ASSESSMENT 2 BRIEF

MODULE CODE	COM7033
MODULE TITLE	Secure Software Development
MODULE LEADER	Xin Lu
ASSESSMENT TITLE	Demonstration
WEIGHTING	30%

ASSESSMENT LEARNING OUTCOMES

Upon successful completion of this assessment, you will be able to:

1. Demonstrate an understanding of secure programming concepts and techniques.
2. Apply programming skills to manipulate and analyse data using popular libraries and frameworks.
3. Demonstrate an understanding of the importance of developing software in an ethical, secure, and professional manner.

INSTRUCTIONS

This assessment requires you to provide a **15-minute recorded presentation** to demonstrate the secure web application you developed for **Assessment 1**. Your presentation should show your understanding of secure programming concepts and techniques.

Key Requirements:

1. Prepare a PowerPoint Presentation:
    - System Design Overview: Provide a clear and structured outline of your web application's architecture.
    - Security Features: Dive into the secure programming techniques you implemented, covering areas like data encryption, input validation, authentication mechanisms, and database security. Explain the choices you made, and the challenges overcome.
    - Ethical and Professional Development: Discuss the importance of ethical considerations in handling sensitive patient data and the professional practices you adopted during development, including code quality, testing, and version control.
2. Demonstrate Your System:
    - System Walkthrough: Conduct a comprehensive live demonstration of your web application, showcasing core features such as patient data management, secure data storage and retrieval, and interaction with the database.
    - Security Implementations: Emphasize how patient data is securely handled, explaining how encryption methods (e.g., for sensitive information) and validation techniques (e.g., input sanitation) work in practice.

- Database Handling: Show the integration of multiple databases (SQLite and MongoDB) and demonstrate how they function in storing and retrieving data securely.

3. Highlight Professional Development Practices:
   - Show version control practices, using GitHub to highlight how you tracked your project's progress through meaningful commits.
   - Demonstrate any unit tests you have written to ensure the application's functionality and reliability.

SUBMISSION DETAILS

RELEASE DATE	15 October 2024
SUBMISSION DATE	29 November 2024
DELIVERABLES	A **15-minute recorded presentation** (using Panopto) demonstrating your developed system from Assessment 1. • Upload the Panopto link with open access to Moodle. • PPT slides used in your presentation
SUBMISSION DETAILS	Submit your assignment by uploading it to Moodle before midday on the submission date. This deadline will be automatically and strictly enforced. If your submission is late, your grade may be affected. If you have any issues submitting your work, you must email the assessment team and copy in the module leader before the assessment due time. Do not leave your submission until the last minute to avoid any penalties due to problems with the submission portal. Assessment Team: assessment@leedstrinity.ac.uk Module Leader: x.lu@leedstrinity.ac.uk We may ask for a demonstration of your work following the submission. If needed, this will be communicated to you individually via email. Please check your emails regularly.

Your feedback / feed forward and mark for this assessment will be provided within 15 working days.

MARKING CRITERIA

Marks are awarded based on the following criteria. Within each part, aim to complete the work for each section before moving on to the next. The following banded marking scheme is used:

Exceptional Distinction	100/95/92		*Pass*	58/55/52
	88/85/82		*Bare Fail*	48/45/42
Distinction	78/75/72		*Fail*	38/35/32
Merit	68/65/62			

If you have completed all the preparatory exercises and attended your classes, the estimated additional time required to PASS this assessment is approximately 15 hours.

To obtain a PASS mark (50%), you must have:	○ Present clear but simple slides explaining the system design. ○ Show a basic understanding of secure software development principles and key security practices. ○ Explain ethical considerations and how professional practices were integrated into development. ○ Demonstrate the web application with at least one core feature working. ○ Explain the basic structure of the database and how data is stored and accessed. ○ Explain the use of version control (e.g., GitHub) and show a basic understanding of its importance.
To obtain a MERIT mark (60%), you must have (in addition to the above):	○ Fully demonstrate the system with all key features working correctly. ○ Provide well-organized slides explaining system architecture, security features, and user interface. ○ Offer a good discussion of ethical considerations and data privacy. ○ Provide a detailed explanation of the database design, showing an understanding of data relationships. ○ Explain the code to demonstrate a good understanding of its functionality and structure ○ Show a good understanding of version control with multiple, well-structured commits on GitHub. ○ Demonstrate a basic understanding of unit testing practices.
To obtain a DISCTINCTION mark (70%), you must have (in addition to the above):	○ Provide well-organized slides with detailed explanations of system architecture, security features, and user interface design. ○ Provide a detailed discussion of ethical concerns and compliance with industry standards. ○ Demonstrate professional use of version control. ○ Explain key code sections clearly, describing their purpose and contribution to the system. ○ Explain unit tests, their importance in software development, and how they are applied to ensure system reliability.
To obtain an EXCEPTIONAL DISTINCTION mark (80%), you must have (in addition to the above):	○ Deliver professional slides that clearly cover system design, architecture, security, and database management. ○ Provide a comprehensive discussion of ethical and legal concerns, referencing industry standards. ○ Offer an in-depth explanation of code sections and their contributions. ○ Provide a detailed discussion of unit tests, their validation role, and contribution to software quality.

ACADEMIC MISCONDUCT

Academic Misconduct includes all forms of academic dishonesty, whether intentional or accidental, that compromise the integrity of the University's assessment processes. It is essential that you review our Student Academic Misconduct Policy to understand the guidelines and the serious consequences that may arise if they are not followed.

HELP AND SUPPORT

- Please use the module handbook and the School of Computer Science Community Teams site as a source of information. Do try and find the answer out yourself before reaching out for help.
- Support will be provided via Microsoft Teams and email during office working hours. You can also ask questions during your timetabled sessions. You may request a one-to-one meeting with a tutor during their published office hours.
- The Student Support team are available seven days a week to support you in all aspects of student life. This could be for support relating to your course, your accommodation or for more general advice such as relationships or your wellbeing. Log in to the LTU app to access support services.
- The full set of university guidelines on assessments, deadlines, and extensions is available on the LTU app, please familiarise yourself with the documentation.