Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

APPENDIX GA36a

LEVEL 4 ASSESSMENT SPECIFICATION

Student name:		**Student ID number:**	
Programme:	**CERTHE Computing Skills for the Workplace**		
Module:	**Introduction to Web and Database Concepts**		
Module code:	**ACCA4023**	**Contribution to Overall Module Assessment (%):**	**50%**
Lecturer:	Rajeev Nath Suresh Shanmugasundaram	**Internal Verifier:**	**Anum Paracha**
Assignment Title:	**Component 1: Design and Implementation of a Relational Database System**	**Word count (or equivalent):**	**2000**
Submission deadline:	**10-11-2026 2 pm**	**Return date of provisional marks & written feedback:**	**08-12-2026**
Submission method:	All written assessments, where practical and possible, must be submitted via Turnitin unless otherwise instructed by the Lecturer. (Please DO NOT put this assessment specification into Turnitin or it will match many similarities with other students' submissions.) **Alternative submission method (if applicable):** **Late submission of the assessment will result in a late penalty mark:** Work which is submitted up to 1 week late will be capped at 40% for the first attempt and will be awarded a mark of 0% for re-assessment. Late submission penalties may be lifted only if there is an approved extenuating circumstances claim. Work submitted more than 1 week late will be considered as a non-submission and will not be marked. The work may be considered as a submission for reassessment if offered by an Examining Board or if there is an approved extenuating circumstances claim.		
Academic honesty / referencing:	Academic honesty is required. In the main body of your submission you must give credit to authors on whose research and ideas your work is based. Append to your submission a reference list that indicates the books, articles, etc. that you have used, cited or quoted in order to complete this assessment.		
Work over the word limit:	To support fairness and good academic writing, each assessment has a set word limit. It's important that you stay within this limit. The word limit helps ensure: • You write clearly and concisely. • All students complete the assessment on an equal basis.		

If You Go Over the Word Limit
If your work exceeds the word limit, the following penalties will normally apply. These deductions cannot take your mark below the pass mark for the module.

Amount Over Limit	Penalty Applied
Up to 10% over	No penalty
10%–25% over	5 mark deduction *or* reduction to the capped mark (whichever is the smaller penalty)
26%–50% over	10 mark deduction *or* reduction to the capped mark (whichever is the smaller penalty)
Over 50%	Mark capped at the pass mark

Examples (Undergraduate):

- A mark of **44%** would be reduced to the pass mark of **40%** if the work is 10–25% over.
- A mark of **49%** would be reduced by 5 marks to **44%**.
- A mark of **47%** at 25–50% over would be reduced to **40%**.
- A mark of **55%** at 25–50% over would be reduced by 10 marks to **45%**.

If You Are Under the Word Limit
If your work is significantly under the word limit, you may lose marks because your submission may not contain enough detail to meet the learning outcomes.

Feedback
If a word-limit penalty is applied, this will be stated clearly in your feedback, along with the reason.

Module Learning Outcomes (from module syllabus)
Demonstrate a systematic understanding of the underlying concepts of data and databases, and the methodology of database design. Apply appropriate systems investigation and analysis techniques to design and implement relational database solutions.

TASK DESCRIPTION

Use of Generative AI in Assessment
(Lecturer to indicate Yes or Not against each element)

RESEARCH	For this assessment, you can use Generative AI to support you in research and data analysis.	Yes ☒ No ☐
STRUCTURE	For this assessment, you can use Generative AI to support you in structuring your submission, including creating a draft argument structure, identifying parts and headings, etc.	Yes ☒ No ☐
PROOFREADING	For this assessment, you can use Generative AI to check your own text/creation for grammatical and syntactical mistakes, including getting suggestions to rephrase your work.	Yes ☒ No ☐
WRITING	For this assessment, you can use Generative AI to create text for submission.	Yes ☐ No ☒
CREATIVE	For this assessment, you can use Generative AI to create creative materials, such as images.	Yes ☐ No ☒
PROGRAMING	For this assessment, you can use Generative AI to create and check code.	Yes ☐ No ☒
NONE	For this assessment, you are not allowed to use **any** type of Generative AI support. This includes research support, structure support, writing/proofreading support and creative support.	☐

TASK DESCRIPTION

Scenario: Database Implementation for 'FastBites'- a home food delivery business

Assignment Brief: Database Design for 'FastBites'

FastBite is a growing food delivery business that partners with local restaurants to deliver meals to customers. The business operates in several cities and receives online orders from customers. Currently, FastBite stores its data in spreadsheets, which has led to several issues and to solve these problems, FastBite you have been hired as a **junior database developer** to design and create a database that helps FastBite manage its customer, staff, orders and stock information efficiently.

