Assignment front sheet

Qualification		Unit number and title	
Pearson BTEC Higher Nationals in Computing and Systems Development		Unit 14: Web Site Design	
Student name		**Assessor name**	
		Dr Derek Peacock	
Date issued	**Completion date**	**Submitted on**	
10/Feb/2015	28/Apr/2015		

Assignment title	14-1: Designing and Developing a Web Site

O	Learning outcome (LO)	AC	In this assessment you will have the opportunity to present evidence that shows **you are able to:**	Task no.	Evidence
LO 2	Be able to design interactive websites	2.1	Design an interactive website to meet given requirements	1	Use Cases Wireframes Sitemap
		2.2	Evaluate website design with other users	2	Wiki Page
LO 3	Be able to implement interactive websites	3.1	Implement a fully-functional interactive website using a design specification	3	Web Pages
LO 4	Be able to test interactive websites	4.1	Critically review and test the website	4	Wiki Pages
		4.2	Analyse actual test results against expected results to identify discrepancies	4	Web Pages
		4.3	Evaluate independent feedback and make recommendations for improvements	5	Web Pages
		4.4	Create onscreen help to assist the users	3	Web Pages
		4.5	Create documentation for the support and maintenance of the website	2	Use Cases Site Map
LO 1	Understand website design concepts	1.1	Discuss the design concepts that have to be considered when designing a website	6	Word Report

Learner declaration

I certify that the work submitted for this assignment is my own and research sources are fully acknowledged.

Student signature: Date:

In addition to the above PASS criteria, this assignment gives you the opportunity to submit evidence in order to achieve the following MERIT and DISTINCTION grades		
Grade Descriptor	**Indicative characteristic/s**	**Contextualisation**
M1 Identify and apply strategies to find appropriate solutions	Effective judgements have been made	The design needs to be in line with currently recognised good practice for website usability, accessibility and overall layout, structure and appearance.
M2 Select/design and apply appropriate methods/techniques	Relevant theories and techniques have been applied	The implementation needs to be in line with currently recognised good practice in web development. That includes using commonly accepted CSS frameworks and JavaScript libraries The implementation also needs to be mostly complete (>70% of intended features implemented).
M3 Present and communicate appropriate findings	Coherent, logical development of principles/concepts for the intended audience	The final review of the website clearly shows that potential users find the site easy to understand and use, with good accessibility as judged by a user survey.
D1 Use critical reflection to evaluate own work and justify valid conclusions	Self-criticism of approach has taken place	An individual critical evaluation of the design, implementation and testing of the web application in terms of planning, organisation, tools used, techniques followed and the products produced
D2 Take responsibility for managing and organising activities	Effective planning, organising and managing of individual tasks	A detailed plan has been produced and continuously updated showing individual task allocation and completion
D3 Demonstrate convergent/lateral/creative thinking	Problems have been solved	Issues have been logged, managed and resolved where practicable

Assignment brief

Unit number and title	Unit 14: Website Design
Qualification	Pearson BTEC Higher Nationals in Computing and Systems Development
Start date	03/Feb/2015
Deadline/hand-in	28/Apr/2015
Assessor	Dr Derek Peacock

Assignment title	14-1: Designing and Developing a Web Site

Purpose of this assignment

This assignment will focus on the practical skills of designing, building and testing an interactive website using HTML5, CSS3, leading CSS Frameworks and JavaScript Libraries. It will give students an opportunity for working in small teams as most software in industry is developed in teams using project management tools and a version control system. It will also give students opportunities for continuous review and improvement during the development process.

Scenario

Valerian Software is a small software development firm newly established that is looking to develop novel dynamic interactive websites that make use of modern web development best practices.

As a trainee developer you have been given the task of designing, developing and testing a suitable interactive website prototype. The website must have some commercial potential and you can develop it yourself, or as a team of up to three trainees. The application must be developed using a suitable version control system such as Git, and if working as a team the individual tasks must be shared out equally and each person's contribution should be clearly identifiable.

