BIT703 Web Technologies

Assignment 1

Weighting: 30%

Weighting and course pass requirements

This assignment is worth 30% of your total course mark. To pass this course you must achieve 50% of the total marks available on all assessment activities.

An overview of assignments and weighting

Assignment	Learning outcomes (LOs)	Contribution to total course mark	Weighting of assignment part
Assignment 1	* LO1: Design and create static and dynamic web content using contemporary web technologies and standards. LO2: Install and configure software used to support web environments LO3: Develop a web application demonstrating best practice and using current standards in client-side and server-side scripting and web interface design ** Please note: this assignment will only assess your ability to design and create static web content. You will be assessed on dynamic content in Assignment 3.*	30%	Task 1 (Build a single page portfolio website): 100 marks TOTAL: 100 marks
Assignment 2	LO4: Select the foremost technologies for the application development using current scripting, database and information security standards.	30%	Task 1 (Build a CMS Application): 50 marks Task 2 (Response to scenario): 50 marks

	LO5: Utilise a content management system to allow a user to publish, edit and manage web content from a central interface.		TOTAL: 100 marks
Assignment 3	LO1: Design and create static and dynamic web content using contemporary web technologies and standards. LO2: Install and configure software used to support web environments LO3: Develop a web application demonstrating best practice and using current standards in client-side and server-side scripting and web interface design LO4: Select the foremost technologies for the application development using current scripting, database and information security standards. LO5: Utilise a content management system to allow a user to publish, edit and manage web content from a central interface. LO6: Analyse web application performance on a variety of platforms to test behaviour of scripts and any functional issues resolved	40%	Task 1 (Build a CMS-based web application): 100 marks … TOTAL: 100 marks
Total		**100%**	

Assignment instructions

For this assignment, your task is to develop *your own* portfolio website by applying the tools and techniques you have learnt.

Submission instructions

You are required to submit **a zipped folder** with all the necessary assignment files, including any documentation. If your solution is a Word processed document containing your answers to the assignment questions, this document should be clearly labelled with your name, the number of the assignment and your student number. Name your zipped folder as **BIT703_A1_YourStudentNumber**.

Remember to check that the folder does not contain any other material that you do not wish to submit.

Assignment 1 guidelines

Build a single page portfolio website with a contact form section. The finished product will need to meet the following requirements:

- Include an *index.html* file written in HTML5 with semantic tags where possible such as `<nav>`, `<sidebar>`, `<article>` etc. which is valid to W3C standards
- Organise your files into appropriate directories such as images, CSS etc
- Include a *styles.scss* file which has been compiled and minified into *style.css* via a SASS pre-processor and contains includes the required partials, such as *_variables.scss* and *_mixins.scss*
- The code must make effective use of nesting, mixins and variables to reduce code duplication.
- Incorporate Bootstrap 4 framework, making use of Bootstrap 4's grid for layout and media mixins to create responsive breakpoints for all major screen sizes.
- The web page will have smooth animation between page anchor points.
- The design incorporates code for an animated fade-in overlay controlled by CSS animation and triggered by javascript.
- All text in the document, such as employment history and education should be your original work. You will also need to use images you have sourced.
- Finally, ensure all code is tidy, well-commented and correctly nested and indented.

Marking schedule

Your tutor will use this marking schedule to provide you with a grade and may also provide qualitative feedback (comments) about your work.

Criteria	Marks /100
1. Project structure is well organised with filetypes in the same directory. 8-10 Files well organised and all included correctly 6-8 Files mostly organised and most included correctly 3-5 Files somewhat organised and some included correctly 0-2 Files not well-organised and some or all not included correctly	10
2. Vendor packages have been correctly included in the project. 4-5 Correct vendor packages in vendor folder and included correctly 2-3 Some vendor packages in vendor folder and some included 0-1 No vendor packages, incorrect packages or not included	5
3. HTML is valid. It makes use of semantic tags. The code is tidy and correctly indented. 13-15 Less than ~5 validity errors All tags indented correctly No excessive white space Includes sematic tags such as nav, header, footer where suitable 10-12 Less than ~10 validity errors Tags are mostly indented correctly Little excessive white space Includes some sematic tags 7-9 Less than ~15 validity errors Some sections are indented correctly Includes some sematic tags 4-6 Less than ~20 validity errors Indentation has been attempted Includes few sematic tags	15

