Module: COM601 / crn: 68818

Rich Internet Application Development

Dr Peter Nicholl

Final Year - Assignment 1

BSc (Hons) Interactive Multimedia Design **BSc (Hons) Information Communication Technology**

Date set: 30th September Online Submission: Noon on 1st November (Note: No paper-based materials will be required – all materials and administration will be electronic.)

Contribution towards coursework marks: 35% (and scored out of 35 marks) Approximate time to be spent: 35 hours (over and above textbook reading time)

Keep a copy of all submitted coursework – i.e. your computer files.

Learning Outcomes: To develop expertise in using HTML5, CSS and jQuery (including plugins) to develop a themed rich internet application with a range of interactive features.

Code files and log showing use and understanding of jQuery / jQuery UI

This assignment is focused on learning jQuery (including plugins) and building demonstrator components into a rich internet application (i.e. a single web page application) to demonstrate a range of jQuery features.

Over the 3.5 weeks of this assignment it is assumed that your main web page (iguery demos.html) will evolve from a simple starting point to a page with an impressive set of features demonstrating some of the capabilities of jQuery. The aim is to manage your learning of jQuery and build up your knowledge of what is possible using this framework. Each week you should be able to incorporate a few additional jOuery features (using plugins where appropriate – normally from ¡Query UI) into your website, in line with your directed reading of Head First ¡Query. (Keep a close eye on the guidance about reading under the weekly 'Independent Study' heading.) As the weeks progress, retain the features you have developed in earlier weeks, so the final web page is your cumulative work.

As mentioned above, you will be given week-by-week reading guidance for the Head First jQuery text, so that your independent study, assignment work, practical work and the lectures will be closely bound to one another.

You should incorporate jQuery / jQuery UI (etc.) components that as clearly, imaginatively and attractively as possible demonstrate the following:

Use of HTML5 elements Use of jQuery selectors to add and remove classes Adding elements directly into the DOM

Adding css
Tabs
Accordions
Hide/Show/Fade/Toggle capabilities
A menu with at least one submenu
Event Handling
Tooltips
Animation effects (must use jQuery animate() method)
Image and slideshow presentation
Automatic construction and population of (1) a list, (2) a table and (3) a select element

You are encouraged to go beyond this set of features/capabilities to develop and demonstrate in your assignment as extensive a practical knowledge of jQuery/jQuery UI as you can.

assignment_1_starter.html is provided on the assignment page to provide you with a possible starting point for your own 'jquery_demos.html' file (see below). Use of this is completely optional and you are free to copy, modify and change the design or all of the code in assignment_1_starter.html.

If all the required code features are clearly present (see list above and the template feedback sheet at the end of this document), you will achieve at least a pass mark. However, to achieve a higher mark, you should demonstrate the depth of your understanding by making your web site more interesting and distinctive. You are required to give it a theme, such as information about a hobby, a sports club, famous people or locations known to you. Please keep the amount of text in descriptions fairly brief – the marker is mainly interested in your jQuery/plugin/CSS usage. If you can incorporate a little fun element, e.g. an amusing animation or basic game, that will stretch your use of jQuery / jQuery UI (etc.) this will be reflected in higher marks.

In addition to coding the rich internet application (RIA), a written document is also required. At least once each week (but more frequently is advised) you should add clearly dated material to a log file (just use Word or similar to write it) in which you describe the specific features you have added to your RIA, their location in your code (just enough to help the marker navigate your html, js and css files), and explain in general terms how the features work (i.e. explain in English how the jQuery / jQuery UI works – only copy in key (short!) pieces of code to help make your explanation clear) and note any other major changes to your webpage.

The length requirement for the log entry for each week is about 2-3 pages, so the total length of the log by the submission date will be between 7 and 11 pages. It is ok to include screenshots where they clarify your written text. (Please use a 12 pt font at 1.5 line spacing, and avoid large empty areas on a page.)

Here is some old but very important advice:

Be careful to backup your work frequently on reliable media.

Assessment Criteria

The final page of this document is an annotated version of the feedback file that will be completed and returned to you by email. The top part will be used as a basic checklist to note the presence or absence of the requested jQuery features. The marks will be allocated as shown in the centre of the page, and comments specific to your work will be added in the lower third of the page. Please read the text currently under the feedback comments section. It is there to give you further guidance about what is being looked for in this assignment.

Submission Details - note that only electronic documents are involved

By the deadline of noon on 1st November you must make available on your SCM web site the 3 files (plus related subfolders) described below. Failure to have the materials online will treated as a non-submission.

In access.html on your SCM site (as you will have developed according to instructions in practical 2):

- (1) The assignment 1 link marked 'Live web site' should point to a single web page stored as 'public_html/workspace/COM601/assignment_1/jquery_demos.html'. You are encouraged to use subfolders within the assignment_1 folder where 'scripts' should hold one or more js files, 'styles' should hold one or more css files and 'images' should hold any jpg, png, etc. files.
- (2) The assignment 1 link marked 'log.pdf' on your access.html page should similarly point to your log.pdf file in folder assignment_1 note that no other names or formats will be acceptable.
- (3) The assignment 1 link marked 'Timestamp' should link to an image file named timestamp.jpg showing the initial appearance of your web site with the date and time on the www.bbc.co.uk/news/ page also clearly visible.

It is your responsibility to test **over the web** that your access.html page and the button links specified above lead correctly to the files named (exactly!) jquery_demos.html, log.pdf and timestamp.jpg.

Anti-plagiarism Measure

In the interests of avoiding plagiarism, you are strongly advised not to make your jquery_demos.html, log.pdf files or related subfolders easily visible on the web until just before submission – you will be guided how to do this.

On the Assignments link in the COM601 web site, a statement concerning plagiarism is shown. Before you submit your coursework you must read this material and you will be deemed to be in agreement with the declaration there that your coursework is all your own work. Where you have incorporated jQuery / jQuery or other freely available code libraries, as long as you retain any copyright or other statements concerning authorship contained in them, you will not be open to the charge of plagiarism.

This is the template file that will be used to provide you with feedback.

Student Name: Name

Presence of code features

Use of HTML5 elements		Present/Absent	
Use of jQuery selectors to add and remove classes		Present/Absent	
Adding elements directly into the DOM		Present/Absent	
Adding css		Present/Absent	
jQuery UI Tabs		Present/Absent	
jQuery UI Accordions		Present/Absent	
Hide/Show/Fade/Toggle capabilities		Present/Absent	
A menu with at least one submenu		Present/Absent	
Event Handling		Present/Absent	
Tooltips		Present/Absent	
Animation effects (must use jQuery animate() method)		Present/Absent	
Image and slideshow presentation		Present/Absent	
Auto construction & population of list, table & select elements		Present/Absent	
Code Range / use and quality of jQuery / jQuery UI / other plugins	High	Low	/ 20
Weekly log comments			
Range of jQuery items and Evidence of understanding	High	Low	/ 10
Quality/completeness of CSS	High	Low	/5

Total Marks:

XX

out of a possible 35

Feedback comments

(The following are considerations that will be commented on, and are set out here as additional guidance on the level of work expected.)

What level of overall effort is evident? How impressive or otherwise is the set of jQuery / jQuery Ui features (inc. css) included? Note any omissions from the set of required features and/or features beyond the ones explicitly mentioned in the assignment spec. Is the code well laid out, elegantly structured and with appropriate naming, suitably indented and with helpful comments?

Is the log clearly presented, well written, of suitable length with a good level of detail and showing a good understanding of the code features (and css where relevant)? Does the log show enthusiasm and interest or does it convey limited interest and/or minimal effort? Any other relevant comments.