Task 1 : (LO 2.1)

Design a suitable web application that includes the following features

- Standard web based menu system with a Contact Us, About Us and Help pages

- At least 3 other pages a (6 pages for teams of 2 and 9 pages with teams of three))

- Pages should include images, headings, well formatted text, multiple columns, lists, buttons and hyperlinks.

- The pages should be responsive and adapt for easy viewing on mobile phones and tablets.

- The pages should include some functionality using JavaScript, animations and audio/visual elements.

Task 2 (LO 2.2)

Hold a design review meeting in which all the development team are present, together with two other students acting as potential users of the system, and your tutor.

Make a note of all feedback in two lists. Features of the design that are liked by users, and features of the design that could be improved together with suggested improvements.

Task 3 (LO 3.1 and LO 4.4)

Create a website contain web pages that match the proposed design (LO3.1)

Implement a web page to assist the user understand how to make best use of the site. Make sure the site follows accessibility guidelines, and use titles and alt tags to assist the user (LO4.4)

Task 4 (LO4.1, 4.2)

Devise a suitable test plan to test each web page, each link, and each function. Check that the html pages are compliant with W3C standards (LO4.1)

Execute all the tests and record the results. Explain any instances where the expected result is not the same as the actual result (LO 4.2)

Task 5 (LO 4.3

Hold a final review meeting in which all the development team are present, together with two other students acting as potential users of the system, and your tutor.

Make a note of all feedback on the implemented site in two lists. Features of the implementation that are liked by users, and features of the implementation that could be improved together with suggested improvements. (LO4.3)

For **Distinction** write up an **individual** critical evaluation of the design, implementation and testing of the web application in terms of planning, organisation, tools used, techniques followed and the products produced.

Task 6 (LO 1.1

Write a short report (500-1000 words) summarising the important design concepts that were considered during the design and implementation of the website.

Evidence checklist	Summary of evidence required by student	Evidence presented
Task 1	Sketches, Wireframes or mock-ups of web pages that meet the specified requirements. Use Case Diagram and site map.	
Task 2	An evaluation of the proposed design which lists all the good features and all the suggested improvements	
Task 3	An implementation of the website that matches the accepted design.	
Task 4	A test plan that will test all the pages, and all the functionality of the web application with analysed results	
Task 5	A list of features liked by users, and a list of possible improvements to the application. A list of design concepts considered and justification for those included or excluded. An individual critical evaluation of the processes, tools, techniques and product.	
Task 6	A short report summarising the important design concepts considered in the design and implementation of the website.	

Achievement Summary

Qualification	Pearson BTEC Higher Nationals in Computing and Systems Development	Assessor name	Dr Derek Peacock
Unit Number and title	Unit 14: Website Design	**Student name**	

Criteria Reference	To achieve the criteria the evidence must show that the student is able to:	Achieved? (tick)
LO 2.1	Design an interactive website to meet the given requirement	
LO 2.2	evaluate website design with other users	
LO 3.1	implement a fully-functional interactive website using a design specification	
LO 4.1	critically review and test the website	
LO 4.2	analyse actual test results against expected results to identify discrepancies	
LO 4.3	evaluate independent feedback and make recommendations for improvements	
LO 4.4	create onscreen help to assist the users	
LO 4.5	create documentation for the support and maintenance of the website	
LO 1.1	discuss the design concepts that have to be considered when designing a website	

Higher Grade achievements (where applicable)			
Grade descriptor	**Achieved? (tick)**	**Grade descriptor**	**Achieved? (tick)**
M1: Identify and apply strategies to find appropriate solutions		**D1: Use critical reflection to evaluate own work and justify valid conclusions**	
M2: Select / design and apply appropriate methods / techniques		**D2: Take responsibility for managing and organising activities**	
M3: Present and communicate appropriate findings		**D3: Demonstrate convergent /lateral / creative thinking**	

Assignment Feedback

Formative Feedback: Assessor to Student

Action Plan

Summative feedback

Feedback: Student to Assessor

Assessor Signature		**Date**	
Student Signature		**Date**	