HCI/Website Development

Overview of merged tasks

Unit 10 HCI – Specification Content	Unit 15 Web – Specification Content	Task	Completed?
B1 Requirements for a HCI solution • Tasks to be performed. • Input required, e.g. mouse, touchscreen or voice. • Output required, e.g. graphics, animations, audio feedback or physical feedback. • User needs, e.g. accessibility considerations, purpose of system, environmental factors.	**B1 Website design** • Problem definition statement requirements: intended audience, full summary of the problem to be solved, constraints, benefits, nature of interactivity, complexity of the website. • Purpose requirements as defined in a client brief for their interactive website.	Problem definition statement to cover the content described. Identify the target audience.	

Web/HCI – Assignment 2 - Task 2 – Design Documentation

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B2 Schematic design documentation for a HCI solution Documentation needed to develop a solution and record relevant aspects, including: • Generation of ideas, e.g. mood boards, client/designer meetings • Presenting a solution: o Client requirements o Hardware and software requirements o Visualisation/interface design, e.g. storyboarding, flow charts o Technical specification, e.g. file formats required, bandwidth limitations o Target platform o Technical designs, e.g. algorithms, example code, wiring diagrams o Consideration of design rules o Supporting documentation, e.g. meeting notes, research, user profiling o Advantages and disadvantages of proposed solution • Alternative solutions with comparison to the proposed solution and advantages and disadvantages of the alternatives • Methods of obtaining feedback to improve designs, e.g. user testing, client meetings.	**B1 Website design (continued)** Understanding the steps involved in developing a design for a client website. • Application of website design principles by professionally created websites. • Initial design ideas/prototypes (illustrating design principles) and the requirements for an interactive website, including: o Diagrammatic illustrations, e.g. storyboard, mood board, wireframe, site maps o realistic representations o Search engine optimisation o Alternative design ideas/prototypes, including compatibility with mobile/tablet devices. • Client-side scripting design tools and techniques, e.g. pseudocode, flow charts (including use of British Computer Society (BCS) standard flow chart symbols) used to develop original code. • Obtaining and using feedback from others to help refine alternative design ideas/prototypes and make decisions. • Testing plan requirements and its completion with test data to test functionality.	Create design documentation: Mood boards A problem definition statement, covering the following requirements: • Intended audience • Full summary of the problem to be solved • Constraints • Benefits • Nature of interactivity • Complexity of the website The purpose requirements/target audience as defined in a client brief for their interactive website Description of how you will apply website design principles as used by professionally created websites Designs for the web site (annotated storyboards). Technical and design constraints and an explanation how you will work around them Description of the legal and ethical considerations applicable to the equivalent legislation in England, Wales and Northern Ireland and how they relate to your design proposals You should cover: • Copyright, Designs and Patents Act 1988 and its requirements in terms of protecting • Software products and digital media, such as images, music and films. • Data Protection Act 1998 and the requirements it places on organisations to keep data about living individuals secure. Pseudocode Flowcharts Test plan (including tests and expected outcomes) Feedback on your designs Changes to designs based on feedback Review of your designs Justifications of the design decisions	

Web/HCI – Assignment 2 - Task 3 – Assets Table/Copyright Description

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C1 Content preparation for a human-computer interface
Selection and application of appropriate processing and editing techniques to prepare resources to meet client needs.
 	
• Creating unique content, e.g. sounds, images, control code.
• Use of content created by others:
  ○ Permissions
  ○ Acknowledging sources
  ○ Legal and ethical considerations applicable to the equivalent legislation in England, Wales and Northern Ireland, e.g. using content created by others.
 	
• Optimisation, e.g. file size, image size.
• Alternate formats for screen orientation, e.g. landscape, portrait.
• File formats, i.e. compatibility, performance, quality.
• Compression requirements for items such as images, possible constraints, file size and image quality.
	B1 Website design (continued)
	Effective use of ready-made and/or original assets, e.g. a digital animation, digital graphic, digital audio and video, or any other combined assets.
	
	• Identifying technical and design constraints and working around them.
	• Legal and ethical considerations applicable to the equivalent legislation in England, Wales and Northern Ireland:
	  ○ Copyright, Designs and Patents Act 1988 and its requirements in terms of protecting software products and digital media, such as images, music and films.
	  ○ Data Protection Act 1998 and the requirements it places on organisations to keep data about living individuals secure.
		Asset Table and description of how assets will be used (include file types/sizes etc.)
		