The database you develop must:

- Include tables that store all essential business data
- Support query functionality to generate reports such as stock availability, orders delivered, and other relevant information

Report Requirements

Prepare a report that addresses the following tasks:

1. **Requirement Analysis**
   Provide a clear summary of the business requirements, identifying key needs and objectives.
2. **Entity Analysis**
   Identify and describe all relevant entities in the system. For each entity:
   - Define its attributes
   - Explain relationships between entities
   - Specify the degree of relationships, cardinality, and participation constraints
3. **Entity Relationship Diagram (ERD)**
   Create an ER diagram that represents:
   - All entities and their attributes
   - Relationships between entities
   - Constraints defined in the previous section

   Use a recognised standard ER modelling notation.
4. **Relational Schema**
   Convert the ER diagram into a relational schema by applying appropriate mapping rules.
5. **Normalization**
   Apply normalization techniques to the relational schema and produce a set of well-structured, normalized tables.
6. **Database Implementation (Using Microsoft Access)**
   a. Create the database with all normalized tables.

b. Define and implement foreign keys to establish relationships and maintain data integrity
c. Populate each table with at-least 5 relevant records. Provide the screenshots of all the table in the report.
d. Validate the database design against the identified requirements through testing
d. Develop at least three meaningful queries:
   - Query names must clearly reflect their purpose (avoid generic or random names)
   - Provide a brief description of each query
   - Explain how each query supports business decision-making
7. **Design Decisions**
   Summarise the key design decisions made during the development process and explain their impact.
8. **Reflection**
   Describe the challenges encountered during the project and how they were resolved.
9. **Future Improvements**
   Suggest potential enhancements to make the database more efficient, scalable, and useful.
10. **Conclusion**
    Conclude the report by summarising the work completed and highlighting key learning outcomes from the project.
11. **References:** References to relevant sources from books, journals, and other materials that have contributed to your completion of the assignment. Use the IEEE referencing format.

[Please note that the context of the database requirements has been simplified for assignment purposes and does not truly reflect a real-world implementation scenario.]

Submission Details

1. A Microsoft word report containing the answer of all the tasks.
2. **Microsoft Access application file (.accdb)**

GUIDANCE FOR STUDENTS IN THE COMPLETION OF TASKS

NOTE: The guidance offered below is linked to the five generic assessment criteria overleaf.

1. Engagement with Literature Skills

Your work must be informed and supported by scholarly material that is *relevant* to and *focused* on the task(s) set. You should provide evidence that you have accessed an appropriate *range* of sources, which may be academic, governmental and industrial; these sources may include academic journal articles, textbooks, current news articles, organisational documents, and websites. You should consider the *credibility* of your sources; academic journals are normally highly credible sources while websites require careful consideration/selection and should be used sparingly. Any sources you use should be current and up-to-date, mostly published within the last five years or so, though seminal/important works in the field may be older. You must provide *evidence* of your research/own reading throughout your work, using a suitable referencing system, including in-text citations in the main body of your work and a reference list at the end of your work.

Guidance specific to this assessment:

2. Knowledge and Understanding Skills

At level 4, you should be able to demonstrate knowledge of the underlying concepts and principles associated with your area(s) of study. *Knowledge* relates to the facts, information and skills you have acquired through your learning. You demonstrate your *understanding* by interpreting the meaning of the facts and information (knowledge). This means that you need to select and include in your work the concepts, techniques, models, theories, etc. appropriate to the task(s) set. You should be able to explain the theories, concepts, etc. to show your understanding. Your mark/grade will also depend upon the *extent* to which you demonstrate your knowledge and understanding.

Guidance specific to this assessment:

3. Cognitive and Intellectual Skills

You should be able to present, evaluate and interpret qualitative and quantitative data, in order to develop lines of argument and make sound judgements in accordance with basic theories and concepts of your subject(s) of study. You should be able to evaluate the appropriateness of different approaches to solving problems related to your area(s) of study and/or work. Your work must contain evidence of logical, analytical thinking. For example, to examine and break information down into parts, make inferences, compile, compare and contrast information. This means not just describing what! But also justifying: Why? How? When? Who? Where? At what cost? You should provide justification for your arguments and judgements using evidence that you have reflected upon the ideas of others within the subject area and that you are able to make sound judgements and arguments using data and concepts. Where relevant, alternative solutions and recommendations may be proposed.

