BTEC Assignment Brief

Qualification	Pearson BTEC Level 1/Level 2 Tech Award in Digital Information Technology
Component number and title	**1**: Exploring User Interface Design Principles and Project Planning Techniques
Learning aim	**A**: Investigate user interface design for individuals and organisations
Assignment title	**The User Interface**
Assessor	
Issue date	
Hand in deadline	

Vocational Scenario or Context	**Young Digital Designer of the Year Award** Your teacher has asked you to take part in the Young Digital Designers of the Year competition. Your first step is to research **two** different types of user interfaces. Your research needs to include how the interfaces are used by both individuals and organisations. You need to research how both user interfaces: • meets the audience's requirements, including their accessibility needs, skills level and demographics • use different design principles allow both appropriate and effective user interactions with hardware devices • allow different types of users to efficiently interact with the interface and what design techniques have been used. Select any two types of user interface from the following list for your research: • text based • GUI/WIMPs • sensors • menus/forms. The next step is to use your research to produce a multimedia media product or written report to showcase your findings. The multimedia product or report must contain **three** parts. These are: A. The user interfaces B. Design principles C. Alternative designs

Task 1 – Part A	**The user interface**
	Your first task is to produce Part A for your multimedia product or report. This section should showcase how you have assessed the different techniques that will allow the user to efficiently use the interface.
	Your multimedia product or report needs to evidence:
	How effective the user interface is used on:
	• computers
	• handheld devices
	• domestic appliances
	• entertainment systems.
	The factors affecting the choice of user interface and how the user interface interacts for:
	• user requirements
	• ease of use and accessibility
	• performance/response time
	• user experience.
	The hardware and software used:
	• touch screen vs traditional displays
	• user input such as keyboard, voice, gestures
	• emerging technologies.
Checklist of evidence required	Produce one of the following:
	• A podcast containing annotated screenshots
	• A multimedia presentation with appropriate notes
	• A written report with annotated screenshots
Task 1 – Part B	**Design principles**
	You are now going to produce Part B of your multimedia product or report. You should showcase how you assessed the design principles used and, how the interfaces meet user requirements and interacts with hardware devices. You need to ensure you cover:
	• colours
	• font style/size
	• language
	• amount of information
	• layout
	• retaining user attention
	• combined to create an intuitive design
	You should also assess the user's perception of the use of colour, sound and visuals.

	Remember to also assess the positive and negative effects that each design principle has on the user and their ability to positively interact with the device using detailed relevant examples.
Checklist of evidence required	Produce one of the following: • podcast containing annotated screenshots • multimedia presentation with appropriate notes • written report with annotated screenshots.
Task 1 – Part C	**Alternative design** You are now going to produce Part C of your multimedia product or report. You should showcase how you assessed why an alternative type of user interface would or would not better meet the user needs, with justified examples. You should consider: • audience accessibility needs • user skill level and demographics. The techniques that can be used to improve both the speed and access to user interfaces: • use of keyboard shortcuts • informative feedback • easy reversal of actions • placing related objects next to each other to reduce selection time.
Checklist of evidence required	Produce one of the following: • podcast containing annotated screenshots • multimedia presentation with appropriate notes • written report with annotated screenshots.

Criteria covered by this task:

Criteria reference	To achieve the criteria, you must show that you are able to:
A.2D1	Assess how effectively two different types of user interface meet the design principles and user needs with justified examples.
A.2M1	Analyse how two different types of user interface meet the design principles and user needs with relevant detailed examples.
A.2P1	Explain how two different types of user interface meet design principles with some relevant examples.
A.2P2	Explain how the user interfaces meet user needs with some relevant examples.
A.1M1	Describe the design principles used in two different types of user interface with some examples for each interface.
A.1M2	Describe ways that the user interfaces meet user needs with some examples.

