

ASSIGNMENT COVER SHEET

Unit:	6G4Z2101: Introduction to Web Design and Development
Assignment set by:	Marie Carroll and Peter McKenna
Verified by:	Matthew Crossley
Moderated by:	Kris Welsh
Assignment number:	1CWK50
Assignment title:	ePortfolio Website
Type: (GROUP/INDIVIDUAL)	Individual
Hand-in format and mechanism:	Unit area in Moodle, and work to be demonstrated during timetabled lab class
Deadline:	As indicated on Moodle

Learning Outcomes Assessed:

- Recognise and select basic client side technologies for particular purposes
- Write efficient and readable client-side code that is event- and object-driven, and runs on multiple browsers and platforms
- Apply web design usability principles in the creation of web content based on the business requirements of a given scenario, paying due cognizance to professional, legal and ethical issues

It is your responsibility to ensure that your work is complete and available for assessment by the date given on Moodle. If submitting via Moodle, you are advised to check your work after upload; and that all content is accessible. Do not alter after the deadline. You should make at least one full backup copy of your work.

Penalties for late hand-in: see Regulations for Undergraduate Programmes of Study: <http://www.mmu.ac.uk/academic/casqe/regulations/assessment.php>. The timeliness of submissions is strictly monitored and enforced.

Exceptional Factors affecting your performance: see Regulations for Undergraduate Programmes of Study : <http://www.mmu.ac.uk/academic/casqe/regulations/assessment/docs/ug-reggs.pdf>

Plagiarism: Plagiarism is the unacknowledged representation of another person's work, or use of their ideas, as one's own. MMU takes care to detect plagiarism, employs plagiarism detection software, and imposes severe penalties, as outlined in the Student Handbook (http://www.mmu.ac.uk/academic/casqe/regulations/docs/policies_regulations.pdf and Regulations for Undergraduate Programmes (<http://www.mmu.ac.uk/academic/casqe/regulations/assessment.php>). Bad referencing or submitting the wrong assignment may still be treated as plagiarism. If in doubt, seek advice from your tutor.

Assessment Criteria:	Indicated in the attached assignment specification.
Formative Feedback:	Formative feedback will be given in timetabled lab sessions
Summative Feedback format:	Individual verbal feedback will be given when work is demonstrated to your lab tutor
Weighting:	This Assignment is weighted at 50 % of the total unit assessment.

This assessment is divided into two parts: **Part A** and **Part B**. You must complete **both** parts. Each section will test your understanding of different elements of the term 1 course material.

Part A – HTML and CSS

The following assessed tasks will test your understanding of the material covered in the first five lectures, and their associated labs. Your code should be original, and not the result of following an online tutorial. You will be asked to explain sections of your code when the tutor marks it in class, to verify your understanding of it.

Before attempting the following assessed tasks, you should complete the appropriate in-class lab exercises, and any exercises given to complete during self-directed study time.

Your completed work will be demonstrated in a lab, where it will be marked by a tutor. You should work on the assessed tasks as you complete the necessary background lab work week-by-week.

Checkpoint for Part A formative feedback

You should aim to complete the e-portfolio for PART A by your lab session in the week commencing 31st October. This is a checkpoint where you can demonstrate what you have done to your lab tutor and get feedback on how you might improve it before final assessment. It will also demonstrate to the lab tutor that you are engaging well with the unit and the assessment.

Part A: Task 1 – Develop an e-portfolio

“An e-portfolio (electronic portfolio) is an electronic collection of evidence that shows your learning journey over time. Portfolios can relate to specific academic fields or your lifelong learning. Evidence may include writing samples, photos, videos, research projects, observations by mentors and peers, and/or reflective thinking The real value of an e-portfolio is in the reflection and learning that is documented therein, not just the collection of work.”

(Source: <https://sites.google.com/site/e-portfolioapps/overview>)

A good e-portfolio will show-case your learning, development and achievements throughout your degree course. You can also include relevant information from what you did before coming to MMU.

