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| **COURSEWORK ASSESSMENT SPECIFICATION** |

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| **Module Title:** | *Web Technology* |
| **Module Number:** | *EN0407* |
| **Module Tutor Name(s):** | *Garry Elvin* |
| **Academic Year:** | *2015-2016* |
| **% Weighting (to overall module):** | *55%* |
| **Coursework Title:** | *Assignment Part B Requirements* |

**Dates and Mechanisms for Assessment Submission and Feedback**

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| **Date of Handout to Students:**  Week commencing the 25th January 2016. |
| **Mechanism for Handout to Students:**  The assignment is available via Blackboard. |
| **Date and Time of Submission by Student:**  Thursday the 28th of April 2016 before 4pm. |
| **Mechanism for Submission of Work by Student:**  **Submission instructions**  This assignment **must** be submitted electronically in two ways as follows, see below.   * 1. newnumyspace - you are required to FTP ALL of the files (e.g. HTML, graphics, CSS, php, js, pdf etc.) that you use to implement this part of the assignment (part B) to your newnumyspace account by **Thursday the 28th of April 2016 before 4 pm** (your files should not be altered after that time).   Your web solution MUST be designed to work on your newnumyspace web space. You should test your web solution to ensure that it is working prior to the specified hand-in date/time.  ***If you fail to FTP your files to newnumyspace correctly or do not make the web pages accessible via a web address on newnumyspace by the specified deadline it will not be possible to mark your work.***   * 1. Blackboard - your submission for the assignment will need to be **one** zip file (this MUST be a zip file and not an alternative like a rar file) containing a **zipped** copy of all of the files (e.g. html, graphics, CSS, php, js , pdf etc.) that you have used to complete the assignment using the link provided under **Assignment Part B Submission** in the Assessment area on blackboard for this module by **Thursday the 28th of April 2016 before 4 pm**.   **Instructions for submitting your assignment solution via blackboard**   1. In blackboard go to Assessment > Assignment Part B Submission 2. In **Assignment Part B Submission** section click on the **Browse My Computer** button and navigate to the required zip file 3. In the **Add Comments** box, specify the **EXACT** web address of the home page for your solution to the Assignment.  ***You MUST do this. If you don’t it will not be possible to mark your work*** 4. Click **Submit** (note that it must be Submit and not Save as Draft)   You must only submit only **ONE** zip file that contains all of the files you used to complete the assignment. Do NOT submit lots of files individually.*The zipped copy of the files that you submit using via blackboard must be* ***identical*** *to the files you uploaded to your newnumyspace account.*  *Hints:*   * *Make sure all links, images etc. use relative web addresses to avoid problems* * *It is best to have all file names in lower case, and not to have gaps in file names* |
| **Date by which Work, Feedback and Marks will be returned to Students:**  Within four working weeks of the submission date. |
| **Mechanism for return of assignment work, feedback and marks to students:**  Students will receive written feedback on their work from their tutor via the electronic learning portal (Blackboard). |

**Further Information**

**Learning Outcomes tested in this assessment (from the Module Descriptor):**

1. Create an appropriate web design considering user needs
2. Create a standards compliant web-based application that applies key web accessibility and web design principles
3. Be aware of security issues in relation to web design

**Assignment Outline and Tasks Required**

This part of the assignment, part B, is worth 55% of the marks available for the module. This is an individual assessment. In this document the tasks that you need to complete for this part of the assignment are provided (*make sure that you read carefully*).

You are required to complete the development of the “Chollerton Tearooms” web site. The complete web site should have various components including a home page, a ‘find out more’ page, a server-side PHP script to go with the ‘find out more’ page, an admin page server-side PHP script, a credits page, and wireframe and offer pages (note that the last two should have been completed for part A of the assignment. If you did not create them for part A you do NOT need to create them now - no marks will be awarded for them for this part of the assignment if you do). Your design you should consider the information provided in the Assignment Outline section that is provided in the EN0407\_assignment outline and part A specification 2015\_16 document (available in the Assessment area for the module on Blackboard).

