BTEC Assignment Brief

Qualification	Pearson BTEC Level 1/Level 2 First Certificate in Information and Creative Technology
Unit Title	Unit 10: Database Development
Learning aim(s)/objective(s)	Learning aim C : develop and test a relational database Learning aim D : review the finished relational database.
Assignment title	Unit 10 Assgt 3: Develop and review a database solution
Assessor	
Start date	15/11/2021
Hand in deadline	10/12/2021

Vocational Scenario (or Vocational Context)	Gamer Zone is an established retail computer gaming company with 10 stores throughout the UK. It sells a vast range of retro computer games throughout its stores but as more of its sales are taking place online, it plans to reduce its 'bricks and mortar' outlets to reflect the change in its business model. Currently, Gamer Zone uses a combination of paper and spreadsheet systems to store and manage the information about its computer games stock, customers and all employee and financial information. Due to its increased online operations, the directors have decided to upgrade their current systems. The directors have decided not to replace all of their systems at the same time. They want to focus initially on a new and improved system that will securely record details of their computer game stock. This will allow time for staff to become confident in using the new systems and software safely and securely before any other changes are made. As an IT employee of Gamer Zone, you have been asked to develop the new computer game stock system.

Task 1:	**Develop and Test the Relational Database** You will refine the database solution, using automated tools and techniques, to improve productivity, accuracy and the presentation of output data, taking into account relevant user

feedback.

The relational database must demonstrate awareness of the purpose of the database, user requirements and accuracy by including the following:

- at least two tables with appropriate field attributes including names, sizes formats, data types, validation rules and text.
- defined primary and foreign key(s).
- tables populated with a combined data set containing at least 50 records.
- at least one example of a one-to-many relationship.
- the ability to sort records using single and multiple fields alphabetically or numerically in ascending or descending order.
- at least two data-entry forms.
- creation of reports to present meaningful information, using features, e.g. titles, page layouts, colours, field selection, date/time, grouping, introductions and images.
- a main menu form with options to access other forms, queries and reports.
- searching with single and multiple criteria on one or two fields in at least two tables, using relational and logical operators and wildcards.
- onscreen user guidance to assist users with the user interface, particularly with instructions on how to navigate throughout the forms, data entry and data management, queries and reports.
- error messages resulting from validation and verification checks to data including queries, reports and the user interface.
- automations, e.g. the ability to automate tasks using macros.

You are to test the functionality and additional features of the database, and to ensure it fits its intended purpose.

- Record any repairs made by making comments on the designs and test plans about any issues discovered and how they were resolved.
- Changes to the database should be documented, for example, different versions from stages of development could be used to evidence this.

Arrange a meeting with your Manager to demonstrate your database solution. You should discuss the functionality and usability of the relational database and record this feedback as part of the testing process. Use the discussion to review your designs and improve productivity, accuracy and the presentation of output data.

The Review

It is now time to complete a review and explain why the final database meets the user requirements and purpose.

1. Produce a written report to explain how well the final

	database solution meets the user requirements and fits the intended purpose based on user 2. Expand on the report to review the extent to which the finished database meets the user requirements, considering feedback from others. You may include feedback from previous tasks and new feedback to support the Ensure you identify strengths and potential improvements. 3. Justify any changes that were made throughout the development of the database and explain the rationale for these Make at least three recommendations for how you can further improve the database. You do not need to implement the recommendations.
Checklist of evidence required	• Original database to include the following: • Data-entry forms with clear labelling • Main menu (user interface) form • Queries • Reports • Example of sorted data • Test Plan and tested data with explanations of changes made • Feedback from others • Annotated screen prints of the reviewed database (after testing) • Witness statement • Digital copy of the final database
Attachments	• Unit 10 Assgt RetroGameStock Datafile.xlsx • Unit 10 Assignment 3 Appendix.docx

Criteria covered by this task:

Criteria reference	**To achieve the criteria you must show that you are able to:**
2C.P4	Develop a relational database with a realistic data set, which includes: • two tables • sort records • data-entry forms.
2C.P5	Test the functionality and purpose of the relational database for functionality, repairing any faults.
2C.M3	Develop the database demonstrating awareness of users' requirements and

	accuracy. To include: • customised data-entry forms • queries and output data reports • onscreen navigation and guidance
2C.M4	Gather feedback from others and use it to improve the database and test any additional functionality, repairing any faults.
2C.D3	Refine the database solution using automated tools and techniques to improve productivity, accuracy and the presentation of output data, taking account of user feedback.
2D.P6	Explain how the final database is suitable for the user requirements and purpose.
2D.M5	Review the extent to which the finished database meets the user requirements, considering feedback from others.
2D.D4	Evaluate the finished database against the design and justify any changes made, making recommendations for further improvements to the database.

Sources of information to support you with this Assignment	**Textbook** Allman, E., Jarvis, A., Kaye, A. and McGill, R. (2012) *BTEC First in Information and Creative Technology Student Book*, Pearson Education (ISBN: 978-1-44690-187-8) Textbook designed for this qualification with strong vocational focus. **Websites** GCF Global Microsoft Access 2016 Tutorial https://edu.gcfglobal.org/en/access2016/ Microsoft Access Video Training https://support.office.com/en-gb/article/access-video-training-a5ffb1ef-4cc4- 4d79-a862-e2dda6ef38e6 Quackit Microsoft Access 2016 Tutorial https://www.quackit.com/microsoft_access/microsoft_access_2016/tutorial/

FOR 2012 L2 BTEC Firsts: If you have not achieved the Level 2 criteria, your work will

be assessed to determine if the following Level 1 criteria have been met.	
Criteria reference	**To achieve the criteria you must show that you are able to:**
1C.5	Test the functionality of the database and repair any faults with guidance.
1C.4	Develop a database with a realistic data set with guidance, including: • a single table structure • a data-entry form.
1D.6	Identify how the final database is suitable for the user requirements and purpose.