



ASSESSMENT BRIEF

Module Title:	Website Development and Deployment
Module Code:	KF7013
Academic Year / Semester:	2023-2024 – Semester 1
Module Tutor / Email (all queries):	Emma Anderson - emma.anderson2@northumbria.ac.uk
% Weighting (to overall module):	100%
Assessment Title:	Website Development and Deployment Assessment
Date of Handout to Students:	9 th October 2023
Mechanism for Handout:	Module Blackboard Site
Deadline for Attempt Submission by Students:	Part A: upload your website link to the Blackboard assessment discussion board by Friday 27 th October 2023 23:59 (week 4). Upload your 2 peer reviews to the discussion board by Monday 6 th November 2023 23:59. Part B: 3rd of Wed January 2024 23:59 GMT
Mechanism for Submission:	Part A: via the assessment discussion board in Blackboard Part B practical solution: via Blackboard and by uploading to your nuwebspace account (more instructions below). Part B academic security report: via Turnitin on Blackboard
Submission Format / Word Count	Part A: Two document reviews (no word count) Part B practical solution: submit all scripts to Blackboard as a .zip file. Part B academic security report: One document including references. The word count for the security report in part B is 1000 words.
Date by which Work, Feedback and Marks will be returned:	Part A: Friday 17 th November 2023 Part B: Friday 2 nd February 2024
Mechanism for return of Feedback and Marks:	Marks and individual written feedback will be uploaded to the module site on Blackboard. For further queries please email module tutor.

LEARNING OUTCOMES

The learning outcomes for this module are:

Knowledge & Understanding:

1. Demonstrate in-depth knowledge and critical understanding of standards compliant web applications that interact with a database, considering security issues.

Intellectual / Professional skills & abilities:

2. Systematically analyse a web development problem
3. Apply key web accessibility, security, and web design principles to create an appropriate web application to solve a problem, considering specified user requirements
4. Critically appraise web applications with reference to current security issues

Personal Values Attributes (Global / Cultural awareness, Ethics, Curiosity) (PVA):

5. Effectively communicate findings from a critical appraisal of web security issues

This assessment addresses all 5 learning outcomes.

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General Information

This assignment constitutes 100% of the assessment for this module. The aims of the assignment, which will lead you to the fulfillment of the module learning outcomes, are to:

- Develop a dynamic web solution using HTML5, CSS, PHP and SQL.
- Critically review the security of your developed web solution with reference to appropriate academic literature.

Assignment Overview

The assignment is to develop a dynamic web solution individually using HTML5, CSS, PHP and SQL. This activity assesses all of the module learning outcomes.

Your work, for all parts of the assignment, **must be your own** and, where you have used words from someone else (quotations), they should be correctly quoted and referenced in accordance with the Harvard System.

Assessment Scenario

You will create a prototype website for a fictional entertainment events booking system that will allow users to view events available to attend at your chosen venue and make a booking for the chosen event. The events venue can be located in a city/town/country of your choosing, which could be anywhere in the world.

Part A – Peer Reviewed, Semi-Formative Tasks (20%)

The semi-formative tasks are based on workshop activities for weeks 1-4 for which module marks are available. Details of each workshop will be given in class and on Blackboard for each week.

The tasks will be peer reviewed so that you can critically assess your work, and that of your peers. You will submit your URL to the Blackboard assessment discussion board by the end of week 4 (Friday 27th October 2023 23:59). Two peer reviews should be completed and uploaded by the Friday of week 5 (Monday 6th November 2023 23:59). On-campus students should aim to complete the reviews during the workshop in week 5.

The scenario for this assignment is based around **entertainment events** that customers can book when visiting a venue in a particular town or city in any country of your choice. The *type* of entertainment event is for you to choose. Examples include music concerts, festivals, comedy or theatrical shows, or speaking events such as talks and lectures.

An example of such a venue could be a comedy club, or a performance hall or theatre. The venue should be fictional and the details should be decided by you.

You should create a website for the event hosting venue. Individually you should decide:

- The location of the event hosting venue – e.g. country, city/town.
- The type and size of the venue, e.g. city performance hall, small theatre in a town, open-air venue.
- The type of events that the venue specialises in, e.g. for children, families, couples, different age ranges, specific genres, indoor vs outdoor etc.
- The 'brand personality' of the event hosting venue, e.g. budget, luxury, fun, daring etc.

