IT 2320 Assignment Instructions

### [Assignment 1 (HTML Review)](https://bblearn.tri-c.edu/webapps/assignment/uploadAssignment?content_id=_6250353_1&course_id=_50763_1&assign_group_id=&mode=view)

Create your own personal website for something you are interested in, using plain HTML.

Try practicing some of the techniques you learned in the video lectures combined with any ideas you may have for your page. You can use my GitHub code to give you ideas, but try to use your own creativity and coding style. When you are done, make sure you submit your properly on Blackboard:

* Click the bold header "**Assignment 1**"
* Choosing "**write submission**"
* **Paste the GitHub link** representing the location of your code
* Click **Submit**

You may follow this same process for all proceeding assignments.

### [Assignment 2 (CSS Review)](https://bblearn.tri-c.edu/webapps/assignment/uploadAssignment?content_id=_6250354_1&course_id=_50763_1&assign_group_id=&mode=view)

Take the code you wrote for Assignment 1 and upgrade it using the styling techniques you learned in class. Make sure to keep all of your CSS in a separate file, and do not put any CSS in the HTML file. Pay close attention to the examples and techniques described in the video lectures to guide you in upgrading your webpage.

### [Assignment 3 (JavaScript Review)](https://bblearn.tri-c.edu/webapps/assignment/uploadAssignment?content_id=_6250355_1&course_id=_50763_1&assign_group_id=&mode=view)

Take the work you have done so far in assignments 1 & 2 and add some substantial behaviors to the website using JavaScript. Try practicing some of the techniques you learned in the video lectures combined with any ideas you may have for your page. You can use my GitHub code to give you ideas, but try to use your own creativity.

### [Assignment 4 (Unobtrusive JavaScript)](https://bblearn.tri-c.edu/webapps/assignment/uploadAssignment?content_id=_6250357_1&course_id=_50763_1&assign_group_id=&mode=view)

* In this assignment, we will complete the website we have worked on up until this point. The content, styles, and behavior should all be in place. In this assignment, we will turn our attention to making sure all 3 layers of the HTML Technology Stack (HTML/CSS/JavaScript) are separated and unobtrusive. You should not have any JavaScript or Styles in your HTML. Our goal is to create a clean, readable, and efficient codebase that conforms with industry standards. You will use the techniques you learned in the video lectures to ensure that your HTML layer represents a minimalistic and semantically defined content area, your CSS layer should enable you to make precise changes to content styles, and your JavaScript layer should be properly scoped and bound to the appropriate elements of the DOM. This is the turning point in the course where we will really focus on quality code, not just functionality. With that in mind, please post questions and code examples early, so we have time to respond and give suggestions to improve. You may even want to turn in your assignment early so I can give you feedback and ask you to make improvements. If you watch the videos and take notes carefully it should not be a problem, but if you have any questions or confusion please open up a discussion on Black Board as soon as possible.

[**Assignment 5 (JQuery)**](https://bblearn.tri-c.edu/webapps/assignment/uploadAssignment?content_id=_6250356_1&course_id=_50763_1&assign_group_id=&mode=view)

* + First, make sure you have the latest version of the [Week 5 Folder](https://github.com/DonnieSantos/IT-2320/tree/master/Week%205%20-%20Introduction%20to%20JQuery) from [GitHub](https://github.com/DonnieSantos/IT-2320).
  + Open the CheckerBoard solution in Visual Studio by double-clicking the .sln file.
  + Run the project by hitting F5, or clicking the green "Start" button.
  + Study and familiarize yourself with the code before adding your modifications.

**When you are ready, your instructions are to use JQuery to implement the following requirements:**

* + If you click on an empty cell, nothing happens.
  + If you click on an occupied cell, select that cell and visually highlight it.
  + If you have a cell selected, the next cell you click on will receive the piece you chose to move.
  + If you move to the same cell you selected originally, the cell is deselected and nothing happens.
  + There are no rules for where you can move, and any piece existing on a cell you move to is destroyed.