Guidance specific to this assessment:

4. Practical Skills

At level 4, you should be able to apply the basic underlying concepts and principles to evaluate and interpret these within the context of your area of study. You should be able to demonstrate how the subject-related concepts and ideas relate to real world situations and/or a particular context. How do they work in practice? You will deploy models, methods, techniques, and/or theories, in that context, to assess current situations, perhaps to formulate plans or solutions to solve problems, or to create artefacts. This is likely to involve, for instance, the use of real world artefacts, examples and cases, the application of a model within an organisation and/or benchmarking one theory or organisation against others based on stated criteria.

Guidance specific to this assessment:

5. Transferable Skills for Life and Professional Practice

Your work must provide evidence of the qualities and transferable skills necessary for employment requiring the exercise of some personal responsibility. This includes demonstrating: that you can communicate the results of your study/work accurately and reliably, and with structured and coherent arguments; that you can initiate and complete tasks and procedures, whether individually and/or collaboratively; fluency of expression; clarity and effectiveness in presentation and organisation. Work should be coherent and well-structured in presentation and organisation.

Guidance specific to this assessment:

Guidance specific to this assessment:

1. Engagement with Literature Skills (20%)

Marks will be awarded based on:

- Number of relevant resources used for preparing the report
- The use of appropriate reference sources to support your work.
- The correct use of the appropriate citation/referencing convention

2. Knowledge and Understanding Skills (15%)

Marks will be awarded based on

- Accurate identification of entities, attributes, and relationships from the scenario
- Demonstrates clear understanding of data modelling principles (e.g., relational structure, keys, constraints)
- Shows awareness of user requirements and data needs in a public service setting

3. Cognitive and Intellectual Skills (15%)

Marks will be allocated based on

- Creation of a well-structured ER Diagram that accurately represents entities, relationships, cardinality and keys.
- Demonstrates application of normalisation upto Third Normal Form(3NF)
- Logical reasoning in structuring queries and justifying their purpose

4. Practical Skills (40%)

Marks will be awarded based on

- Accurate implementation of tables and relationships with constraints
- Meaningful population of sample data to simulate real use
- Development of accurate, purposeful queries aligned with user needs
- Validation steps to check accuracy and integrity of the database system

Note: You should provide a demonstration of the implemented database upon request.

5. Transferrable Skills for Life and Professional Practice (10%)

Marks will be awarded based on

- Well-structured and clearly written report demonstrating logical layout, organised sections, and overall clarity.
- Proper labelling of diagrams, screenshots, and file naming conventions
- Submission formatting and organisation (e.g., Turnitin file, zipped files).

STUDENT FEEDBACK FORM

This section details the *extent* to which the assessment criteria are demonstrated by you, which in turn determines your mark. The marks available for each category of skill are shown. Lecturers will use the space provided to comment on the achievement of the task(s), including those areas in which you have performed well and areas that would benefit from development/improvement.

Generic Assessment Criteria	**Marks available**	**Marks awarded**
1. Engagement with Literature Skills	20	
2. Knowledge and Understanding Skills	15	
3. Cognitive and Intellectual Skills	15	
4. Practical Application Skills	40	
5. Transferable Skills for Life and Professional Practice	10	

Assessment Mark (Assessment marks are subject to ratification at the Exam Board. These comments and marks are to give feedback on module work and are for guidance only until they are confirmed.)	**Late Submission Penalties (tick if appropriate)**		**%**
	Up to 1 week late (40% Max)		
	Over 1 week late (0%)		

GENERIC ASSESSMENT CRITERIA

Level 4
In accordance with the Framework for Higher Education Qualifications, at the end of Level 4 students will be expected to have demonstrated knowledge of the basic underlying concepts and principles of a subject, and an ability to evaluate and interpret these within the context of that area of study. They should be able to present, evaluate and interpret qualitative and quantitative data in order to develop lines of argument and make sound judgements in accordance with basic theories and concepts of their subject(s) of study. They will have learned how to evaluate different approaches to solving problems, and will be able to communicate the results of their study/work accurately and reliably, and with structured and coherent arguments. They will be able to undertake further training and develop new skills within a structured and managed environment and will have the qualities and transferable skills necessary for employment requiring the exercise of some personal responsibility.