		Description of copyright legislation and the data protection act (GDPR) with regard to your assets and the customer data you might collect.	

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C2 Developing a HCI solution Application of HCI design principles to meet client requirements. • Primary interface implementation, e.g. standard icons, menus, window layout. • Implementing alternative interfaces, e.g. mobile version, adaptive for user needs. • Software integration, e.g. event handling, coding to add functionality, applying interface to intended program. • Hardware integration, e.g. bespoke controllers, recognising keystrokes, adaptive technologies, coding to control connected hardware. • Supporting documentation.	**B2 Common tools and techniques used to produce websites** Use of tools and techniques and their suitability for different client requirements. • HTML, HTML5 and subsequent updates. • Tables. • Forms, text field, text area, buttons, radio buttons, check boxes. • Navigation, menus, hyperlinks (internal and external), anchors. • Interactive components, e.g. hot spots, pop-ups, buttons, menus, rollover images. • Colour schemes, styles and templates. • CSS, e.g. background colour, background images, text formatting, borders, padding, heading styles, and element position. • Embedded multimedia/digital asset content, e.g. digital animation, digital graphics, digital audio, digital video. • Accessibility features, e.g. alternative tags, zoom features, text-to-speech. • The World Wide Web Consortium (W3C®) standards for accessibility and HTML compliance. • Platform compatibility, e.g. browser, operating system, mobile devices. • Exporting and compressing of digital assets into suitable file types.	Make the website	

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Web/HCI – Assignment 2 - Task 5 – Testing and Optimising the Website HCI

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C3 Testing an interaction solution • Identifying how and what to test, e.g. producing a test plan, choosing test data, test user identification. • Types of testing, e.g. effectiveness, functionality, performance. • Obtaining feedback from others, e.g. questionnaires, interviews, checklists. • Making improvements and/or refinements to solutions in response to testing and feedback from others.	**C4 Website optimisation** Optimising an interactive website, including: • Performance and user testing • Obtaining and evaluating feedback from others • Checking interactivity • Checking compatibility • Refinements and making improvements to meet client needs to optimise the website.	Evidence of testing including test plans and data, user feedback and details of the changes made in response to testing Annotated screen shots of the optimised web site with changes based on user feedback	

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C4 Reviewing the development process and outcomes Review of the success of development of a HCI solution, including: • Suitability for audience and purpose • Ease of use • Quality of the solution, e.g. reliability, usability, efficiency/performance, maintainability, portability • Constraints, e.g. time, sourcing hardware components, platform, compatibility • Legal and ethical considerations applicable to the equivalent legislation in England, Wales and Northern Ireland, e.g. accessibility requirements, copyright • Impact of design and development processes, e.g. input from others, decisions made • Strengths and weaknesses of the solution • Evaluation of how the implemented solutions could be improved to better meet the needs of the user and fulfil the identified needs.	**C3 Website review** Reviewing interactive websites: • Quality in comparison with other similar websites • Suitability for intended purpose and audience • Suitability against the client's requirements, including optimisation • Legal and ethical constraints • Strengths and improvements	Evaluation of the design and development of the web site	

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C5 Skills, knowledge and behaviours • Planning and recording, including the setting of relevant targets with timescales, how and when feedback from others will be gathered. • Reviewing and responding to outcomes, including the use of feedback from others, e.g. IT professionals and users who can provide feedback on the quality of the HCI solution and its suitability against the original requirements. • Demonstrate own behaviours and their impact on outcomes, including professionalism, etiquette, supportive of others, timely and appropriate leadership, accountability and individual responsibility. • Evaluating outcomes to help inform high-quality, justified recommendations and decisions. • Evaluating targets to obtain insights into own performance.	**C5 Skills, knowledge and behaviours** • Planning and recording, including the setting of relevant targets with timescales, how and when feedback from others will be gathered. • Reviewing and responding to outcomes, including the use of feedback from others, e.g. IT professionals and users who can provide feedback on the quality of the website and their suitability against the original requirements. • Demonstrate own behaviours and their impact on outcomes, including professionalism, etiquette, supportive of others, timely and appropriate leadership, accountability and individual responsibility. • Evaluating outcomes to help inform high-quality, justified recommendations and decisions.	Evidence of individual responsibility, effective time-management including a time plan and witness testimony from your tutor.	