CT511 – PROJECT Details

Overview

Students are pre-assigned to a database.

Part A: Conceptual Data Model (5%)

In Part A students are expected to develop a Conceptual Data Model (CDM). You are required to:

1. Research the allocated system.
2. Create a Conceptual Data Model using Erwin (or a similar tool) identifying the entity types and the degree of the relationships (note: you need to include a minimum of 12 entity types).
3. Type up a Conceptual Data Model Report explaining the assumptions/decisions underlying the CDM.

Part B: Logical Data Model (9%)

In Part B students are expected to develop a Logical Data Model (LDM). You are required to:

1. Review the design of the LDM, modifying the CDM if considered necessary. Modifications to the CDM are simply to improve your design going forward; you cannot resubmit a revised CDM for consideration in lieu of marks allocated to Part A. However, any revisions to the CDM will be submitted as part of the LDM Report.
2. Select primary and foreign keys.
3. Identify attributes for your entity types.
4. Identify the data types for each version of the database (i.e.) MS Access; Oracle.
5. Establish rules.
6. Map to relations.
7. Populate with sample data (minimum 3 rows).
8. Engage in normalisation
9. Type up a Logical Data Model Report.

Part C: Physical Data Model and Database Design (14%)

In Part C students are expected to develop Physical Data Models (PDMs) and Database Code. You are required to:

1. Review the design of the Physical Data Models modifying the CDM/LDM if considered necessary. Modifications to the CDM/LDM are simply to improve your design going forward; you cannot resubmit a revised CDM/LDM for consideration in lieu of marks allocated to Part A or Part B. However, any revisions to the CDM/LDM will be submitted as part of the PDM Report.
2. The Physical Data Models must contain all of the objects to be present in the database including the table name, column name, data types, null, not null, unique constraint, PKs, FKs, etc., for each version of the database (i.e.) MS Access and Oracle.
3. Type up the Physical Data Model Report.
4. Create the planned database, set your data types and data integrity controls.
5. The database should be complete with reports, relevant queries and any forms/sub forms necessary to perform insert, update, delete and retrieve functions.
6. It should include a switchboard/menu form.

Guidelines

The database must provide vital services/functionality to the business

The database should contain a minimum of 4 core tables
(Note: tables used for lookup or created using the make table query are not counted as core tables)

SUBMISSIONS AND FILE NAMING CONVENTIONS

All documentation, models, databases must be submitted using the following notations. All Reports must be properly formatted using Styles (Heading 1; Heading 2, Heading 3, Normal, etc.). All reports must contain a TOC, page numbers, etc. All reports must record the names/student numbers of all of the team members on the cover page. Marks will be deducted for poorly formatted documents or missing information.