Level 4	FAIL	MARGINAL FAIL	SATISFACTORY (3rd / Pass)	GOOD (2.2 / Pass)	VERY GOOD (2.1 / Merit)	EXCELLENT (1st / Distinction)	EXCEPTIONAL (1st / Distinction)
Category	**0-29%**	**30-39%**	**40-49%**	**50-59%**	**60-69%**	**70-84%**	**85-100%**
Engagement with literature (including reading, referencing, academic conventions and academic honesty)	Little or no evidence of reading and/or reliance on inappropriate sources. Views and findings mostly unsupported and non-authoritative. Referencing conventions used incoherently or largely absent.	Poor engagement with essential reading. No evidence of wider reading. Reliance on inappropriate sources, and/or indiscriminate use of sources. Heavily reliant on information gained through class contact. Inconsistent and weak use of referencing.	Engagement with a limited range of mostly relevant and credible sources but with some reliance on information gained through class contact. Some omissions and minor errors. Referencing conventions evident though not always applied accurately or consistently.	Engagement with an appropriate range of literature, including sources retrieved independently. Some over-reliance on texts rather than other sources. Referencing may show minor inaccuracies or inconsistencies.	Engagement with a wide range of literature, including sources retrieved independently. Selection of relevant and credible sources. Generally sound referencing, with no/very few inaccuracies or inconsistencies.	Engagement with an extensive range of relevant and credible literature. Consistently accurate application of referencing.	Exceptional engagement with an extensive range of relevant and credible literature. High-level referencing skills consistently applied.
Knowledge and understanding (Knowledge of the basic underlying concepts and	Major gaps in knowledge and understanding of the basic underlying concepts and	Gaps in knowledge of the basic underlying concepts and principles, with flawed or	Limited knowledge and understanding of the basic underlying concepts and	Knowledge of the basic underlying concepts and principles is accurate with a	Competent knowledge of the basic underlying concepts and principles. Exhibits very	Excellent knowledge and understanding of the basic underlying concepts and	Exceptional, detailed knowledge and understanding of the basic underlying

Level 4	FAIL	MARGINAL FAIL	SATISFACTORY (3rd / Pass)	GOOD (2.2 / Pass)	VERY GOOD (2.1 / Merit)	EXCELLENT (1st / Distinction)	EXCEPTIONAL (1st / Distinction)
Category	**0-29%**	**30-39%**	**40-49%**	**50-59%**	**60-69%**	**70-84%**	**85-100%**
principles of a subject.)	principles of the subject matter. Inclusion of irrelevant material. Substantial inaccuracies.	superficial understanding. Some significant inaccuracies and/or irrelevant material.	principles within the subject area. Some elements may be missing.	good understanding of the field of study but lacks depth and/or breadth.	good understanding.	principles of the subject.	concepts and principles
Cognitive and intellectual skills (Evaluate underlying concepts and principles of a subject and interpret qualitative and quantitative data in order to develop lines of argument and make sound judgements.)	Wholly or almost wholly descriptive work. Little or no evaluation of the underlying concepts and principles. Failure to develop arguments, leading to illogical or invalid judgements. Minimal or no use of evidence to back up views.	Largely descriptive work, with superficial evaluation of the underlying concepts and principles. Weak interpretation of data, flawed development of arguments and judgements. Information accepted uncritically, uses generalised statements made with scant evidence and unsubstantiated opinions. Ideas sometimes illogical and contradictory.	Limited attempt at evaluation of the underlying concepts and principles, tending towards description. Can interpret qualitative and quantitative data but with some errors. Some evidence to support emerging arguments and judgements but these may be underdeveloped or with a little inconsistency / mis-interpretation.	Good evaluation of the underlying concepts and principles. Can interpret qualitative and quantitative data, with minor errors. An emerging ability to use evidence to support the argument. Mostly valid arguments and logical judgements.	Sound evaluation of the underlying concepts and principles. Can interpret qualitative and quantitative data accurately. Ability to devise arguments using evidence to make mostly appropriate and valid judgements.	Excellent evaluation of the underlying concepts and principles. Can interpret qualitative and quantitative data accurately and with some insight. Excellent ability to devise arguments using evidence and make appropriate and valid judgements.	Exceptional evaluation of the underlying concepts and principles based evidence. Outstanding interpretation of qualitative and quantitative data. Exceptional ability to devise arguments using evidence and make wholly appropriate and valid judgements.
Practical skills (Different approaches to solving problems in particular contexts.)	Limited or no use of taught, basic methods, materials, tools and/or techniques. Little or no appreciation of the context of the application.	Rudimentary application of taught, basic methods, materials, tools and/or techniques but without consideration and	An adequate awareness and mostly appropriate application of basic methods, materials, tools and/or techniques.	A good and appropriate application of basic methods, materials, tools and/or techniques. Clear appreciation of	A very good application of a range of basic methods, materials, tools and/or techniques. Very good consideration of the context of	An advanced application of a range of taught, basic methods, materials, tools and/or techniques. The context of the application is	Exceptional levels of application and deployment skills in particular practical contexts. Outstanding identification of