**Good design practice**

Good design practice should be considered when creating the web pages. The following, in particular should always be considered:

* The overall appropriateness of the design for the purpose outlined
* Accessibility (e.g. the appropriate use of colours, access keys, tab index, alt and lists)
* HTML standards and CSS standards compliance – it is expected that: HTML code is standards compliant and validates, without errors, and conforms to the module’s ‘house style’ on coding style *(outlined in appendix I)*; your CSS code will be valid
* Semantic structuring of the content of the web pages appropriately using features such as sectioning elements (e.g. nav. etc.), headings, paragraphs and lists
* Use a range of appropriate HTML tags
* Appropriate use of repetition, contrast (e.g. colour), proximity, and alignment
* Appropriate use of a range of CSS (located in a style sheet that is used for all of the web pages in the site, including the ones generated by PHP)
* Page layout design (Note: use CSS for layout rather than tables)
* Appropriate use of images
* The readability of text
* Provision of an appropriate layout to implement a fluid design that resizes according to viewport size (without horizontal scroll bars ever appearing)
* Cross browser compatibility
* Appropriate and consistent navigation

*Note that the information provided on the pages does not need to be accurate – you may just make it up, but it should still be relevant to the case study.*

**Assignment Part B Development Tasks**

Task 1 – home page

Create a home page with the file name **index.html**. It should:

* Provide appropriate information regarding Chollerton Tearooms to promote the tearoom, craft shop, general village store and post office, and bed and breakfast facilities available and any other relevant content etc. (as you feel relevant)
* Include an appropriate image(s)
* Include a navigation area with 6 links: “home”, “find out more”, “offer”, “credits”, “admin” and “wireframe”. These links need to take the user to appropriate web pages or open a pdf file in the case of the wireframe (if you have one). For “find out more”, “credits”, and “admin” you will create these pages for other tasks. In the case of “offer” and “wireframe” you should link to the special offer page and wireframe pdf that you created in part A of the assignment. Note that if you did not create the special offer page and the wireframe pdf as part of assignment part A, these links should be only “dummy” ones, i.e. link only to the home page itself.

# Task 2 – JavaScript in the home page

The task will involve using JavaScript. *Note that: any JavaScript code that you include* ***MUST*** *be written by hand and must not use external libraries like jQuery etc.; the code used* ***MUST*** *follow the techniques covered in this module and not any other alternative ones; you should include appropriate programming comments in the JavaScript code.* *No marks can be awarded for the use of external libraries or alternative methods.* The **home** page should include appropriate JavaScript and html to:

1. Display a message when the user moves the mouse over an image relating to a particular tearoom meal that there is a special offer for. The message should state the nature of the offer – the exact message is left to you, but it should be appropriate. The way that the message is displayed is also left to you. However, you should consider good usability practice
2. Add a facility that allows the user to personalise their visit to the home page. Specifically, the user should be provided with appropriate means to

* Change the size of the text (only) on the home page (it is not necessary for the text to change on any other page), e.g. be able to make it larger or smaller. The user should be able to select from at least two sizes
* Use a different style sheet to give the home page an alternative look and feel (it is not necessary to change on any other page). The user should be able to select from at least two choices, the original style sheet and an alternative one and should be able to go back to the original. *Note that the styling of the alternatives will not be marked, but should be obviously different to the original*

If you include this functionality it must be accessible in **ONLY** the home page. It will **NOT** be marked if placed elsewhere.

# Task 3 – ‘find out more’ page

On this page a form should be supplied to allow the user to express an interest in receiving more information about Chollerton Tearooms. Upon submission the form should activate a PHP server-script script (program) located on your newnumyspace web server space that adds the details entered by the user in the form as a new record in a database table (see below) and generates a **custom** page that will be displayed within the browser to confirm the user has expressed an interest in finding out more.

The form should provide appropriate components to allow the user to:

* Select the way that more information is too be sent to the user from a choice of post, email and SMS. It should only be possible to choose one method
* Enter their forename, surname, email address, landline telephone number, mobile telephone and postal address
* A means by which the user can indicate that they have read the terms and conditions (*note you don’t actually need to include these on the site*)
* Submit the form

*Note that it has not been specified what type of form components to use for the user input. It is for you to choose the components, but your choices should be appropriate and marks will be awarded for these choices.*

Other form features:

* The form should contain appropriate accessibility features and guidance for users on how to fill out the form, including specifying which fields that are required, i.e. where you want the user to always enter data / make a choice (those that you don’t consider optional). *Note that the guidance should indicate that at least two appropriate fields must be completed*
* The form should be styled appropriately using CSS.

