University of South Wales
Prifysgol De Cymru

Faculty of Computing, Engineering and Science

Assessment Cover Sheet and Feedback Form 2023-24

Module Code:	Module Title:	Module Team:
CS2S571	Databases and Data Modelling	Dr Shiny Verghese
Assessment Title and Tasks: Practical Coursework 2		Assessment No. 2
Date Set: **09-Jan-24**	Submission Date: **19-Apr-24**	Return Date: **21-May-24**

IT IS YOUR RESPONSIBILITY TO KEEP RECORDS OF ALL WORK SUBMITTED

Marking and Assessment
This assignment will be marked out of 100% This assignment contributes to 50% of the total module marks.
Learning Outcomes to be assessed (as specified in the validated module descriptor https://icis.southwales.ac.uk/): 1) To design a relational database including conceptual, logical and physical design, describe the components, explain the concept of data independence and demonstrate use of SQL to elicit information from a database. 2) To compare contrast and describe major approaches to storing and processing large volumes of data, understand the difference between relational and NoSQL database, use markup language(s) to model information, and demonstrate understanding of issues concerning database security and integrity.
Provisional mark only: subject to change and / or confirmation by the Assessment Board

Marking Scheme:

	Fail	Narrow Fail	3rd Class / Pass	Lower 2nd Class / Pass	Upper 2nd Class / Merit	1st Class / Distinction
Design aspects 15%	☐ Very poor other design aspects accompanying the formal parts	☐ Poor other design aspects accompanying the formal parts	☐ Satisfactory other design aspects accompanying the formal parts	☐ Good other design aspects accompanying the formal parts	☐ Very good other design aspects accompanying the formal parts	☐ Excellent other design aspects accompanying the formal parts. Extra formal design may be included and are completed to a high standard
Code 50%	☐ Very poor. Code does not compile or run	☐ Poor. Code compiles & runs, but the software does not fulfil the client requirements	☐ Satisfactory. Code compiles & runs, and the software does only partially fulfils the client requirements	☐ Good. Code compiles & runs, and the software fulfils most of the client requirements	☐ Very good. Code compiles & runs, and the software fulfils all the client requirements	☐ Excellent. Code compiles & runs, and the software fulfils all the client requirements. Additional features included that could be an asset to the business requirements of the client.
Technical Interview 35%	☐ Very poor. Does not understand the code. No understanding of Database concepts.	☐ Poor. Student somewhat understands parts of the code. Somewhat understands Database concepts	☐ Satisfactory. Student fully understands the code. Satisfactory understanding of Database concepts.	☐ Good. Student shows good understanding of Database concepts and also shows good understanding of how issues could be fixed, or what improvements could be made to the code.	☐ Very good. Student shows very good database design and programming skills. Student shows very good understanding of how issues could be fixed, or what improvements could be made to the code. Fair understanding of database administration and security implementation.	☐ Excellent. Student shows excellent database design and programming skills. Student shows very excellent understanding of how issues could be fixed, or what improvements could be made to the code in addition to database administration and security implementations.

Task

You have been shortlisted for a NoSQL developer position and you are required to complete an application(using C# and MongoDB) to exhibit your database programming skills and record a video-based technical interview. The basic requirements for the application to be developed is provided below.

Client Brief: Expert-TW Analytics

Expert-TW Analytics is a predictive intelligence company and uses Geospatial data to build a powerful suite of predictive retail analytics. To showcase your software developer skills, your objective is to use any geospatial dataset (GeoJSON Data) and develop an application to exhibit basic requirements such as CRUD operations including the display of Google maps with location pins derived from the dataset.

Following this task, you must complete a video based technical interview. The interview will be based on general database concepts and partial code testing to make sure you are the right candidate for the job. Candidate will have to share screen to solve simple code questions during the recording of the interview.