

**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 2025/2026**

**COURSE NAME : BUSINESS APPLICATION PROGRAMMING**  
**YEAR OF STUDY: TWO SEMESTER: TWO**  
**COURSE CODE : BUC2227**  
**Date Given: Wednesday 15<sup>th</sup> April, 2026 at 2:00 PM**  
**Date of Submission: Thursday 30<sup>th</sup> April, 2026 at 2:00 PM.**

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***Instructions***

- *In your design teams, execute the following project implementation tasks*
  - *The time allocated to this project is two (2 Weeks)*
  - *Attempt all tasks in this project assignment.*
  - *Create a folder and name it after your project title (eg “MUBS Library Mgt App”) where you are going to save all your work*
  - *After you are done, you can burn your work on a CD (Compact Disc) or a Flash disc and hand it in 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*
  - *Avoid duplication of other groups’ work. Once identified will lead to cancellation of both groups’ work involved in the act*
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**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* \*\*\*\*\*