The links below provide access to some sample e-portfolios. Have a look and consider the content in them. They include a combination of:

- personal details
- qualifications
- work experience
- examples of university work
- reflections on learning experiences
- evaluation of graduate attributes a student has gained
- personal goals
- career goals
- etc

Consider which designs you like, and why, and those you don't like, and why. Which ones do you think would impress an employer? Which ones provide information that a prospective employer would find useful?

<http://mahara.solent.ac.uk/view/view.php?id=82586>

<http://facultyportfolioresource.weebly.com/eportfolio-examples-to-show-your-students.html>

For this assignment you will develop the early stages of an e-portfolio, which you can continue to maintain over the duration of your course.

What you need to do:

- a. Develop an e-portfolio website of at least 4 pages. Your site should include a combination of text and appropriate images.

Your 'home' page should Also think about the graduate attributes and transferrable skills you feel you could already offer to an employer, and what your evidence might be (e.g. skills learned from a part-time job or previous study), and include some commentary on them. You should identify where there are gaps in your graduate attributes and think of developing an action plan to address them over the duration of your degree.

Your 4 pages could be:

Page 1 - About me

- Information traditionally found on a standard CV. Name, date of birth, etc. Include a brief introduction about yourself, a table showing your qualifications to date, and a picture of yourself

Pages 2 & 3 - Commentary on your 4 units, 2 units per page

- Include a brief introduction to what each unit covers (you can find information on the MMU website by doing a course search as if you were a prospective student). Say what you have learned up to the point of getting your portfolio marked, and add a brief personal reflection (e.g. how you feel you are doing with each unit, what you've found easy/difficult). If relevant, say what previous experience you have that you think is relevant to individual units.
- Each page should include at least one relevant image (e.g. a screen shot of something you have done in Processing)

Page 4 – Personal Development Self Assessment

- Evaluate yourself in terms of the following graduate attributes (the 'soft skills') which graduate employers look for). Which ones are you good at? What examples could you give to demonstrate why you are good at them? Where do you need to improve? You will find it helpful to first complete the Personal Development Self-Assessment you have been asked to complete before Tutor Week [Personal Development Self Assessment](#).
 - Critical Thinking and Problem Solving
 - Professionalism
 - Communication Skills

- Teamwork and Leadership
- Professional Development
- Learning and Research Skills

Where appropriate you should use the new HTML5 structural tags. You should be prepared to explain your page structure to a tutor.

- b. Style your website using an external stylesheet. Your stylesheet must include styles for layout and formatting.

Your page layout should, as a minimum, consist of a header, main content area and footer, all nested within an outer container. But do try to be a bit more creative and implement a more complex layout. You should make it look professional, and something you would be proud to show to a future employer.

- c. Create a menu for internal navigation of your site. Your navigation menu should be implemented using a styled html list.
- d. Include at least **two** links to **external** websites (e.g. when writing about Programming you could link to the Processing website to show the software used at the beginning of the unit).
- e. Add appropriate comments within the code of your html pages and your css document, to show that you understand your code.
- f. Throughout your design process you should consider usability and accessibility. Make a note of the usability considerations/features you have implemented in a Word document, and be prepared to explain them to the tutor when your website is marked.
- g. Make your website as responsive as possible, so it adapts to different viewport sizes.

You should work on these tasks week-by-week as you cover the relevant course material. Each week you should upload a draft version to Moodle so the unit leader (Marie) can check on student engagement with the assessment. When you consider your e-portfolio to be complete, you should press the 'Submit' button on Moodle.

You should aim to get a good amount of your e-portfolio completed by the **week commencing 31st October**, which is your **checkpoint** for this part of the assessment. You can demonstrate your work to your lab tutor that week, and get some feedback. You should then aim to act on any feedback and submit your final version during Tutor Week. For ease of marking, where possible you can demonstrate your completed assessment to your lab tutor during a lab session, if time allows.

