Coursework Assessment Brief COMP1859-2023/24 Academic Session.

COMP-1859 **(2023/24)**	Information Retrieval	Individual coursework is 100% of overall assessment
Module leader Ayodeji O.J IBITOYE PhD	CW Information Retrieval System	Deadline Date: 14 December 2023
Typically, feedback and grades are accessible within 21 working days following the coursework deadline.		

Learning Outcomes:

1. Demonstrate critical analysis and evaluation skills in assessing the functionality and effectiveness of diverse information retrieval systems designed for various purposes. Additionally, students will gain an understanding of fundamental concepts in Information Retrieval and its applications within contemporary online systems.
2. Comprehend and critically assess the disparities between processing structured and unstructured data, as well as the associated challenges related to the storage, analysis, and retrieval of unstructured data.
3. Exhibit the ability to design and develop information retrieval systems for use in local or online environments. This entails the application of suitable retrieval methods or specific components within such systems, which are capable of effectively working with both structured and unstructured data.

Plagiarism

Plagiarism is the act of presenting another person's work as your own. This encompasses copying information directly from the internet or books without proper citations, submitting collaborative coursework as individual work, replicating another student's assignments, or obtaining and submitting someone else's work as if it were your own. Suspected cases of plagiarism will be thoroughly investigated and, if confirmed, dealt with according to the University's established procedures. It is essential to correctly reference any material taken or adapted from any source, be it the internet or books, according to the appropriate referencing style. Your work will undergo electronic plagiarism checks, and any effort to circumvent the school's plagiarism detection systems will be regarded as a serious Assessment Offence.

Coursework Submission Requirements

Kindly submit your work no later than 23:50 p.m. on the 14 December 2023, which is the designated deadline date. Utilize the provided link on the COMP-1859 Coursework Moodle page for submission.

Here are some important guidelines for this coursework:

1. You should submit a single Acrobat PDF document.
2. Ensure that your document primarily consists of text and includes properly annotated and labeled screenshots where necessary, all saved in PDF format.
3. Include the URL to your design (if applicable) for effective appraisal

4. Make certain that any files you upload are free from viruses and are not password-protected or corrupted; otherwise, they will be considered null submissions.
5. Your work will undergo online assessment, and you will receive comments and a provisional grade, accessible via the coursework page. The final grade will be accessible through the portal.
6. It is crucial that you refrain from submitting a physical paper copy of this coursework.
7. Adherence to the specified submission instructions is mandatory.

Detailed Specification

Embrace this coursework as an opportunity for personal growth and learning. Remember that it is to be completed independently, allowing you to showcase your individual abilities.

I strongly encourage you to thoroughly read and comprehend this entire specification, ensuring that you have a clear understanding of all the requirements.

For additional guidance and to stay informed about the current Coursework Regulations, including penalties for late submissions, procedures for handling Extenuating Circumstances, and the consequences of Assessment Offences, please visit the University website. The link provided below is your gateway to valuable resources that will support your academic journey. e https://www.gre.ac.uk/student-services/exams/regs

Comp 1859 - Information Retrieval Task

You have been employed as an IT Consultant working for a reputable healthcare organization that aims to improve patient care through advanced information retrieval systems. The organization has access to diverse data sources, including structured electronic health records (EHRs), unstructured clinical notes, medical images, and research articles. Your role is to design and develop an integrated information retrieval system capable of effectively working with both structured and unstructured healthcare data in local and online environments.

Part A: System Design (35%)

1. Begin by designing an innovative information retrieval system that seamlessly integrates structured and unstructured healthcare data for use by medical professionals and researchers.
2. Describe the architectural components and data flow within your system, explaining how it handles structured data from EHRs, unstructured clinical notes, medical images, and research articles.
3. Discuss the retrieval methods, machine learning algorithms, or natural language processing techniques you will employ to ensure the system can provide relevant and timely information to users.

