# *Web Programming V (420-C50-HR)*

# *Assignment 1 –AJAX using JavaScript and jQuery*

Date assigned: Tuesday, September 19, 2017

Date due: **Tuesday, October 3, 2017**

**Learning Objectives**

Upon successful completion of this assignment, the student will be able to:

* Use AJAX to retrieve a file
* Use JavaScript/ jQuery to navigate an XML file

**Setup**

You can use any editor of choice, but tell me what you used when you hand the assignment in.

Create a new folder called *username*\_C50A01.

Add the files in C50A01\_Files folder to your project.

**Marks**

You can use any editor of choice, but tell me what you used when you hand the assignment in.

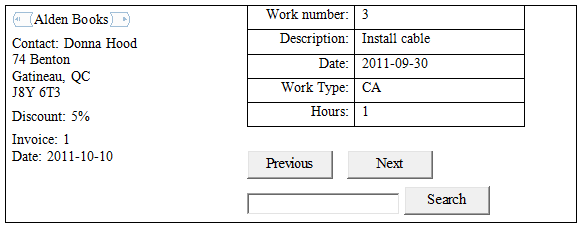
To do:

**Part A – XML File Navigation (jQuery)**

Create an HTML/jQuery file which reads in the invoice.xml file and displays one work record at a time for a given client.

1. Open the clients.xml file and use jQuery get to read in the list of clients and the name of the corresponding invoice file.
2. Create and display a drop down list that allows the user to select a client from the clients in the clients.xml file (Note: I will be using a different file than you so do not hardcode things). All drop down lists MUST be sorted alphabetically.
3. Use jQuery get to read the appropriate XML file depending on the client selected and the value in the clients.xml file.
4. Display the client and invoice information on the screen including the client’s discount.
5. Display the first work record from the appropriate invoice file.
6. Provide buttons/labels/links for the user to navigate forward and backward in the file one work record at a time. Provide functionality that loops back to the beginning when the end is reached and to the end when the start of the file is reached.
7. When the user changes the customer, read in the other customer’s invoice file and display it.
8. Sort the workRecords by workNumber.
9. Provide a text box with a Search button that will search the XML file for a specific work number (include error checking so it is not blank). When the user enters a number and presses the search button search for and displays the record of the corresponding workNumber. If there is no matching workNumber display an error message.

Hint: You can have different requests at the same time as long as they are assigned to different event handlers.



**Part B – Continuous Scroll**

In this portion of the assignment you will be creating a continuous scrolling page. You will display the records from users.xml. This file contains 1000 records but you can only load a maximum of 50 records at a time. I have provided a simple PHP program to read the records for you.

You must do the following:

1. When the program first starts, use an asynchronous request to the php program getUsers.php to display the first set of records. The number of records you display is up to you, but must be only slightly more than the size the screen will allow to a maximum of 50 records.
2. Set up event handler(s) on the scroll event to manage the person scrolling using the mouse OR FINGER through your list. When the person scrolls near the bottom of the list, (asynchronously) request the next set of records using getUser.php. If the user scrolls up the list, (asynchronously) request the previous set of records using getUser.php. With the exception of slow network response, the user should never have to pause their scrolling.
3. Display all the relevant information for each user (not the ID for example), nicely formatted. Remember this is a list, so you should not display one user at a time.
4. There are marks for design and mobile design at all the relevant bootstrap breakpoints.
5. There are marks for efficiency, robustness and overall good coding practices (variable names and declarations, etc).

NOTES:

1. You are welcome to use jQuery to call getUsers.php (although not required to). However, you may NOT use any of the plethora of jQuery infinite scrolling libraries like jscroll, iscroll, infinity, etc
2. Calling getUsers.php.
   1. The file must be called with a GET request.
   2. There are two parameters sr for starting record and c for count. If sr is omitted it defaults to 1. If c is omitted it defaults to 25. If c=0 or >50 it is set to the default value of 25. See below for c<0.
   3. The program returns the number of records specified in ‘c’ or the default starting at ‘sr’ or the default.
   4. If c is negative, the program returns the records ENDING with the starting record (sr).
   5. Examples:

getUsers.php returns the first 25 records (both defaults applied)

getUsers.php?sr=50, returns records 50 to 74 (25 records starting at record 50)

getUsers.php?sr=50&c=40, returns records 50 to 89 (40 records starting at record 50)

getUsers.php?c=100, returns records 1 to 100 (100 records starting at record 1)

getUsers.php?sr=50&c=-10, returns records 41 to 50 (10 records ENDING at record 50)

* 1. If you want to return only one record at a time, set the count (c) to -1

1. iPhone does not handle finger scrolling well. You do not have to compensate for that piece of trash any way.

**To submit**

When you have completed the assignment, submit a zip file (***username*\_C50A01.zip**) with all the files from the document folder to the Moodle page for this course. Remember: You MUST include a file called readme.txt that states what tool you used to complete the project.