Assignment Checklist/Self-Review Form: Assignment Part A

Checklist of elements you should have included			If No, what is the room for improvement and what needs to be done? {complete following review*, and advice from tutor}
	Yes	No	
At least 4 HTML pages			
External stylesheet linked to all pages			
Clear internal navigation			
At least two links to appropriate external websites			
Clearly commented code demonstrate understanding			
Note of usability and accessibility features you have implemented			
Website is responsive, adapting to different viewport sizes			

	<i>If <100%, outstanding room for improvement</i>	<i>mark</i>	<i>weight</i>
<i>e-portfolio</i>			
1. Code uses HTML5 structural tags appropriately			10
2. All code is neatly structured and uses appropriate indenting			8
3. Comments communicate clearly and accurately what is happening in the code			8
4. Usability and accessibility features have been implemented and documented			8
5. Site adapts to different viewport sizes			8
6. Content meets the brief and is not trivial. Site looks professional.			8
<i>e-portfolio total</i>			50

Part B – HTML video and canvass

Part B of this Assignment Specification consists of the summatively assessed sections extracted from the Course Notes covering Video, and Canvas. It is integrated into the Notes, and you **MUST** have worked through those Notes in order to understand and complete the Assignment. You must also have completed all the guided and transfer-of-understanding tasks. Criteria are based on commenting and the good coding practice taught on the unit, rather than on product functionality as such. Where appropriate you will find, collect, interpret and apply information from reference sources as given in the Notes (e.g. MDN, W3C and WHATWG documentation). Attempts to shortcut solutions – whether copying or following tutorials via YouTube/Google, or skipping directly to the assignment – **WILL fail**.

1. {9 in Video Notes B} Assessed Task: creating and handling a volume slider

To be done **without assistance**, and using the fundamental techniques learned in sections 1-9 of the Video notes Part B, including successful completion of and feedback on Transfer-of-Understanding Task #7.

This task is not as tricky as the scrub bar, but you will be transferring the principles you've learned from implementing it: from the scrub bar we have learned the essential pattern we need – create the slider, listen to it for change; and handle it by transferring the value from the slider to the value of the property we want to affect.

Do it. Check it. Then get it marked.

What you will need:

Create a slider in the html, assign it to a meaningful variable in the JavaScript.

Find out what property holds the volume of the video.

Find out the range of values this property can have.

Add a listener to the slider – along the same lines as the scrub bar

Change the volume of the video to the value of the slider.

Save, test, check. And again. Make sure you understand the implementation, then write a one-line comment in your own words, indicating how this listener and handler work.

Getting it marked:

- a. Fill out your Assignment Checklist/Self-Review Form.
- b. Get your work checked against the checklist by your lab tutor, and act on feedback
- c. Ask your lab tutor to complete the Summative Assessment Form and award your marks

2. {11 in Video Notes B} Assessed Task: implement a current time field

To be done **without assistance**, and using the fundamental techniques learned in sections 1-11 of the Video notes Part B.

Go over what you've done so far and work out

- what event you need to listen for
- what element the event will occur to
- what property you will need to change

Create a HTML element and assign it to a variable in your JavaScript (you have now done this repeatedly)

Check out a `HTMLMediaElement` reference (e.g. MDN) again for an attribute/**property** that will give you the current playback time of the video.

Check out a Media event reference (e.g. https://developer.mozilla.org/en-US/docs/Web/Events#Media_events) again for an **event** that is fired when this property is updated

Write a listener and handler to format the time and put it in your html element.

You may also wish to set the initial default playback time.

Note that the current playback time has no relation to the duration.

Getting it marked:

- Fill out your Assignment Checklist/Self-Review Form.
- Get your work checked against the checklist by your lab tutor, and act on feedback
- Ask your lab tutor to complete the Summative Assessment Form and award your marks

3. {12 in Video Notes B} Assessed Task: implementing a playback speed changer

Task to be completed based on understanding and successful completion of sections 1 to 12 (to which the specification below refers).