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Once you have made the decisions about the characteristics above:

1. Write a paragraph to describe the event hosting venue and its website needs, covering all of the points above.
2. Design a homepage and one content page for your event hosting venue website using high-fidelity wireframes with additional notes about layout and colour schemes.
3. Implement page structures using HTML5 and add your own content (**important:** not cut and pasted from the Internet, although images may be used with attribution). You should include a link to your wireframe in the navigation area of the homepage.
4. Style the pages using CSS held in an external stylesheet.
5. Deploy your pages to the **nuwebspace** webserver with supporting wireframes and design notes.
6. Post a link to your website's homepage on the designated Blackboard discussion board
7. Critically review the website above yours on the discussion board, **and** the one below it, using the marking scheme below (two reviews each worth 10%) and post your reviews to the discussion board.

Part A Marking Scheme

The following marking scheme will be used for this assignment. A downloadable form will be placed on Blackboard that further details these criteria and leaves space for comments. You should apply the general marking criteria to scale each element. This will be discussed in class.

Description of marking criteria	Marks
Webpages live and linked on the deployment web server	5
Suitability of wireframes	10
Range of HTML5 constructs used	15
Use and complexity of CSS	25
Site design suitability for the target audience	15
Appropriate use of images including attribution	15
Accessibility considerations	15
Total Marks Available:	
100	

Notes:

1. Staff reserve the right to adjust marks that are disproportionately high or low, where the two reviews differ by more than 10%, or where it can be seen that the marking scheme has not been applied accurately.
2. Total marks from the two reviewers will be scaled to 20% of the module mark.

Part B – Practical Web Solution (80%)

Individual work - development of a *dynamic* web solution using HTML5, CSS, PHP and SQL. This activity assesses all the module learning outcomes **including** security issues.

Static content

Develop a website using HTML5, PHP, and CSS. Implement page structures using HTML5 and add your own content (**important**: do not cut and paste from the Internet, although you may use images with attribution to the source).

A site-wide style sheet (external CSS file) should be used to specify the styles for the web pages within the web site. The scripts used to create the website must be organised into folders as taught to simplify maintenance and promote code re-use.

The website should have an appropriate and professional looking interface. The primary focus should be on the end-user so the website must be developed according to best practice and legal compliance in accessibility, usability, and security.

Good design practice should be considered when creating the web pages, such as:

- Relevant general design principles with regard to use of colour, layout, consistency of design, ease of use etc.
- Ease of navigation
- Web accessibility
- Web security

Web standards and validation

All web pages produced for the assignment must use HTML5 as the Doctype. You should make use of CSS classes and IDs as well as HTML selectors. All pages should validate without any HTML errors as reported by <http://validator.w3.org/> for HTML5 and <http://jigsaw.w3.org/css-validator/> for CSS.

Database-driven content

The server-side scripting language that must be used is PHP. A SQL script which creates three tables named events, bookings and customers has been provided for you on Blackboard (eLP) under the Assessments section. You should run this script on your database in PHPMyAdmin on nuwebpace to create the tables. You will also be provided with sample queries for populating the database tables on Blackboard.

You should then manually enter the details of 12 events of your choice into the events table (e.g. children's magic show, music performance by a particular band or artist, talk by a famous author, a theatrical production). You may also add some customer details manually to the customers table if you cannot do this using a web form. You should only add to the bookings table through the web form you will create.

Important Note: Do not alter or remove columns from the tables provided. You **must** use all of the columns in the tables provided.

You may **add** columns to the tables and create additional tables if you see fit to allow for extra features if you are aiming to extend the functionality provided to achieve the higher range of marks for the dynamic functionality. However this is not expected for a basic pass mark.

Minimum specification of pages required

The following pages should be included. Additional useful pages and functions can also be developed if you are aiming for the higher range of marks.

- 1) An appropriately designed homepage/index page with a navigation area.
- 2) A customer registration page which allows you to insert a new customer's details into the customers table using an HTML5 form to gather the customer data and PHP to connect to the database and insert the values.
- 3) An event listing page which links to the *events* table in your database using PHP and displays the contents of the *events* table in a suitable usable format.
- 4) A login page that will allow users to log onto and use the website. The booking page (and any additional pages created about user details and their bookings) should only be accessed by logged in users.
 - i) A logged-in user also needs to be able to logout using a link in the navigation area.
- 5) An event details page which will show the details for a single chosen event. There should be a link for customers to book this event from this page. You can make the assumption that there will only be one event a day per venue.
- 6) A booking function containing a form where the user can book the chosen event for a particular date and number of people (as above, you can make the assumption that there is only **one** event of this type each day).
Note: this form could either be on a separate page or incorporated into the event details page. Display the confirmed booking details to the user following a successful booking.
- 7) A credits page which is used to list any sources you have made use of in the creation of your website. Also if you have used source material from anywhere (pictures, buttons, quotes, or anything which is not your own work) you should acknowledge the source using the Harvard method of referencing.

