Module COM554 (35880) October, 2017

Interactive Web Computing Dr Haiying Wang/Richard Davies

Final Year - Assignment 1

BSc (Hons) Computing Science
BSc (Hons) Software Engineering

Date set: Monday 2nd October Hand-in: midnight on Sunday 5th November

Contribution towards coursework marks: 50% (and scored out of 50 marks)
Approximate time to be spent: 60 hours (please note that this includes time for independent study and text book reading)

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

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

This assignment is focused on learning jQuery (do **not** use a front-end framework such as Bootstrap or the jQuery UI library) and building demonstrator components into a rich internet application to demonstrate a range of jQuery features. This will result in the production of code files, a screencast and a technical log showing use and understanding of jQuery.

Over the 5 weeks of this assignment it is assumed that your jQuery web page will evolve from a simple starting point to a page with an impressive set of features demonstrating various capabilities of jQuery. The aim is to demonstrate your learning of jQuery and build up your knowledge of what is possible using this client-side framework. Each week you should be able to incorporate a few additional jQuery features into your website, in line with your directed reading on jQuery. (Keep a close eye on the guidance 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 jQuery text, so that your independent study, assignment work, practical work and the lectures will be closely bound to one another.

PART A: Coding a Rich Internet Application

You must give your site context, such as information about a hobby, a sports club, famous people or locations known to you. You should incorporate jQuery components as clearly, imaginatively and visually attractively as possible demonstrating each of required code features:

Table 1: Required Code Features

1	Use of jQuery selectors to add and remove classes
2	Adding elements directly into the DOM
3	Adding HTML5 elements
4	Adding css
5	Tabs
6	Accordions
7	Hide/Show/Fade/Toggle capabilities
8	Menus (not simply select elements)
9	Event Handling
10	Tooltips
11	Basic animation effect
12	Automatic construction and dynamic population of: (a)list (b)table (c)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 as you can. You should demonstrate the depth of your understanding by making your web site more interesting and distinctive. If you can incorporate more complex functionality, e.g. an animation, validation or a basic game that will stretch your use of jQuery this will be reflected in higher marks.

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.

Note: No plugins are allowed because the aim of this assignment is to for you to develop a detailed from-the-ground-up knowledge of how to code using jQuery. (Later in the module you will be encouraged to use plugins.)

PART B

Technical Log Report

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 technical 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 and CSS 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 technical log entry for each week is about 1 page, so the total length of the log by the submission date will be between 4 and 6 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.). It is recommended to include a summary table outlining the code examples of where each requirement can be found as illustrated below.

Table 2: Code examples of where each requirement can be found

Requirement	Filename	Relevant Line of Code
1 Use of jQuery selectors to add and remove classes.		
2 Adding elements directly into the DOM		
3 Adding HTML5 elements		
….		
Additional functionality		

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 marks will be allocated as shown in the table 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 midmight on Sunday 5th 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 be treated as a non-submission.

In access.html (Figure 1) 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/COM554/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 'technical_log.pdf' on your access.html page should similarly point to your 'technical_log.pdf' file in folder assignment_1 – note that no other names or formats will be acceptable.

(3) A short 2-minute screen cast video named 'video.mov' on a button called 'Video Overview'. This video should show dynamically the features you have created as well as a clear readable view of the code that makes the features work.

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 and technical_log.pdf.

Figure 1: Overview of Assignment 1 Access Page

The public_html/~B00xxxxx/workspace/COM554/assignment_1/ folder will be made read-only by the Technical Service Engineers after the deadline and you will not be able to add or change the code from that point.

Anti-plagiarism Measure

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

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

Student Name: Name

Code Presence of required code features Range and quality of jQuery code features Additional functionality	/30
Style and Layout Quality/completeness of CSS	/5
Weekly technical log comments and Video Review Overview of the range of jQuery features Evidence of understanding	/15
Total Marks: XX out of a possible 50	

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 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 theme consistent?
Is the technical log clearly presented, well written, of suitable length with a good level of detail and showing a good understanding of the jQuery 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. Does the video review show the code features? Is the code implemented visible?