To be done without assistance, and using the fundamental techniques learned in sections 1-9 of the unit notes.

Learners work at different speeds. Literally. Video tutorials often include a control that allows the user to speed up or slow down the playback.

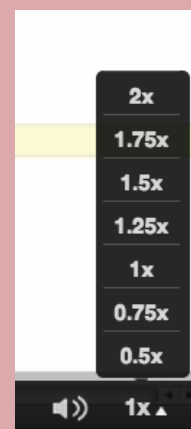
The lynda.com control is pictured to the right as an example.

Your task is to implement such a control: it should allow the user to choose one of seven playback speeds stepped at even intervals from 0.5x of normal speed to 2x of normal speed, indicate the current playback speed, and default to x1.

Hints:

Use a Forms reference source (e.g. <https://developer.mozilla.org/en-US/docs/Web/HTML/Element#Forms>) to find one that will provide a dropdown menu containing different option items like the lynda one.

You do not need any conditional statements.



It is ESSENTIAL that you explain your solution clearly with a comment.

Getting it marked:

- a. Fill out your Assignment Checklist/Self-Review Form.
- b. Get your work checked against the checklist by your lab tutor, and act on feedback

Ask your lab tutor to complete the Summative Assessment Form and award your marks

4. {13 in Video Notes} Assessed Task: implementing fast-forward and rewind buttons

Task to be completed based on understanding of sections 1 to 13 (to which the specification below refers).

To be done **without assistance**, and using the fundamental techniques learned in sections 1-9 of the unit notes.

Implement fast-forward and rewind buttons as follows:

Fast-forward should be straightforward in principle if you have already done the playback speed control.

However, your fast-forward button will enable triple speed when it is held down, reverting to double speed when it is released. Double-clicking the button should restore to normal speed.

You will need to check out your [event reference](#) for events like click but which are fired when the mouse is pressed on an element, released over an element, and clicked twice on an element.

You should also indicate status (this can be done most simply by changing the caption of the button as appropriate).

This is an interesting challenge – it allows you to explore the potential of listeners to listen to the same element for multiple events. It is also possible to add multiple listeners for the same event, and at different levels of the DOM hierarchy.

Rewind: think about the playback speed control, and how you could make the video play in reverse.

Getting it marked:

- a. Fill out your Assignment Checklist/Self-Review Form.
- b. Get your work checked against the checklist by your lab tutor, and act on feedback

Ask your lab tutor to complete the Summative Assessment Form and award your marks

CANVAS NOTES

5. [12 in Canvas Notes] Assessed Task: After Mondrian

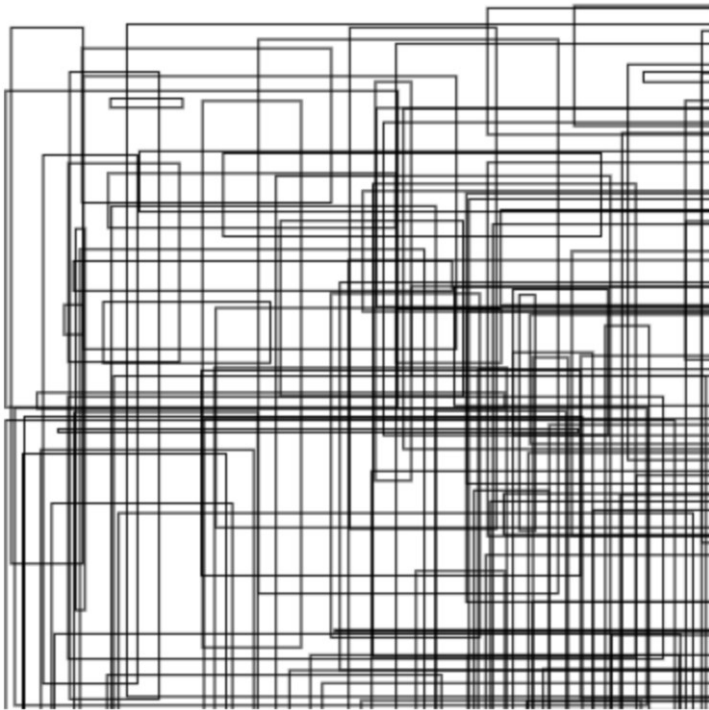
To be done **without assistance**, and using the techniques learned above.