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A.1P1	Identify design principles used in two different types of user interfaces with an example for each interface.
A.1P2	Identify ways that the user interfaces meet user needs with one example for each interface.
Sources of information to support you with this Assignment	These websites provide information about user interface design principles: https://www.usability.gov/what-and-why/user-interface-design.html https://en.wikipedia.org/wiki/Principles_of_user_interface_design http://bokardo.com/principles-of-user-interface-design/
Other assessment materials attached to this Assignment Brief	*E.g. worksheets, risk assessments, case study.*

Notes to the assessor *(to be removed before distribution to learners):*

Approach to teaching and learning to support learners to '*get it right first time'*	Pearson expects that before the assignment brief is distributed to learners they should have already: • attempted formative assessment tasks that replicate important elements of the activities to be carried out in this assignment • received feedback on how they performed including what they did well and how they can further improve including both the quality of their work and the way they went about their work. It would be most beneficial for learners to explore the individual elements of the assignment task before attempting to put them all together in a mock assessment. This will help learners to do their best first time and reduce the likelihood of learners needing to do a resubmission.
The scenario	The 'scenario' can be adapted to any situation that would allow the learner to carry out research on how user interface meets user interface design principles, how they vary across different uses, devices and purposes. The selection of the user interfaces is critical, the user interfaces should provide sufficient coverage of Learning Aim A, Teaching content and focus on the user interfaces used by individuals and organisations allowing the learner to provide detailed and relevant user interface examples. The assignment provides a realistic vocational context for the learning aim. It would not be good practice to artificially force this assignment into a 'vocational role' that is either: a) not realistic to the level of the learner/qualification b) not directly relevant to the qualification.

	In this instance the learner should have full access to pre-defined user interfaces so that they can be full interrogated and provide the learner with the opportunity to access Learning Ain A requirements.
The task	The task set is holistic and allows the learner to be assessed against what is a continuum of effectiveness. Therefore, learners should not be asked to complete separate tasks for each criterion.
	Evidence submitted must be produced by the individual learner, and **not** as a contribution as part of a team. This means the learners must carry out research on different types of user interfaces used by individuals and organisations, analyse the varying needs of the audience and how these affects both the type and design of the interface and how design principles provide both appropriate and effective user interaction with hardware devices.
	Print screens of the relevant detailed examples should support the analysis carried out by the learner.
	The planning and initial design of the user interface, using the design principles listed in section A3, will be undertaken in Learning Aim B Assessment. For Learning aim C the learner will Develop and review a user interface.
	For this assignment, learners must have access to:
	a range of user interfaces from different applications/devices e.g. tablets, watches, software applications, websites, apps
	Centres are encouraged to adapt the task providing the requirements of the assessments is maintained and are encouraged to use the Assignment Checking Service available to centres if they do so.
Evidence checklist	For this instance, a report or podcast or presentation with speaker notes would allow the opportunity for the learner to provide an analysis of how two different types of user interface meet the design principles and user needs. Annotated screen prints of the user interfaces reviewed would support the evidencing of this learning aim.
	It is important that the evidence provided can be independently authenticated by both an Internal Verifier (IV) and a Standards Verifier (SV). It is, therefore, required that there is evidence of the investigation taking place.
	In this instance, there is no requirement for the learner to submit a Record of Activity (e.g. observation record or witness statement).
Sources of information to support you with this Assignment	Sources of information should directly support the learner to complete the assignment. Sources of information are not intended to form additional teaching and learning. Centres should ensure that all teaching and learning has been completed before distributing the assignment to learners.
	It is advisable that a mixture of theoretical sources and sources directly contextualised to planning, pitching and running an enterprise will give learners the best opportunity to achieve their best.

Other materials	This Authorised Assignment Brief does not include any materials to support learners.
	It is expected that learners produce their own evidence.
	Therefore, the provision of templates **is not appropriate** in this instance.
Your assessment decision	You will notice that the assessment criteria form a 'continuum of effectiveness'.
	Therefore, when assessing the learners work rather than assessing the achievement of each criterion separately you should start at the distinction criteria and work backwards to find the point at which the learner meets the targeted criteria.