*Task 4 pre-task -* download the an sql file and set-up the required database table

An SQL script, chollerton.sql, has been provided on Blackboard in the Assessment section that contains the SQL statements required to create a database table called ‘CT\_expressedInterest’ in MySQL. You will need this for tasks 4 and 5.

1. Download the file chollerton.sql from Blackboard
2. Import it using phpMyAdmin to create the required MySQL ‘CT\_expressedInterest’ database table for use in tasks 4 and 5. *Note some records have already been added.*

# Task 4 – server-side script to process the ‘find out more’ page form input

Write a PHP server-side script which processes the information sent from the ‘find out more’ form and adds the details entered in the form as a new record in the **CT\_expressedInterest** database table and produces a confirmation page. Note that any PHP code that you include **MUST** be written by hand and not generated by a software tool.

The PHP script should:

* Prevent undefined index error notice messages following submission of the form
* Prompt the user to enter data / make a choice if they do not do so for a required field
* Prompt the user to enter data if they have chosen to receive further information by:
  + post **and have not** entered a postal address
  + email **and have not** entered an email address
  + SMS **and have not** entered a mobile phone number
* Insert the user input from the form created in task 3 as a new record to the **CT\_expressedInterest** table in the MySQL database. Ideally the record would only be added if the user has indicated that they have read the terms and conditions
* Produce feedback on the request to ‘find out more’ as a confirmation page that is displayed in the browser using HTML. It should:
  + Display the forename, surname, address, landline telephone number, mobile telephone and email address of the user
  + Display the method chosen to receive more information by (post/email/SMS)
  + Display an image that is relevant to the method chosen to receive more information – a different image for post/email/SMS
  + Be formatted and styled appropriately using CSS. This needs to be completely accessible and fit aesthetically with the rest of the design
  + Consist of web output that validates as HTML5 compliant and conforms to the module’s ‘house style’ on coding style *(outlined in appendix I)*
* Be commented appropriately (we expect the PHP code to be commented).

# Task 5 – admin page server-side script

On this page details of the user’s requests for more information will be displayed for an administrator to view. To achieve this write a PHP script. This script should:

* Query the contents of the **CT\_expressedInterest** MySQL table and dynamically create a web page which displays a listing of the users that have requested more information about the holidays available using the database records. Full details of each request for more information should be shown
* Format and style the listing (its layout etc.) in an appropriate way using HTML and CSS. For full marks divs or a table should be used in an appropriate way. The page needs to be completely accessible and to fit aesthetically with the rest of the design
* Produce web output that validates as HTML5 compliant and conforms to the module’s ‘house style’ on coding style *(outlined in appendix I)*
* Be commented appropriately (we expect the PHP code to be commented).

*Note that in a real system you would probably want to restrict access to an admin page such as this. However, you are not required to do that for this assessment.*

Task 6 – credits page

In this page give your own name, id and email address. Also if you have used source material from anywhere (text, graphics, or anything which is not your own work) you should acknowledge (reference) the source here with enough information for the source to be easily found (e.g. web addresses, book titles and authors, software names and publishers). If you created any of your own graphics you should also state this on your credits page. Note that the Harvard style of referencing should be used.

Security considerations

The management at Chollerton Tearooms would like you to make them aware of any security considerations related to their web site for both them and their users and what steps you recommend that they could take to minimise any potential security risks.

Add a sub-heading to your credits page called “Security considerations”. Under that heading, in no more than two paragraphs, discuss the security considerations related to the web site and what steps you recommend that they could take to minimise any potential security risks. Within your discussion you should consider, for example, data protection and privacy, legal issues and any other relevant security matters. You should acknowledge (reference) any sources that you have read to help inform the discussion using the Harvard style of referencing.