<https://github.com/DonnieSantos/IT-2320/blob/master/Week%205%20-%20Introduction%20to%20JQuery/CheckerBoard%20(Solved)/CheckerBoard/Scripts/Home.js>

[**Assignment 6 (Object Oriented JavaScript)**](https://bblearn.tri-c.edu/webapps/assignment/uploadAssignment?content_id=_6250358_1&course_id=_50763_1&assign_group_id=&mode=view)

* + Your instructions are to create an object graph to represent your favorite sports team, cast of movie characters, or any other group of interesting objects. You must use a **JavaScript CONSTRUCTOR** to define object attributes, and to instantiate your objects, as demonstrated in the video lecture. You must also use the **JavaScript PROTOTYPE** property to define and invoke at least one object function. When you are done, write an extremely simple HTML document to show the contents of your object graph. Don't forget to invoke at least one object function you defined in the class prototype. Your method of accessing the JavaScript objects to put them on the screen is irrelevant, I simply want to see a **demonstrated understanding of JavaScript class definitions, instantiating objects, and invoking prototype functions**.

[**Assignment 7 (Working with JSON)**](https://bblearn.tri-c.edu/webapps/assignment/uploadAssignment?content_id=_6250359_1&course_id=_50763_1&assign_group_id=&mode=view)

* + Your instructions are to first craft your own data set using JSON format. You should do it by hand in notepad so that you get good practice writing JSON from scratch. Make your data set represent the structure of some content you want to display on your page. The data does not have to be extremely complex, but it should be significant enough to demonstrate mastery of JSON, for example, use some arrays and sizeable objects. Do not just copy and paste JSON and change the names and values; if you do this, you will have a very hard time actually learning it, and future assignments will be difficult. When you have your JSON object(s) ready, proceed to use JQuery to select elements in your HTML/DOM to display your data to verify the integrity of the object structure. The CSS layer is not necessary, but you may use CSS to make your page look nicer.

**\*\*If you receive a "Newtonsoft.json" error when trying to build/run a Visual Studio Solution, run the following command in the Visual Studio NuGet Package Console, as depicted in the screenshots below, and as described in this [StackOverflow Article](https://stackoverflow.com/questions/22507189/could-not-load-file-or-assembly-newtonsoft-json-version-4-5-0-0-culture-neutr" \t "_blank). \*\***

**Tools 🡪 NuGet Package Manager 🡪 Package Manager Console**

**🡪install-package newtonsoft.json -version “5.0.6”**

### [Assignment 8](https://bblearn.tri-c.edu/webapps/assignment/uploadAssignment?content_id=_6250360_1&course_id=_50763_1&assign_group_id=&mode=view) Attached Files:[[File](https://bblearn.tri-c.edu/bbcswebdav/pid-6250360-dt-content-rid-24861258_1/xid-24861258_1) PlayerInfo.txt](https://bblearn.tri-c.edu/bbcswebdav/pid-6250360-dt-content-rid-24861258_1/xid-24861258_1)[Open this document with ReadSpeaker docReader](https://bblearn.tri-c.edu/webapps/rs-readspeaker-bb_bb60/open.jsp?cid=cabne&lang=en_us&url=https://bblearn.tri-c.edu/bbcswebdav/pid-6250360-dt-content-rid-24861258_1/xid-24861258_1&rsurl=https://docreader.readspeaker.com/docreader/&course_id=_50763_1) (216 B)

* Download the [**Assignment 8**](https://github.com/DonnieSantos/IT-2320/tree/master/Week%208%20-%20Introduction%20to%20AJAX) code from GitHub.The solution is already set up with a front and back end to do most of the work. The back end has a small database of Cleveland Cavaliers players, and if provided with a player number, will respond with the player’s name. The tech specs of the back end are provided and documented in the Requirements folder. The tech specs, along with a screenshot example using the Advanced REST client, clearly demonstrate how to format a JSON request, and receive a JSON response. Your assignment is to use JQuery to capture the player number entered in the textbox on the screen, and when the user clicks the “Get Player Information”, use the JQuery ajax method to retrieve the player’s name upon receiving the response from the server. If the number entered does not exist in the database, you will receive an error message. Either way, you will indicate the player’s name and number, or the error message, in the red output box on the screen.

(attached is a copy of the data in the back end database, but you should NOT have to look at any of the C# back end code)

### [Assignment 9](https://bblearn.tri-c.edu/webapps/assignment/uploadAssignment?content_id=_6250362_1&course_id=_50763_1&assign_group_id=&mode=view)

* Select one of your previous labs, preferably the one that you think looks the best, and make it responsive so that it looks great on a smartphone in portrait mode with media queries. It should look the way it used to, but just have a more compact look and feel when the screen width shrinks down to 320 pixels.  In addition to performing media queries based on size and color, you should include at least one layout-based media query such that the physical position and layout of items changes in phone portrait mode. If none of your previous labs seem to have content that is conducive to demonstrating changing a page layout for a smaller form factor, you should create a new example instead, so as to demonstrate your mastery of media queries and making a site that adapts to both computers and smartphones.