Part B: Development and Implementation (25%)

1. Provide a detailed development plan, including the selection of appropriate technologies and tools for implementing your design.
2. Address data security and privacy concerns, outlining measures to protect sensitive healthcare information in both structured and unstructured formats.
3. Showcase the functionality of your information retrieval system through a prototype or demonstration, emphasizing its ability to retrieve, analyse, and present healthcare data effectively

Part C: Evaluation and Optimization (20%)

1. Develop a comprehensive evaluation plan to assess the system's effectiveness, usability, and relevance to healthcare professionals and researchers. Include user testing and performance metrics.
2. Discuss strategies for ongoing optimization, considering feedback from medical professionals, researchers, and technological advancements in the healthcare industry.

Part D: Overall, Clarity and Organization of Content (20%)

1. Coherent organization of the coursework, logical flow, and transitions:
2. Clear and concise language, well-structured paragraphs, and impeccable formatting:
3. Effective use of relevant examples to illustrate key points
4. Integration of academic literature, industry best practices, and citations, demonstrating research

Deliverables

A PDF report submitted by the due date containing the following sections IN THE ORDER given below. Do not include any other information. Do not include any of your source code in the report.

1. A cover page.

2. Table of Contents

3. Evidence of Task Parts A, B, C, and D

4. URL to prototype (if any)

5. Not more than 5000 words

Main Marking Scheme: CW Assessment Brief COMP1859-2023/24 Academic session

Marking Scheme

Coursework: Level 6- The rubric for coursework							
	0-29% Fail	**30-39% Fail**	**40-49%Satisfactory**	**50-59% Good**	**60-69% Very Good**	**70-79% Excellent**	**80-100% Exceptional**
D1 Knowledge This criterion assesses the depth of understanding and expertise demonstrated by the student regarding information retrieval system design and healthcare data. It evaluates whether the student possesses a solid foundation of knowledge and concepts in this field. A higher score indicates a more comprehensive and profound understanding.	Minimal understanding of information retrieval system design and healthcare data. Lack of foundational knowledge and concepts.	Limited knowledge of information retrieval system design and healthcare data. Weak grasp of foundational concepts.	Basic knowledge of information retrieval system design and healthcare data. Adequate understanding of foundational concepts	Good knowledge of information retrieval system design and healthcare data. Solid grasp of foundational concepts.	Strong knowledge of information retrieval system design and healthcare data. Clear understanding of foundational concepts.	Exceptional knowledge of information retrieval system design and healthcare data. Profound understanding of foundational concepts.	Outstanding mastery of information retrieval system design and healthcare data. Exceptional depth of knowledge and innovation.
D2 Research This metric evaluates the extent to which the student has conducted research for the coursework. It considers the integration of academic literature and industry best practices into the work. A higher score indicates thorough research and effective incorporation of external sources to support arguments and ideas.	Minimal research effort. Limited or no integration of academic literature and industry best practices.	Limited research effort. Limited integration of academic literature and industry best practices	Basic research effort. Some integration of academic literature and industry best practices	Adequate research effort. Effective integration of academic literature and industry best practices.	Good research effort. Strong integration of academic literature and industry best practices	Exceptional research effort. Exceptional integration of academic literature and industry best practices.	Exemplary research effort. Profound integration of academic literature and industry best practices, demonstrating thought leadership.
D3 Evaluation This criterion measures the student's critical thinking and analytical skills. It examines how well the student has assessed the system's design and development, including their consideration of challenges and proposed solutions. A higher score reflects a more thoughtful and comprehensive evaluation.	Minimal critical evaluation of system design and development. Lack of consideration for challenges and solutions.	Limited critical evaluation of system design and development. Minimal consideration for challenges and solutions.	Basic critical evaluation of system design and development. Some consideration for challenges and solutions.	Adequate critical evaluation of system design and development. Effective consideration for challenges and solutions	Good critical evaluation of system design and development. Thoughtful consideration for challenges and solutions.	Exceptional critical evaluation of system design and development. Profound consideration for challenges and solutions.	Outstanding critical evaluation. Comprehensive analysis of system design and development, offering innovative solutions and insights.
