



UGANDA CHRISTIAN
UNIVERSITY

A Centre of Excellence in the Heart of Africa

FACULTY OF ENGINEERING, DESIGN AND TECHNOLOGY

DEPARTMENT OF COMPUTING AND TECHNOLOGY

EASTER 2025 SEMESTER EXAMINATION

PROGRAM: BACHELORS OF SCIENCE IN COMPUTER SCIENCE

YEAR: 2

SEMESTER: 2

COURSE CODE: CSC2209

COURSE NAME: DATABASE PROGRAMMING

EXAMINATION TYPE: *PROJECT-BASED EXAM*

PROJECT DURATION: APRIL 2025

TIME ALLOWED: **TWO WEEKS**

Examination Instructions

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1. The general Uganda Christian University examination guidelines, academic & financial policies apply to this examination. Violating any of the policies by the student automatically makes this examination attempt void, even if you have completed and submitted the answer booklet.
2. This exam is project-based and should be executed in two weeks.
 - i. Assessment of the project shall be based on five milestones. Each milestone shall be evaluated out of 20 marks.
3. Each milestone in the exam will be graded (See milestone table).
4. Students should prepare to make a presentation of their work on the day scheduled for this exam. This will be a physical presentation. Any candidate who fails to present during their presentation slot will not be given another opportunity.
5. Students will also be required to submit softcopies of their documentation and their system on the UCU moodle platform
6. Any student who does not present his/her work will be considered to have missed the exam.

PART A:

PROJECT DESCRIPTION

Propose a scenario or challenge that will be required to identify a database solution in one of the following fields; Education or Agriculture

Your task involves comprehensive requirements specification, design, database development, security and automation, documentation and development of a database application.

The database solution should be targeting a specific problem in alignment with a particular Strategic Development Goal (SDG). This alignment should be well explained by the candidate with clarity on the functionalities that address the SDG concerns in the setting chosen, for the specified target beneficiaries. The candidate will be required to demonstrate these during the exam presentation.

Detailed information on major consideration is in PART B below.

PART B: Project-based assessment guidelines

S/N	Milestone Description	Maximum Marks
1	MILESTONE ONE: Requirements Specification <ul style="list-style-type: none">• Use appropriate tools and techniques to collect relevant information that will give clarity on the major functional requirements to inform your solution development• Perform requirements elicitation, based on the data collected and come up with a list of functional requirements.• Also develop a list of assumptions that will be made during the development of the solution	20 %
2	MILESTONE TWO: Design <ul style="list-style-type: none">• Base on the generated list of requirements and assumptions to come up with a logical design model (Enhanced Entity Relationship Diagram) for your database solution.• Your model should reflect referential integrity and major business rules to guide the system operations.	20 %
3	MILESTONE THREE: Database development [Structure and Data Validation] <ul style="list-style-type: none">• Base on the model to develop a database which will be used to manage the relevant data.• Use appropriate constraints to validate your data and avoid garbage-in. The constraints should be enforcing the operational rules stated or assumed.	20 %
4	MILESTONE FOUR: Security and automation [User Privileges and roles, Stored procedures and triggers] <ul style="list-style-type: none">• Enforce views, roles and privileges to ensure privacy and regulate what the different users can do in your database.• Allow for code re-use and action automations using stored procedures and triggers.	20 %
5	MILESTONE FIVE: Documentation and Dissemination <ul style="list-style-type: none">• You are required to test your system before the presentation day.• Prepare brief documentation (Not more than 10 pages) on your database.• Prepare a presentation to guide your dissemination.• A dump file of the database, presentation file and documentation file should be zipped in a folder labeled with your registration number for submission on the presentation day.	20 %
	TOTAL MARKS	100 %

~END OF EXAM GUIDELINES~