

MAKERERE UNIVERSITY BUSINESS SCHOOL
FACULTY OF COMPUTING AND INFORMATICS
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
COURSEWORK II PROJECT EXAMINATION FOR THE DEGREE OF
BACHELOR OF BUSINESS COMPUTING
OF MAKERERE UNIVERSITY ACADEMIC YEAR 2024/2025

COURSE NAME : BUSINESS APPLICATION PROGRAMMING
YEAR OF STUDY: TWO **SEMESTER: TWO**
COURSE CODE : BUC2227
Date Given: Tuesday 1st April, 2025 at 2:00 PM
Date of Submission: Tuesday 15th April, 2025 at 2:00 PM.

Instructions

- *In your design teams, execute the following project implementation tasks*
- *The time allocated to this project is two (2 Weeks*
- *Create a folder and name it “ BAP Project” where you are going to save all your work*
- *After you are done, burn your work on a CD (Compact Disk)....please ensure a successful data burning process and hand in the CDs to the Lecturer by the deadline date*
- *Prepare for the presentation of your work that will be held after you have all handed in.*
- *Be as creative as possible as extra marks will be awarded to creative groups*
- *Prepare a write-up in a table format detailing each member's contribution on this project.*

See example below; This should be printed out and handed in together with the CD

<i>Member name</i>	<i>Reg.No</i>	<i>Contribution</i>	<i>% Contribution</i>
<i>Safiq</i>	<i>23/U/23239/PS</i>	<i>Designed the user login screen</i>	<i>30%</i>
<i>Olga</i>	<i>23/U/12121/EVE</i>	<i>Coded for the login screen</i>	<i>30%</i>
<i>Ismael</i>	<i>23/U/88917/PS</i>	<i>Designed the main application form</i>	<i>40%</i>
<i>Total</i>	<i>N/A</i>	<i>N/A</i>	<i>100%</i>

- *Avoid duplication of other groups' work. Once identified will lead to cancellation of both groups' work involved in the act*

Question

Building on your design phase from project one, you are now required to implement your applications. The tasks below are crafted to guide you through the implementation phase (coding, testing, documentation, and deployment) of your business applications.

Required;

1. Set up the Development Environment [15 marks]

Task:

- Install and configure Visual Basic.Net
- Set up MySQL Server (if your application requires a database).
- Configure the database connection in your VB.NET application.
- Ensure all required libraries and dependencies are installed.

Deliverables:

- In your project report, submit a screenshot of your configured development environment.
- If using a database, provide a screenshot of the established database connection in VB.NET.

2. Implement core application functionality [25 marks]

Task:

- Implement a user authentication system with login/logout functionality.
- Develop data entry forms to capture business-related records (e.g., products, patients, bookings etc).
- Implement CRUD (Create, Read, Update, and Delete) operations for the database.
- Add input validation to prevent incorrect user entries.

Deliverables:

- In your project document, submit screenshots of login/logout functionality.
- Submit screenshots of data entry forms with sample data.
- Provide code snippets for CRUD operations and input validation.

3. Perform testing & debugging [20 marks]

Task:

- Conduct unit testing for individual features (e.g., login, data entry).
- Perform integration testing to check how different system components interact.
- Identify and fix bugs in the system.

Deliverables:

- Submit a test case table showing test scenarios, expected outcomes, and actual results.
- Submit a list of identified bugs and their solutions.
- Provide screenshots of successful test results.

4. Refine the user interface (UI) & enhance user experience

[20 marks]

Task:

- Improve the user interface using consistent colors, fonts, and layouts.
- Implement error messages and confirmation dialogs for user interactions.
- Ensure the UI is user-friendly and responsive.

Deliverables:

- Submit before and after screenshots showing UI improvements.
- Provide code snippets for user feedback messages and error handling.

5. Write user & technical documentation

[20 marks]

Task:

- Write a User Manual with step-by-step instructions for using the application.
- Prepare a technical documentation that includes system architecture, database design, and key functionalities.

Deliverables:

- Submit a user guide document with instructions and screenshots.
- Submit technical documentation that includes an ER diagram of the database.

***** *The End* *****