**Final Project, IT-238, Fall Quarter 2020**

Among the buzzwords that frequently shows up on job descriptions and in interviews is "self-learner". This is particularly true in the current age of automation and ever-advancing technology. To this end, it is a great skill to train ourselves to learn on our own.

In this era of the COVID pandemic, I have found myself assigning a few of these – and several students I have spoken to have told me that they have found it very satisfying. However it is definitely one of those kinds of things in which "you get out what you put in." That is, the more genuine effort you put in, the more pleased you are likely to be with the results, and the more you will learn. In programming, some of the best learning you will ever do will come from studying new techniques out of books, the web, or other people's code.

For this project, I will have you study a few relatively short sections out of the course textbook. I realize that a number of you have not purchased it, but the book is available as a resource on the DePaul library website. Look for "Safari Books Online" and search for the textbook: "*JavaScript & jQuery: The Missing Manual, 3rd Edition* " For this reason, I will attempt to be as explicit as possible on the techniques I would like you to investigate so that you can look them up from other online references such as MDN or W3 Schools. In fact, I realize that many of you will probably use those sites exclusively – which is fine.

**Academic Integrity:** This is an exam! In other words, you MUST work on your own. Any resources such as tutors or other students is plagiarism. This, of course, includes those “tutorial” sites that are out there. If this is detected (and I have my ways!!) I’m afraid that the consequences will be severe. I *really* want nothing but the best for all of you. However, because it is very important for me to ensure that all students are treated fairly, any detections of plagiarism / cheating in any form, will receive a 0 on the exam, and an F in the course. A formal report will also be filed with the Academic Integrity Committee.

**The Assignment**

You will simulate a hotel reservation page. Have fields for

* Full Name (text field)
* Email (text field)
* Arrival Date (Date Picker) 🡪 see below
* Departure Date (Date Picker)
* Type of Room: Select box with options for Regular ($150 per night), Deluxe ($240 per night), Suite ($400 per night)
* Number of guests: Select box with options for 1 through 5. (For purposes of this exercise, we will not worry about adults v.s. children or number of beds).
* Button to submit the reservation.

You should have a button that invokes a script that tells the user how much their reservation will cost. Multiply the nights by the type of room they wanted. Also, for every person beyond 1, add an additional $25 per night.

**Example:** A user reserves a suite room ($400 per night) for 3 nights, and will have one extra person. So the cost would be (400 per night \* 3 nights) + (1 additional guests\*25\*3) = $1275

**Date Picker:** Be sure to use this particular jQuery tool. HTML-5 does include a 'date' field, but it is not quite as robust as jQuery's version, and does not offer as many options.

* Set the 'mindate' to ensure that the user does not pick a day before the current date
* Set the 'maxdate' to ensure that the user does not select an ending date more than 7 days after the mindate.
* Demonstrate usage of at least one additional property. You may pick any that interests you.
* The book goes into detail, but here is an online link discussing Date Picker usage: <https://www.geeksforgeeks.org/jquery-ui-date-picker/>

**Select box for number of guests**:

* For select boxes, jQuery allows a 'ui' (for 'user index') that automatically assigns a number to each item of the select box. This works just like an array. For example, if the user selects the first item in the select box (e.g. 1 guest), then the code: ui.selectIdentifier.index would be assigned a value of 0. (Recall that indexes in arrays start at 0). If the user selects the 4th item (i.e. 4 guests), then the ui.selectIdentifier.index would return a 3.

**You Choose!**

* Another important component of building real programming chops in doing your own research into what is "out there". The third research requirement for the coding part of this project is for you to do a little bit of investigation into features that are available to you. Your choice does not have to be limited in jQuery. If you find an interesting "pure" JavaScript technique that is fine. Choose something that seems interesting. One tip: Sometimes a seemingly simple technique can lead you down a rabbit-hole of complications! So don't get too ambitious. Or if you get lost, you can comment out the section and explain what you tried (see below).

**Thoughts on the Techniques:**

* One challenge facing web developers is staying on top of the ever-changing technologies. Do a little bit of research and include a short (1-2 paragraphs max) discussion of your thoughts on the jQuery Date Picker tool. What seems to be the current thinking about this tool? Would you use it if this were a real world web page? To keep things simple, simply write your thoughts at the bottom of your web page as a block comment. You can place them after the closing </html> tag on your page.

**If you are stuck**: This is a personal project, so seeking assistance either in person or online is not allowed. However, if you can not get all of the functionality to work, don't panic. You may not receive full points, but if you leave your code showing what you tried in a commented block and clearly explain exactly where you got stuck, the deduction will not be significant. That being said, if you do this for multiple requirements, then that will be suggestive of either lack of effort or lack of ability. So while I will always try to give the benefit of the doubt when possible, it will have its limits!

**Percentage of Course Grade**: This will be in place of your final exam, and will therefore be 20% of y our total course grade.

**Submission**:

1. Submit your HTML and any additional files (images, CSS files, etc) a zip file to the **Final Project** folder on the submissions page of D2L.

**DUE DATE**: I am giving you nearly a full week to do this. However, because I need time to grade these and get your grades posted, there is a HARD deadline as indicated of of November 23rd at 11:59 PM Central Time.

**Questions?** I hope the instructions are clear, however, if something is not, or if you spot any errors, please post to the discussion group so everyone can benefit!