|  |  |  |
| --- | --- | --- |
|  | **Faculty of Computing, Engineering and Science** | Final mark awarded:\_\_\_\_\_ |

**Assessment Cover Sheet and Feedback Form 2017/18**

|  |  |  |  |
| --- | --- | --- | --- |
| Module Code:  IS3S664 | Module Title:  Adv. Int. & Mob. Computing | | Module Lecturer:  Keith Norris |
| Assessment Title and Tasks: jQuery, & Data sources  (Set Tasks - not-time constrained 1) | | | Assessment No: 1 |
| No. of pages submitted in total including this page:  65 | | | Word Count of submission  (if applicable): Completed by student |
| Date Set:  30/10/2017 | | Submission Date:  Friday 15/12/2017 | Return Date:  2/2/2018 |

|  |  |
| --- | --- |
| ***Part A: Record of Submission (to be completed by Student)*** | |
| **Extenuating Circumstances**  If there are any exceptional circumstances that may have affected your ability to undertake or submit this assignment, make sure you contact the Advice Zone on your campus prior to your submission deadline. | |
| **Fit to sit policy**:  The University operates a fit to sit policy whereby you, in submitting or presenting yourself for an assessment, are declaring that you are fit to sit the assessment. You cannot subsequently claim that your performance in this assessment was affected by extenuating factors. | |
| **Plagiarism and Unfair Practice Declaration:**  By submitting this assessment, you declare that it is your own work and that the sources of information and material you have used (including the internet) have been fully identified and properly acknowledged as required[[1]](#footnote-1). Additionally, the work presented has not been submitted for any other assessment. You also understand that the Faculty reserves the right to investigate allegations of plagiarism or unfair practice which, if proven, could result in a fail in this assessment and may affect your progress. | |
| **Intellectual Property and Retention of Student Work:**  You understand that the University will retain a copy of any assessments submitted electronically for evidence and quality assurance purposes; requests for the removal of assessments will only be considered if the work contains information that is either politically and/or commercially sensitive (as determined by the University) and where requests are made by the relevant module leader or dissertation supervisor. | |
| **Details of Submission:**  Note that all work handed in after the submission date and within 5 working days will be capped at 40%[[2]](#footnote-2). No marks will be awarded if the assessment is submitted after the late submission date unless extenuating circumstances are applied for and accepted (Advice Zone to be consulted). | |
| You are required to acknowledge that you have read the above statements by writing your student number(s) in the box: | Student Number(s):  14568811 |

**IT IS YOUR RESPONSIBILITY TO KEEP RECORDS OF ALL WORK SUBMITTED**

|  |
| --- |
| **Part B: Marking and Assessment**  **(to be completed by Module Lecturer)** |
| This assignment will be marked out of 100%  This assignment contributes to 50% of the total module marks.  This assignment is bonded / non- bonded. Details : **You must achieve 40% overall to pass the module** |
| **Assessment Task:** See description attached |
| **Learning Outcomes to be assessed** (as specified in the validated module descriptor <https://icis.southwales.ac.uk/> ):  To demonstrate a critical understanding of the prevailing technologies associated with the development of web-based and mobile applications.  To be able to critically evaluate the various technological options available for diverse web-based and mobile development. |

**Grading Criteria and Feedback**

|  |  |  |
| --- | --- | --- |
| **Marking Scheme** | **Marks Available** | **Marks Awarded** |
| Client & Server-side logic (PDO/XML processing & JSON) to display suitable HTML tables | **25** |  |
| Client & Server-side logic (PDO/XML processing & JSON) to append new element values to the original database table or XML file | **25** |  |
| Client-side logic (PDO/XML processing & JSON) to search for specified contents | **25** |  |
| Report | **25** |  |

# ASSESSMENT - DETAILED REQUIREMENTS

**The following is an outline of the requirements of the task. You MUST clarify any uncertainties with module lecturers**

You are required to produce web based files to present a single html web page to a client browser demonstrating JavaScript/Ajax techniques associated with:

* PHP PDO processing;
* JQuery framework;
* XML & JSON;
* CSS.

Two data sources are available on a Web Server:

* MySQL database tables (Zero or more tables);
* XML files (Zero or more files) stored in a specific folder.