Level 4	FAIL	MARGINAL FAIL	SATISFACTORY (3rd / Pass)	GOOD (2.2 / Pass)	VERY GOOD (2.1 / Merit)	EXCELLENT (1st / Distinction)	EXCEPTIONAL (1st / Distinction)
Category	**0-29%**	**30-39%**	**40-49%**	**50-59%**	**60-69%**	**70-84%**	**85-100%**
	Very weak evidence of different approaches to problem-solving in particular contexts.	competence. Flawed appreciation of the context of the application. Weak evidence of different approaches to problem-solving in particular contexts.	Basic appreciation of the context of the application. Can identify problems in particular contexts and propose basic alternative approaches or solutions though there may be errors.	the context of the application. Good evidence of different approaches to problem-solving in particular contexts and proposes mostly appropriate solutions.	the application. Very good evidence of different approaches to problem-solving in particular contexts and proposes appropriate solutions.	well considered, and insightful. Excellent evidence of different approaches to problem-solving in particular contexts and proposes appropriate solutions.	problems in particular contexts and formulation of wholly appropriate, thoughtful solutions / different approaches.
Transferable skills for life and professional practice (Communicate the results of their study/work accurately and reliably, and with structured and coherent arguments; the qualities needed for employment requiring the exercise of some personal responsibility within a structured and managed environment.)	Work is poorly structured, disorganised, inaccurate and/or confusingly expressed. Very weak use of language and/or very inappropriate style. Failure to work effectively individual or as part of a group. Little or no evidence of the skills for employment requiring the exercise of some personal responsibility.	Work is poorly presented in a disjointed manner. It is loosely, and at times incoherently, structured, with information and ideas often poorly expressed. Weak use of language and/or inappropriate style. Flawed approach to individual or group work, meeting only partial obligations to others. Limited evidence of the skills for employment requiring the	Mostly ordered presentation and structure in which relevant ideas / concepts are reasonably expressed. Work may lack coherence and/or accuracy in places. Can work as part of a group, meeting most obligations to others but perhaps with limited involvement in group activities. Demonstrates the basic skills for employment requiring the exercise of some personal responsibility, with some areas	Mostly coherent, organised and accurate work, in a suitable structure and is for the most part clearly expressed. Can work effectively independently and/or as part of a team, with clear contribution to group activities. Demonstrates the skills for employment requiring the exercise of some personal responsibility, with some areas of strength and some of minor weakness.	Work is accurate, coherent, fluent, well-structured and organised. Can work effectively independently and/or as part of a team, with very good contribution to group activities. Demonstrates very good skills for employment requiring the exercise of some personal responsibility, with just occasional minor weakness.	Work is coherent, very fluent and is presented professionally. Can work effectively independently and/or as part of a team, with an excellent contribution to group activities. Demonstrates excellent skills for employment requiring the exercise of some personal responsibility with an appetite for further development.	Work is accurate, exceptionally coherent, very fluent and presented well. Can work effectively independently and/or as part of a team, with an exceptional contribution to group activities. Demonstrates exceptional skills for employment requiring the exercise of some personal responsibility with an appetite for further development.

Level 4	FAIL	MARGINAL FAIL	SATISFACTORY (3rd / Pass)	GOOD (2.2 / Pass)	VERY GOOD (2.1 / Merit)	EXCELLENT (1st / Distinction)	EXCEPTIONAL (1st / Distinction)
Category	**0-29%**	**30-39%**	**40-49%**	**50-59%**	**60-69%**	**70-84%**	**85-100%**
		exercise of some personal responsibility.	of minor weakness.				

THIS DOCUMENT IS ALSO AVAILABLE IN WELSH