Write code to generate 100 randomly sized rectangles at random locations within a canvas. See example and hint below.

It is ESSENTIAL that you explain your solution clearly with a comment.

Getting it marked:

- a. Fill out your Assignment Checklist/Self-Review Form.
- b. Get your work checked against the checklist by your lab tutor, and act on feedback
- c. Ask your lab tutor to complete the Summative Assessment Form and award your marks



Hint: use the canvas width and height with the `Math.random()` function.

6. [18 in Canvas Notes] Assessed Task: Draw an outline flag of Brazil.

To be done **without assistance**, and using the techniques learned above.

The outline of the map of Brazil that you should create, is represented below. Precise details of the flag, including aspect ratio, colours, and positioning, should be followed: these are available at https://en.wikipedia.org/wiki/Flag_of_Brazil

Getting it marked:

- a. Fill out your Assignment Checklist/Self-Review Form.
- b. Get your work checked against the checklist by your lab tutor, and act on feedback

Ask your lab tutor to complete the Summative Assessment Form and award your marks



Assignment Checklist/Self-Review Form: Assignment Part B

Implementation of each control is assessed on the basis of code quality criteria as well as functionality. You must achieve these to pass and clearly demonstrate your understanding of what you have learned specifically from the tutorial and the lectures.

Code quality criteria and checklist			If No, what is the room for improvement and what needs to be done? {complete following review*, and advice from tutor}
	Yes	No	
Code is in separate .js file(s)			
JavaScript code uses DOM Level 2 event listeners. Contains no assignment to html event attributes or properties, e.g. onclick="playVideo", or playBtn.onclick = "playVideo"			
All identifiers use camelCase where appropriate			
All identifiers clearly indicate purpose to anyone unfamiliar with the code			
No code is copied or adapted from the internet or other sources.			
Code structure is made clear by systematic use of indentation			
Comments communicate clearly, effectively, and accurately what is happening in the code USD L4.3			
Comments don't just repeat the code			

Comments demonstrate understanding (theory and implementation)			
Comments are concise : notes, not sentences			
Solutions are complete: in the case of the video, include the guided solutions from the tutorial; in the case of the flag, colours and dimensions are exact.			

* You should self-review prior to checking with your lab tutor on the specified checkpoint date.

You should achieve all of the above; if you have, and have done all of the components, you will be awarded **full marks** for each weighted component. This is the objective for the unit – that you independently apply what you have learned to new situations, and achieve the learning outcomes and obtain full marks.

If you have not achieved all of the above, and/or have not done all the components, you will be awarded a partial mark based on the extent to which you have met the criteria in relation to the weighting below.

Significant copying of material (from the internet, books, or fellow students), and other indications that you have not learned what has been taught, is likely to attract a **zero mark**.

Summative Assessment form and weighting of components. Assessed against criteria above.

	<i>If <100%, outstanding room for improvement</i>	<i>mark</i>	<i>weight</i>
<i>Video</i>			
7. <i>volume slider</i>			5
8. <i>current time</i>			5
9. <i>playback speed changer</i>			10
10. <i>fast-forward + reverse control</i>			10
<i>Video Checkpoint: Lab in week commencing 21 November 2016</i>			
<i>Canvas</i>			
11. <i>map of Brazil</i>			10
12. <i>Mondrian</i>			10
<i>Canvas Checkpoint: Lab in w.c. 5 December 2016</i>		<i>total</i>	