***Important notes***

* *Test your html code (including any generated using PHP) to ensure that is HTML5 compliant and validates using the W3C Markup Validation Service (this is available at* [*http://validator.w3.org/*](http://validator.w3.org/)*) if validating outside of the University or using Validator.nu*

### *(this is available at* [*https://validator.nu/*](https://validator.nu/)*) if validating inside the University. In addition, ensure that it conforms to the module’s ‘house style’ on coding style (outlined in appendix I)*

### *Test that any CSS code that you use is valid using the W3C CSS Validation Service (this is available at* [*http://jigsaw.w3.org/css-validator/*](http://jigsaw.w3.org/css-validator/)*)*

* *The use of HTML generation tools such as Adobe Dreamweaver (other than in Code view - and even then the use of Dreamweaver layouts is not permitted), or other templates or files for either html or css not authored by you, is* ***NOT PERMITTED****. Anyone who is found to have done so will receive 0 marks for this part of the assignment. You have been warned. We expect you to generate your HTML by hand, e.g. using PHPEdit, SciTE or Dreamweaver in Code view*
* *Any JavaScript code that you include* ***MUST*** *be written by hand and must not use external libraries like jQuery etc.; the code used* ***MUST*** *follow the techniques covered in this module and not any other alternative ones*
* *You should test your web page using web browsers (e.g. Internet Explorer and Firefox) and at different screen resolutions to make sure that it displays as you would expect it to.*

**Assessment Criteria/Mark Scheme:**

This part of the assignment is worth up to 55% of the total marks available for the module.

**Marking Scheme**

Marks will be awarded in the following categories:

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| **Component** | **Marks** |
| **Javascript**   * Special offer message * Personalise home page | 4  7 |
| **‘find out more’ form**   * Functionality (general) | 6 |
| * Functionality (accessibility features) | 2 |
| * Styling (use of appropriate CSS styles for the appearance and layout of the form) | 2 |
| **PHP server-side script to process the ‘find out more’ form input**   * Confirmation page   + Display the name, address, tel. number and email address of the user   + Display the method chosen to receive more info. (post/email/SMS)   + Include image that is relevant to the chosen method to receive info. * Information security and validation issues   + Prevention of undefined index error notice messages   + Prompting to enter data / make a choice for a required field if necessary * Adding a record to the **CT\_expressedInterest** table in the MySQL database   + Data can be entered for all fields except **expressInterestID**   + Record is added to the database   + Record is only added if the user has indicated that they have read the terms and condition | 2  1  2  1  3  1  4  1 |
| PHP server-side script to generate the admin page  * Display a listing of the user requests for more info. using the database records * Format and style of the listing | 4  3 |
| **Discussion of security considerations** | 7 |
| Site page content - relevance of content for the purpose of the site, including use of images and the clarity of the purpose of the site | 5 |
| **Total** | **55** |

**Nature of the Submission Required:** Electronic (as specified earlier)

**Referencing Style:** Harvard

**Expected Size of the Submission**:

Students will need to submit three / four (if you have an offer page) html files, a CSS file, two php scripts, a wireframe (pdf) – if you have one - and any graphics used.

**Academic Integrity Statement:** You must adhere to the university regulations on academic conduct. Formal inquiry proceedings will be instigated if there is any suspicion of plagiarism or any other form of misconduct in your work. Refer to the University’s Assessment Regulations for Northumbria Awards if you are unclear as to the meaning of these terms. The latest copy is available on the University website.

**Failure to submit:** The University requires all students to submit assessed coursework by the deadline stated in the assessment brief.  Where coursework is submitted without approval after the published hand-in deadline, penalties will be applied as defined in the University Policy on the Late Submission of Work. <https://www.northumbria.ac.uk/static/5007/arpdf/lateappr>

**Appendix I**

## html5 House Rules

1. All tags must close or have a self-close (as you need for: <img />, <br /> and <link /> for instance)
2. All attribute values must be quoted
3. All attributes must have values, except where that value is the same as the attribute name
4. Inline elements can't contain block elements and inline elements must be inside a block element (the W3 spec also describes inline and block as 'text-level' and 'grouping' in the [html5 specifications](http://www.w3.org/TR/html5/Overview.html#contents))
5. All tags must be written in lower-case
6. There should only be one heading 1 per page and headings should be nested appropriately