Digital Technologies

Learner Name	
Course	Pearson BTEC Higher National Certificate in Computing
Awarding Body	BTEC (Pearson)
Module Name(s)	Unit 4 – Database Design & Development (2019 rev)
Assignment Title & Number	Assignment 1 of 2
Assessor's Name	John Terry
Hand out Date	W/C 29th January 2020
Hand in Date	27th March 2020
Feedback Date	+3 weeks

Assessment Brief IQA by: *(Name & Signature)*		**Assessment Brief sample by Lead IQA: *(Name & Signature)***	
Date:	?/?/2020	**Date**	

Specific outcomes and criteria being assessed		
Module	**Grading Criteria**	**Description**
4	P1 (LO1)	Design a relational database system using appropriate design tools and techniques, containing at least four interrelated tables, with clear statements of user and system requirements.
4	M1 (LO1)	Produce a comprehensive design for a fully functional system which includes interface and output designs, data validations and data normalisation.
4	D1 (LO1)	Evaluate the effectiveness of the design in relation to user and system requirements.
4	P2 (LO2)	Develop the database system with evidence of user interface, output and data validations, and querying across multiple tables.
4	P3 (LO2)	Implement a query language into the relational database system.
4	M2 (LO2)	Implement a fully functional database system which includes system security and database maintenance.
4	M3 (LO2)	Assess whether meaningful data has been extracted through the use of query tools to produce appropriate management information.

English, maths and other Skills for Success covered in this assignment	**English** **Written reports and presentations.**	**Maths** **-**	**Skills for Success** **Describing and explaining concepts**
Learner submission sampled by IQA: (Name and signature)		**Learner submission sampled by Lead IQA: (Name and signature)**	
Date		**Date**	

COPYING DISCLAIMER

I confirm that all the work contained in this assignment, being presented for assessment, is my own work.

I also confirm that I have not copied this work from other people's papers, electronically from their disk, from textbooks, CD ROM or from the Internet.

I also understand that if I hand in an assignment that has work in it that has been copied, this will be subject to disciplinary action and may cause me to lose my place on the course.

Student Signature:		**Date:**	

Assessor declaration	I certify that the evidence submitted for this assignment is the learner's own. The learner has clearly referenced any sources used in the work. I understand that false declaration is a form of malpractice.		
Assessor signature	John Terry	**Date**	
		Date of feedback to learner	
Resubmission authorisation by Lead Internal Quality Assurer*		**Date**	

* All resubmissions must be authorised by the Lead Internal Verifier. Only one resubmission is possible per assignment, providing:

- The learner has met initial deadlines set in the assignment, or has met an agreed deadline extension.
- The tutor considers that the learner will be able to provide improved evidence without further guidance.
- Evidence submitted for assessment has been authenticated and accompanied by a signed and dated declaration of authenticity by the learner.

**Any resubmission evidence must be submitted within 10 working days of receipt of results of assessment.

Vocational Scenario

MK Coding Solutions Ltd. are involved in a project to create the back-end systems for a food aggregation service called FaceFiller. You have been provided with a specification from which you will need to design and develop your database.

Task 1	**Grading Criteria Covered:** Unit 4: P1 (L01) Design a relational database system using appropriate design tools and techniques, containing at least four interrelated tables, with clear statements of user and system requirements. Unit 4: M1 (LO1) Produce a comprehensive design for a fully functional system which includes interface and output designs, data validations and data normalisation.
Evidence	Design Document

Analyse the user requirements, giving a list of statements from your analysis. Start your design by using appropriate diagrams and schema to **show the design of at least 4 related tables**.

You should think about using:

- E-R Diagrams
- Data Flow Diagrams
- A database Schema

Following your initial design, provide designs for the other database elements, including:

- Form / UI design
- Report designs
- Schema showing validation rules to be applied to fields
- Full normalisation of all tables through to at least 3NF

Task 2	**Grading Criteria Covered:** Unit 4: D1 (LO1) Evaluate the effectiveness of the design in relation to user and system requirements.
Evidence	Report

Provide a reflective evaluation of the design that you created for the first task. Remember to relate your evaluation to each of the user and system requirements from your analysis.

Task 3	**Grading Criteria Covered:** Unit 4: P2 (LO2) Develop the database system with evidence of user interface, output and data validations, and querying across multiple tables. Unit 4: P3 (LO2) Implement a query language into the relational database system. Unit 4: M2 (LO2) Implement a fully functional database system which includes system security and database maintenance.
Evidence	Documentation of either Access Database or SQL Server Database Developed

From your design, develop the database system.
Start your implementation with:

- User interface implementations (forms, menus etc.)
- Output reports
- Data validation
- Cross-table queries (SQL SELECT queries)

Continue your implementation with:

- Security documentation
- Database maintenance documentation

Task 4	**Grading Criteria Covered:** Unit 4: M3 (LO2) Assess whether meaningful data has been extracted through the use of query tools to produce appropriate management information.
Evidence	Initial Assessment of use as part of a Management Information System

Check the queries that you have created support the management to provide overview data.
Provide an analysis and assessment of how well the reports from the system support management in decision making.

Feedback

Module Number	Criteria included in this assessment		Met or Not Met	Comments
Task 1				
4	P1 (L01)	Design a relational database system using appropriate design tools and techniques, containing at least four interrelated tables, with clear statements of user and system requirements.		
4	M1 (LO1)	Produce a comprehensive design for a fully functional system which includes interface and output designs, data validations and data normalisation.		
Task 2				
4	D1 (LO1)	Evaluate the effectiveness of the design in relation to user and system requirements.		
Task 3				
4	P2 (LO2)	Develop the database system with evidence of user interface, output and data validations, and querying across multiple tables.		
4	P3 (LO2)	Implement a query language into the relational database system.		
4	M2 (LO2)	Implement a fully functional database system which includes system security and database maintenance.		
Task 4				
4	M3 (LO2)	Assess whether meaningful data has been extracted through the use of query tools to produce appropriate management information.		
Assessor's Feedback				
What Went Well? **Even Better If...** **SPaG & Maths Feedback**				
Assessor Signature:			**Date:**	
Student Signature:			**Date:**	

Student's Target (Student to complete from feedback)	
Using the feedback provided, consider how you will improve the quality of your assessed work and identify targets to achieve this.	
Signature:	**Date:**