D4 Communication This metric assesses the clarity and effectiveness of the student's written communication. It evaluates the organization of ideas, language clarity, structure, and the presence of language errors. A higher score indicates clear and concise communication with well-structured content	Poor communication. Lack of clarity, disorganized structure, and numerous language errors.	Limited communication. Limited clarity, weak structure, and several language errors.	Basic communication. Adequate clarity, reasonable structure, and some language errors.	Good communication. Clear and concise language, well-structured paragraphs, and few language errors.	Strong communication. Very clear and concise language, coherent organization, and minimal language errors.	Exceptional communication. Exceptionally clear and concise language, impeccable organization, and no language errors.	Exemplary communication. Outstanding clarity, perfect organization, and language mastery, enhancing the impact of the coursework
D5 Referencing This criterion focuses on the proper citation of academic literature and industry best practices. It examines the accuracy and consistency of referencing throughout the coursework. A higher score reflects meticulous and thorough citation practices.	Inadequate or missing references. Lack of proper citation of academic literature and industry best practices.	Limited referencing. Insufficient or inconsistent citation of academic literature and industry best practices.	Basic referencing. Adequate citation of academic literature and industry best practices with some inconsistencies	Good referencing. Proper citation of academic literature and industry best practices with few inconsistencies.	Strong referencing. Consistent and accurate citation of academic literature and industry best practices	Exceptional referencing. Impeccable and thorough citation of academic literature and industry best practices	Exemplary referencing. Exceptional and meticulous citation of academic literature and industry best practices, setting a gold standard
D6 Employability This metric evaluates the student's readiness for professional roles related to the coursework topic. It considers the evidence of practical application, real-world relevance, and the demonstration of employability skills such as problem-solving, innovation, and adaptability. A higher score suggests strong readiness for professional engagement.	Fails to demonstrate employability skills. Lacks evidence of practical application and readiness for professional roles.	Limited demonstration of employability skills. Minimal evidence of practical application and readiness for professional roles.	Basic demonstration of employability skills. Some evidence of practical application and readiness for professional roles.	Adequate demonstration of employability skills. Effective evidence of practical application and readiness for professional roles.	Good demonstration of employability skills. Strong evidence of practical application and readiness for professional roles.	Exceptional demonstration of employability skills. Exceptional evidence of practical application and readiness for professional roles.	Exemplary demonstration of employability skills. Outstanding evidence of practical application and readiness for professional roles.

Marking Scheme

	Task and marks allocation	Total Mark
	Part A (System Design (35%)	
1.	Comprehensive design of an innovative information retrieval system	10
2.	Clear and detailed explanation of system architecture and data flow	10
3.	In-depth discussion of retrieval methods, algorithms, or techniques used to ensure relevance and effectiveness in the system design	15
	Part B: Development and Implementation (25%)	
1.	Detailed development plan, including technology and tool selection	10
2.	Thoughtful consideration of data security and privacy measures for both structured and unstructured healthcare data	5
3.	Effective demonstration of system functionality through a prototype or demonstration	10
	Part C: Evaluation and Optimization (20%)	
1.	Comprehensive evaluation plan covering effectiveness, usability, and relevance, including user testing and performance metrics	10
2.	Well-structured strategies for ongoing optimization, considering feedback and technological advancements	10
	Part D: Overall, Clarity and Organization of Content (20%)	
1.	Coherent organization of the coursework, logical flow, and transitions:	5
2.	Clear and concise language, well-structured paragraphs, and impeccable formatting:	5
3.	Effective use of relevant examples to illustrate key points	5
4.	Expectational Integration of academic literature, industry best practices, and citations, demonstrating research	5
	TOTAL MARKS	100

The work on this paper is a total of 100 marks, which is 100% of overall assessment.

End