The html web page provides the user with the means to select the data source (Database or XML). Having chosen the data source, the user is presented with a list identifying the available database tables or XML files. Selecting a specific database table or XML file must cause the display of the associated data as a HTML table on the same web page without refreshing the whole web page.

Drop-down list boxes are to be used to permit the user to select the data source and present the list of available database tables or XML files to the user. The latter drop-down list box contents must reflect the database tables or XML files presently available on the Web Server without further web development amendments i.e. available database table names and XML filenames must not be hardcoded into the web page. This information must be obtained at run-time after the web page has been loaded and the information must be returned as JSON.

The web page layout must be similar to the following:

Table (Only available once a database table or XML file is selected)

Data set Drop-down box (Only available once a data source is selected)

Insert functionality (Only available when table is visible)

Footer

Search functionality (Only available when table is visible)

Data source Drop-down box

Header

There is no specific single theme to the contents of the database tables and XML files. Do not design a web page which reflects a single theme such as films, sport or other single topic.

The database tables must comprise an autoincrement numeric field and one or more string fields. No other data types may be employed and each table must comprise a different number of fields and fieldnames.

The XML files must comprise zero or more of the same child elements. Each of these elements must comprise a number of further child elements e.g. w3school’s CD catalog XML file.

Essentially the database table and XML file structures described above represent zero or more rows of data in which the structure of each row is the same as any other row.

Upon receiving the returned JSON, the web page should construct appropriate html markup for rendering. You should not use TableSorter2 in this cw or similar components.

The contents of the data source drop-down list box is fixed but the drop-down list box presenting the list of database tables or XML files and subsequent table must be populated as necessary using JQuery techniques. All Client to Server interactions must utilise getJSON and all data returned by the Server must be in a JSON format.

The user must be provided with the means to:

* view a data set (database table or XML file, including field headings), once a table or file has been selected;
* append new data to the selected database table or XML file. This will require form input fields and php script logic to insert the new detail into the relevant database table or XML file.
* search the currently selected data set for a specific field’s content so that only those rows/records satisfying the selection are displayed in the HTML table.

This involves additional input fields and logic to allow the user to select the field and field content.

A drop-down list box must be presented permitting the user to specify the relevant single field/column.

You may present the results using a second HTML table or amend the original display table.

The web page logic should be robust and cater for a variety of situations e.g.:

* No database tables being available.
* No XML files being available.
* Table must only be displayed when a selection has been made.

These are just examples of robustness and do not represent a complete list for the available marks.

You must not utilise older:

* HTML DOM selection methods such as getElementById. You must use JQuery’s selector features.
* Ajax techniques to retrieve the JSON returned by the php scripts. You must use JQuery’s $getJSON feature.

Your submission must be supported by a report detailing your design, experiences and selection of content, including:

* Overall design documentation;
* Commentary on JavaScript functionality;
* Commentary on PDO processing. An explanation of how your implementation caters for prohibiting the possibility of attempts at SQL Injection together with supporting evidence showing your implementation actually prohibiting such attempts;
* Commentary on XML processing;
* Evidence of testing using different browsers.

You MUST present the material in a standard expected of level 6 studies i.e. must present arguments of critical evaluation demonstrating an understanding of the concepts investigated/evaluated.

Do not merely implement the overall solution and expect it to work. You are advised to test the individual components of your solution through the use of an appropriate browser’s url using parameters as necessary e.g.

* Reference the php script ( no parameters required ) to obtain the JSON detail representing the available database table names or XML files to populate the drop-down list box. The script should return expected JSON content depicting the available database tables or XML files;

Knowing individual php functionality works allows you to progress to implementing a drop-down list box in an html file.

* Reference the php script (parameter specifying drop-down list selection) to obtain the JSON detail representing the contents of the specified database table or XML file. The script should return expected JSON content representing the table/file details and contents.

You are required to demonstrate your implementation in the timetabled lab sessions during the two weeks immediately following the submission deadline.

**Submission details**:

Your submission to BB must be a single zip file comprising:

* A Word version of your report, including copies of all your code;
* All necessary implementation files.

You are also required to submit a paper based copy of your report.

1. University Academic Misconduct Regulations [↑](#footnote-ref-1)
2. Information on exclusions to this rule is available from the Advice Centre at each Campus [↑](#footnote-ref-2)