
        <a class="move" href="#" id="s01">
        Go to the lobby?</a>
        </p>
</article>
```

Forming Ajax Calls

```javascript
function move() {
    $('.move').on('click', function (e) {
        e.preventDefault();
        var linkObject = $(this);
        var linkTarget = linkObject.attr("id").substr(1);
        $.ajax({
            url: 'php/move.php',
            type: "POST",
            data: {
                target: linkTarget
            },
            dataType: 'json',
            success: function (data) { ... } }); }); }
```

Forming Ajax Calls

```javascript
success: function (data) {
    document.getElementById("avatar")
            .src="images/"+data.avatar+".png";
    document.getElementById("state"+data.lastState)
            .style.display="none";
    document.getElementById("state"+data.state)
            .style.display="block";                                    }
```

Javascript

```javascript
success: function (data) {
    $("#actor").html(data.actorName);
    $("#type").html(data.type
            .charAt(0).toUpperCase()+data.type.slice(1));
    $("#state"+data.lastState).remove();
    $("#state"+data.state).show();                                    }
```
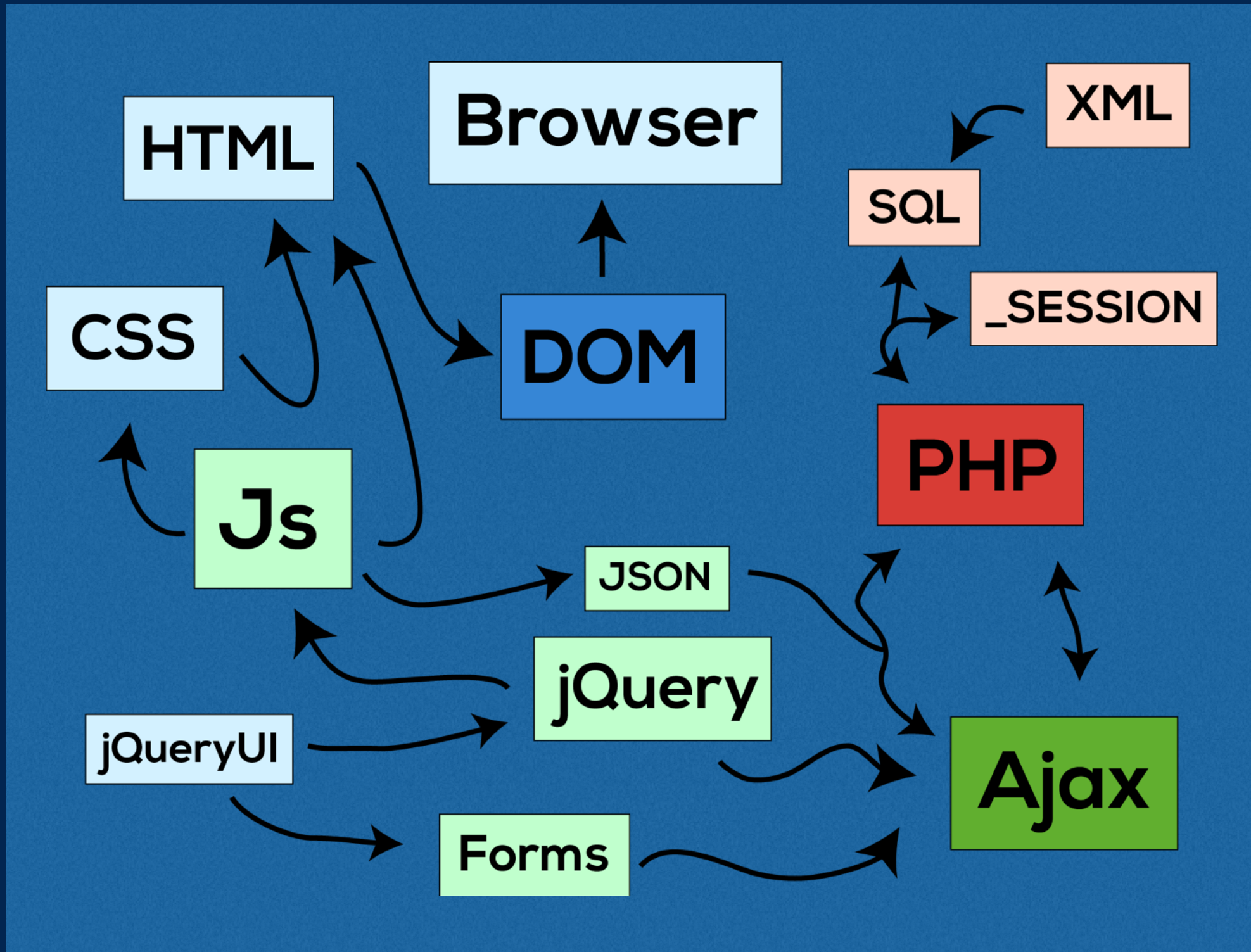
jQuery

String Manipulation
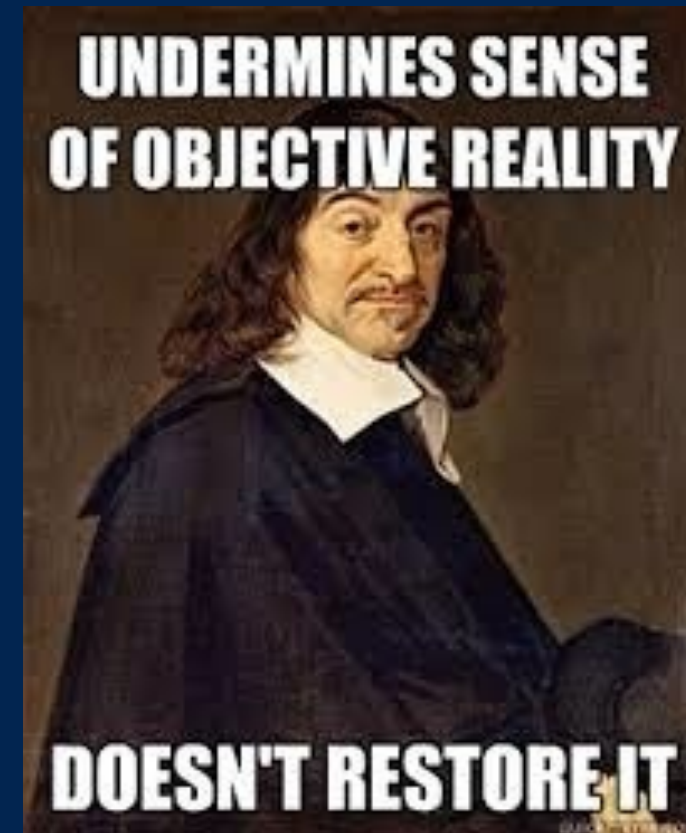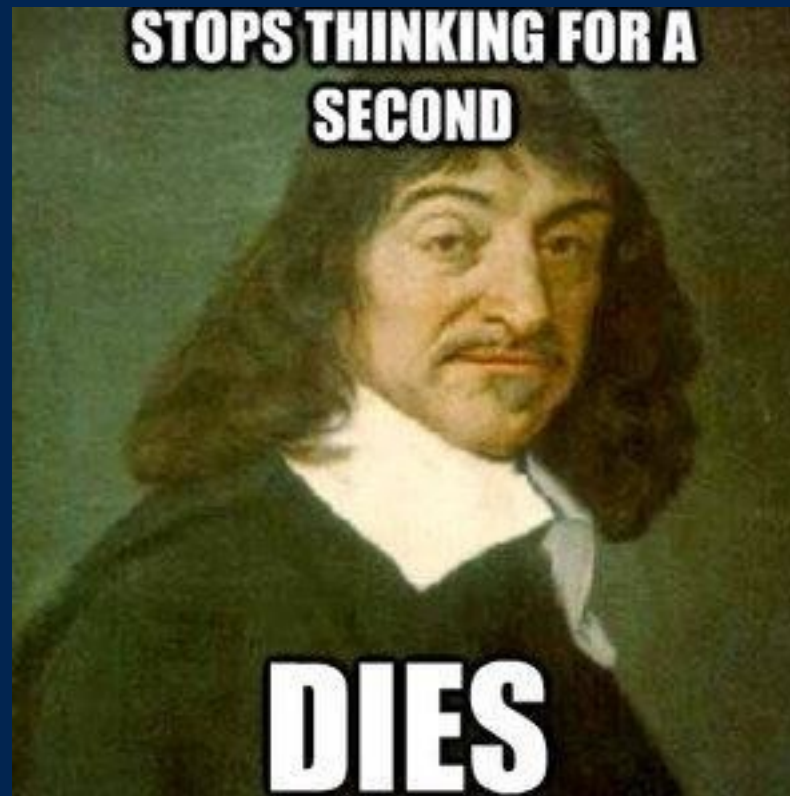
Forming PHP

```php
<?php                                          require 'actor.php';
    session_start();
    // Grab user object from secure session variable
    $user = unserialize($_SESSION['user']);
    // Set the 'lastState' to current location
    $user->lastState = $user->state;
    // Set the current 'state' of user to new location
    $user->state = $_POST['target'];
    // Moves time forward one unit
    $user->timeTick();
    // Update user object in session variable
    $_SESSION['user'] = serialize($user);
    echo json_encode($user);                              ?>
```

Language Interactions

Hatab, L.(1999). Object. In Dictionary of existentialism. Retrieved from http://ezproxy.purchase.edu:2048/login?url=http://search.credoreference.com/content/entry/gwexist/object/0

Triple-Bottom Line

People, Planet, Profit

1 Market	
2 Values	
3 Transparency	
4 Life-Cycle Technology	
5 Partnerships	
6 Time	
7 Corporate Governance	

Compliance	>>	Competition
Hard	>>	Soft
Closed	>>	Open
Product	>>	Function
Subversion	>>	Symbiosis
Wider	>>	Longer
Exclusive	>>	Inclusive