Please credit **all** sources that you use for anything i.e. code, photos, graphics, logos, widgets, text etc. Please note that we are aware that there are sites on the Internet that provide code. We realise that the Internet coding community encourages sharing and re-use of code. The purpose of this assignment is to show us what YOU can do; not that you can copy somebody else's work.

Academic security report

In addition to the practical work, you should write an academic security report of 1000 words maximum that critically reviews your website's security measures against key threats, also considering anything that could be added in future to support increased security. You should include specific examples from your implementation. This report requires academic references, including those from academic journal papers and textbooks. References are excluded from the word count.

Detailed programming requirements

- The website must be hosted on nuwebspace in a folder called KF7013.
- Security issues as discussed in the module **must** be addressed. You must provide a secure login, all data should be appropriately validated and protected against SQL injection and cross site-scripting attacks.
- PHP sessions should be used to provide application security. It should not be possible to access restricted pages once the owner has logged out.

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- CSS should be used to separate style from content. Tables should only be used for tabular data; not for page layout.
- Web page content used should be dynamic (if the data is stored in the database, it should be retrieved from there, not hard coded into the web page).
- Data integrity should be maintained at all times.
- Code comments should be used throughout all files.
- Code should be neatly indented for readability.
- Your code should be structured to promote code re-use, e.g. place code that is used on more than one page in a separate file to import into all pages that need it. You should use PHP functions wherever appropriate.
- All images used on the website must be stored in the **KF7013/assets/images** folder, all stylesheets in the **KF7013/assets/stylesheets** folder. All PHP and HTML files should be stored in the **KF7013/content** folder.
- You must keep a complete backup (zip) file of your submitted website.
- Bootstrap is **not permitted**. The use of code generation tools is **not permitted**. You must not use any other libraries or code not authored by you, for HTML, PHP, Javascript or CSS. Anyone who is found to have done so will receive 0 marks for this part of the assignment. We expect you to generate your HTML, CSS and PHP from scratch, e.g. using code editors/IDEs.

Advice

- Make sure you plan your code and the way different components will work together before you start writing any code.
- Make sure your code is commented – your comments should be written first – writing pseudocode which become comments help make sure your code makes sense.
- Attempt all parts of the assessment.

Referencing and academic writing support

- For help with citation, use the guide ‘Cite Them Right’ available at <http://www.citethemrightonline.com/>
- For more support on academic writing and citation, you can also attend the University Library’s Northumbria Skills Programme or access Skills Plus via the University Library’s webpage.

Assignment Marking Scheme

Design of the required website pages, including the range of HTML5 constructs used, the use and complexity of the CSS, the suitability of the design for the target users, and accessibility considerations. (This is assessed in part A)	20%
Dynamic content using PHP – implementation of the required website pages and user functions, plus any additional functions and pages as seen fit.	35%
Evidence of implementation of security considerations including secure login, Cross Site Scripting and SQL injection prevention.	20%
Coding style, structure, and conformance to detailed programming requirements	10%
Academic security report	15%
TOTAL	100%

* Please see additional marking criteria information on page 9

Assignment Submission

The assignment is to be submitted electronically in three ways as follows:

- 1) You are required to FTP **ALL** of the files that you used to implement the assignment to your nuwebspace account by 23:59 on 3rd of wed January 2024. Your files should not be altered after that time.

Your web solution **MUST** be designed to work on nuwebspace. You should test your web solution to ensure that it is working prior to the specified hand-in date and time.

The web address to get to your assignment solution should be:

<https://YOURUSERID.nuwebspace.co.uk/KF7013/content/index.php>

(you substitute the text *YOURUSERID* in the above URL with your own user ID)

- 2) You must also zip all the files and subdirectories that make up your system into **one** zip file with the following naming convention:

YOURUSERID_KF7013.zip.

(you substitute the text *YOURUSERID* in the above filename with your own user ID)

In Blackboard go to Assessment> Assessment Submission Points>Assignment Submission.

1. In the Submission section, do two things (you **MUST** do both)
 - a. Enter the **EXACT** web address of the home page for your solution to the assignment in the text box. **You MUST do this. If you don't it will not be possible to mark your work.**
 - b. Click on the paper clip icon or the + symbol to attach your .zip file, then press Submit when this option appears and you have checked you have attached the correct file.

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 nuwebspace account.*

- 3) You must also upload your security report separately to Turnitin via Blackboard. In Blackboard go to Assessment>Assessment Submission Points>Turnitin Submission for Security Report.