**Assignment 10**

### Start Final Project

### The week when we "**Begin the Final Project"**, you may turn in whatever you have at the end of the week for full credit (20 points) for **Assignment 10**. It does not matter how much you have done, just show that you have made some progress.

<https://github.com/DonnieSantos/IT-2320/tree/master/Week%2010%20-%20Final%20Project>

<https://github.com/DonnieSantos/IT-2320/tree/master/Week%2010%20-%20Final%20Project/FinalProject/Requirements>

### [Assignment 11](https://bblearn.tri-c.edu/webapps/assignment/uploadAssignment?content_id=_6416451_1&course_id=_50763_1&assign_group_id=&mode=view)

**Complete the assignment by following these instructions:**

* One very common experience in Flash is a [2-Dimensional Image Carousel](http://www.codeproject.com/KB/WPF/Wpf2DImageCarousel/ScreenshotMain.png). Your employer has recently asked you to do a research project to see if this same user experience can be achieved using HTML Canvas. Your job is to produce a working prototype that achieves the following minimum requirements:
  + Carousel spins left and right only, it should never move vertically.
  + After release, it will gradually slow down until it stops moving completely.
  + The harder you spin it, the faster it will initially move after releasing it.
  + Carousel will snap to the middle of the closest image when it finally stops.
  + The selected image will always be slightly larger than the other images.
  + Motion should be smooth and continuous throughout the application.
  + You may use your own images, but make them all the same size for simplicity.

**Note** -- You do not need to do any complex mathematics for this assignment. If you maintain a simple integer variable as the velocity, you can use that number to gradually translate the images on the screen horizontally, and over time keep reducing the velocity after the mouse is no longer being held down. This will generate the “slowing down” effect until velocity reaches zero.

**ALTERNATIVELY - Since some people in the past have had trouble with this assignment, I will leave you the option of doing anything you want using HTML 5 Canvas as long as it is comparable in complexity and demonstrates and understanding of the concepts from the lectures and code examples.**

<https://github.com/DonnieSantos/IT-2320/tree/master/Week%2011%20-%20HTML5%20Canvas/Example4>

### [Assignment 12 (CSS3)](https://bblearn.tri-c.edu/webapps/assignment/uploadAssignment?content_id=_6422301_1&course_id=_50763_1&assign_group_id=&mode=view)

* This week's assignment instructions are very flexible, so that you have more time to work on your final project. Please do some experimentation with Font Face and CSS Animations. I am not going to specify how complex your content has to be; I will leave it up to you. The only thing I ask is please give an honest effort to explore the various types of animations in CSS3 instead of doing the bare minimum. I wouldn't spend more than a couple of hours on this, but try and spend some time producing some interesting UI behavior using CSS3, and at the very least demonstrate the ability to use CSS3 2D Transformations and Custom Fonts using Font Face.

### [Assignment 13 (Angular.js)](https://bblearn.tri-c.edu/webapps/assignment/uploadAssignment?content_id=_6430588_1&course_id=_50763_1&assign_group_id=&mode=view)

[Assignment 13 - Angular.js](https://github.com/DonnieSantos/IT-2320/tree/master/Week%2013%20-%20Introduction%20to%20AngularJS" \t "_blank)

I have written a simple back-end that provides a service called "Home/GetBattingOrder". The response never changes, it's always the 1995 Cleveland Indians batting order in JSON format. The goal of this assignment is to call this service using JQuery AJAX,  and use an **AngularJS ng-repeat directive** to display the results inside the response.

As usual, all of the [starter code](https://github.com/DonnieSantos/IT-2320/tree/master/Week%2013%20-%20Introduction%20to%20AngularJS) is written for you, and I have actually written all of the JavaScript for you. Just read the JavaScript I have written in **Home.js**, and you should be able to complete the assignment by modifying **only** **the Home.cshtml** file. Be careful though because you will really need to understand Angular to make it work, so make sure you study all of the other examples first.

I have a solution that I will provide after I have graded all of your work.

**PS - Don't forget to re-clone the repository as I've made recent changes to this assignment.**