	0-2 More than ~20 validity errors Indentation has not been attempted Includes no sematic tags	
4.	Sass is correctly nested, well-formatted and efficient. The code is written in a top-down, general-specific order, with comments and minimal duplication. Variables and mixins are used to keep the code efficient. Good use is made of third-party mixins. 21-25 Sass nested correctly, but not overly so Efficient use of nesting to reduce code Styles are top-down and general-specific All main blocks are commented Variables and mixins are used correctly and effectively Makes effective use of 3rd party mixins 16-20 Sass nested correctly Efficient use of nesting to somewhat reduce code Styles are mostly top-down and general-specific Most main blocks are commented Variables and mixins are used correctly Makes use of 3rd party mixins 11-15 Sass mostly nested correctly Use of nesting could be more efficient Some styles are mostly top-down and general-specific Some main blocks are commented Variables and mixins are used correctly Does not use 3rd party mixins 6-10 Some sass is nested correctly Use of nesting is inefficient Few styles are top-down and general-specific Some comments are used Variables and/or mixins are attempted Does not use 3rd party mixins 0-5 Sass is not nested correctly Use of nesting is not effective or not evident Styles are not organised in order No comments are evident Variables and/or mixins are not attempted Does not use 3rd party mixins	25
5.	Responsive breakpoints are correctly written to create graceful transition through all the following key Bootstrap 4 breakpoints while maintaining an effective design: < 540px 540px - 719px 720px - 959px 960px - 1139px > 1140px While transitioning through all Bootstrap 4 key breakpoints:	25

	21-25 All text remains legible and scales appropriately All images and UI elements remain legible and usable and scale appropriately Menu changes to a usable format at < 960px and < 720px Menu remains simple to operate throughout Each section maintains effective padding and margins 16-20 All text remains legible All images and UI elements remain mostly legible and usable Menu changes to a more usable format at < 960px and < 720px Menu is able to be operated throughout Most sections maintain effective padding and margins 11-15 Most text remains legible Most images and UI elements remain legible and usable Menu changes at < 960px and < 720px Menu is able to be operated on mobile and full-screen Some sections maintain effective padding and margins 6-10 Some text remains legible Some images and UI elements remain legible and usable Menu changes at < 960px or < 720px Menu is able to be operated on mobile One or more section maintains effective padding and margins 0-5 Most text becomes illegible on smaller viewports Images and UI elements fail to remain legible and/or usable Menu does not change on smaller viewports Menu is unable to be operated on mobile Sections fail to maintain effective padding and margins	
6.	The page has smooth animations of appropriate length for all transitions. User interactions are graceful and work as expected. 8-10 The document scrolls smoothly when using anchor navigation Menu anchor items change to active when entering the viewport SVGs animate to the correct final value on scrolling into viewport All hover and click events have smooth animations All animations occur at a suitable speed 6-8 The document scrolls when using anchor navigation Menu anchor items change to active when on page SVGs animate on scrolling into viewport Most hover and click events have smooth animations Most animations occur at a suitable speed 3-5 The document makes use of anchor navigation Menu anchor items change to active when clicked SVGs animate Some hover and click events have smooth animations Some animations occur at a suitable speed 0-2	10

	The document does not make use of anchor navigation Menu anchor items do not change to active SVGs fail to animate Hover and click events lack animation, or are jarring Animations do not occur, or are at an unsuitable speed	
7.	The page conforms to the given design provided in the assessment instructions and uses text and images sourced from the student. 8-10 The document includes all sections in the correct order The layout exactly matches the example given All images are sourced by the student and are suitable All text is generated by the student and is suitable 6-8 The document includes all sections The layout matches the example given All images are sourced by the student All text is generated by the student 3-5 The document includes most sections The layout somewhat matches the example given Most images are sourced by the student Most text is generated by the student 0-2 The document includes few or not sections The layout fails to match the example given Most images are not sourced by the student or are unsuitable Most text is not generated by the student or are unsuitable	10
Total		**100**