Assignment Feedback

A feedback sheet and marks for the assessments will be provided via a rubric on Blackboard Gradebook. This will be available within 3 working weeks of the assignment deadline. Feedback can be discussed in person if required.

Assessment Regulations

You are advised to read the guidance for students regarding assessment policies. They are available on the Student Portal under the 'Assessment regulations and policies' link.

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Late submission of work

Where coursework is submitted without approval, after the published hand-in deadline, the following penalties will apply.

For coursework submitted up to 1 working day (24 hours) after the published hand-in deadline without approval, **10% of the total marks available for the assessment** (i.e. 100%) **shall be deducted** from the assessment mark. Coursework submitted more than 1 working day (24 hours) after the published hand-in deadline without approval will be regarded as not having been completed. **A mark of zero will be awarded for the assessment and the module will be failed**, irrespective of the overall module mark.

These provisions apply to all assessments, including those assessed on a Pass/Fail basis.

The full policy can be found on the Student Portal under the 'Assessment regulations and policies' link.

Word limits and penalties

If the assignment is within +10% of the stated word limit no penalty will apply. The word count is to be declared on the front page of your assignment and the assignment cover sheet. The word count does not include your appendices. Please note, in text citations [e.g. (Smith, 2011)] and direct secondary quotations are included in the word count.

The full Word Limits Policy is available on the Student Portal under the 'Assessment regulations and policies' link.

Academic Misconduct

In all assessed work you should take care to ensure that the work you submit is your own. The University takes academic dishonesty and cheating very seriously and it is your responsibility to ensure that you don't attempt to cheat or become victim to cheating.

There are many different forms of academic misconduct or 'cheating'. Plagiarism is the most common and both the University library and your academic tutors are able to provide further guidance on proper citation and referencing in your assessed work.

The full Academic Misconduct Policy and guidance for avoiding academic misconduct are available on the Student Portal under the 'Assessment regulations and policies' link.

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Marking Criteria

Since the elements above are wide ranging, general criteria are given that are applied as a percentage to each component of the assessment. In the following, 'writing' is understood to apply both to coding and English.

	Percentage	General Criteria
Fail	0-29%	A very poor contribution showing little awareness of subject area. Lack of clarity. Communication of knowledge is either inarticulate and or irrelevant. Website not dynamic, or not written using HTML5, or does not use external stylesheets and scripts. Code fragments from the Internet may have replaced student written content to the extent that it is not possible to determine what the student has understood. The site's functionality does not cover the minimum specification.
	30-39%	Knowledge is limited or superficial. Some awareness of concepts and critical appreciation are apparent, but there are major omissions or misunderstandings. Writing is not clear or coding is unstructured and there is no argument or significant errors. Web pages do not contain links proving they have been validated, or the site does not give correct solutions to any of the interface requirements. The site's functionality does not cover the minimum specification.
	40-49%	Knowledge is barely adequate. Writing is not fluent and/or is mostly description and or assertion are used rather than argument or logical reasoning. A basic understanding of the key issues is demonstrated, but insufficient focus is evident in the work presented. The site's functionality covers only some parts of the minimum specification.
Pass	50-59%	Knowledge base is up-to-date and relevant to an appropriate breadth and depth for level 7. The student has demonstrated the ability to apply theory and concepts, across domains and identify important relevant issues. Written work is supported by appropriate references. Writing and coding are clear and accessible if a little uneven. The site's functionality mostly covers the minimum specification.
	60-69%	As above but there is clear evidence of independent thought and reasoned conclusions. Literature is fully supported by citation using appropriate references and there is development of a critical appreciation of opposing arguments. Presentation of work is fluent, focused, accurate and mostly supported by appropriate references. The minimum specification of the website's functionality is covered, and some initiative may be shown in further developing the website's functionality. Programming standards are mostly professional and the site is mostly secured.
	70-85%	Excellent scholarship is demonstrated. Initiative is shown in developing the website's functionality beyond the minimum specification. Programming standards are professional and the site is secured. Written work is fluent, focused, well-researched, and supported by appropriate references. Clearly exceeds taught material.
	86-100%	Exceptional scholarship is demonstrated. Excellent initiative is shown in thoroughly developing the website's functionality well beyond the minimum specification. Programming standards are professionally and consistently adhered to and the site is well secured. There is a sustained ability to confront the current limits of knowledge in a relevant area. Argument is exceptionally comprehensive, fluent, well-researched and convincing, supported comprehensively by appropriate references. Clearly exceeds taught material.