IS455 – Database Design & Prototyping Instructor: Kevin Trainor Assignment: Final Project Deliverables Course Component: Final Project Grading Rubric

Submission

Timeliness (5 available points)

Requirements

Must be submitted by date and time indicated in the weekly schedule.

Percent Credit	Description
100	On Time
0	Late
0	Not submitted or submitted too late

File Submitted (10 available points)

Requirements

Project submission must be in a gradable state upon first submission. Deduction will be made for students who must resubmit their work due to an ungradable prior submission.

Submit only 1 file.

File type must be .ZIP.

Submitted file must be named according to the instructions.

When unzipped, the file must produce a data structure that is named and organized as described in the instructions.

Files within the data structure must be named as described in the instructions.

Percent Credit	Description
100	Meets all expectations.
50	Meets nearly all expectations.
0	Does not meet expectations.
0	Not submitted or submitted too late.

Documentation

System/Prototype Description (5 available points)

Requirements

The document includes all sections as defined in the instructions for the Final Project Proposal.

The content in the document is coherent and well-written.

The details of the document match those of the database and prototype as submitted.

Description
Meets all expectations.
Meets nearly all expectations.
Meets most expectations.
Meets some expectations.
Meets few expectations.
Meets nearly no expectations.
Meets no expectations.
Not submitted or submitted too late.

Database Schema ERD (5 available points)

Requirements

The ERD matches the schema script as submitted.

The diagram shows the full extent of the database schema.

The diagram follows accepted formatting guidelines.

The diagram was creating using the MySQL Workbench modeler/diagrammer.

Percent Credit	Description
100	Meets all expectations.
90	Meets nearly all expectations.
75	Meets most expectations.
50	Meets some expectations.
25	Meets few expectations.
10	Meets nearly no expectations.
0	Meets no expectations.
0	Not submitted or submitted too late.

Database

Scope and Completeness (15 available points)

Requirements

The database design meets the moderate size (approximately 8 tables) requirement.

The tables in the database provide data that are adequate to meet the requirements described in the System/Prototype Description.

Percent Credit	Description
100	Meets all expectations.
90	Meets nearly all expectations.
75	Meets most expectations.
50	Meets some expectations.
25	Meets few expectations.
10	Meets nearly no expectations.
0	Meets no expectations.
0	Not submitted or submitted too late.

Logical Design Features (10 available points)

Requirements

All repeating elements have been removed including lists, repeating attributes, and repeating attribute groups.

All redundant attributes have been eliminated including truly redundant attributes and those attributes than can be derived.

All redundant relationships have been eliminated including truly redundant relationships and those relationships than can be inferred.

All misplaced attributes have been relocated.

All misplaced relationships have been relocated.

Free-form text fields have been replaced with relationships to lookup tables wherever feasible.

Many-to-many relationships have been implemented using associative tables.

Foreign keys are defined to implement all relationships.

Percent Credit	Description
100	Meets all expectations.
90	Meets nearly all expectations.
75	Meets most expectations.
50	Meets some expectations.
25	Meets few expectations.
10	Meets nearly no expectations.
0	Meets no expectations.
0	Not submitted or submitted too late.

Physical Design Features (10 available points)

Requirements

Primary keys are defined for all tables.

AUTO_INCREMENT feature is used where appropriate for primary key columns.

Appropriate data types all defined for all columns.

Default values are defined for columns as appropriate.

Columns are defined with NOT NULL constraints except where NULL is appropriate.

A UNIQUE column constraint is defined for non-primary-key fields where appropriate. This is particularly important for name columns on lookup tables.

Unique constraints are defined on foreign key columns where appropriate to implement cardinality constraints.

Foreign keys are defined with proper foreign key constraints.

Further indexes have been defined where needed.

Percent Credit	Description
100	Meets all expectations.
90	Meets nearly all expectations.
75	Meets most expectations.
50	Meets some expectations.
25	Meets few expectations.
10	Meets nearly no expectations.
0	Meets no expectations.
0	Not submitted or submitted too late.

Schema Script Features (5 available points)

Requirements

The schema script is properly named as 01_restore_populated_database.sql.

Character encoding set to UTF8MB4.

Character collation set to be compatible with UT8MB4 encoding.

Database engine set to InnoDB.

Database name set to a value other than "mydb".

The schema script begins with DROP SCHEMA IF EXISTS `schema_name`; CREATE SCHEMA IF NOT EXISTS `schema_name`;

The schema script includes INSERT statements that load initial data into the database.

Percent Credit	Description
100	Meets all expectations.
90	Meets nearly all expectations.
75	Meets most expectations.
50	Meets some expectations.
25	Meets few expectations.
10	Meets nearly no expectations.
0	Meets no expectations.
0	Not submitted or submitted too late.

Loaded Sample Data (5 available points)

Requirements

The schema script (01_restore_populated_database.sql) loads sample data.

Rows are loaded for all tables.

Foreign key values are properly populated to create relationships.

Missing values have the value NULL.

Data loaded is sufficient to demonstrate the Report SQL Scripts.

Data loaded is sufficient to demonstrate the Database Maintenance SQL Scripts.

Loaded values conform to the database integrity constraints implemented in the schema.

Percent Credit	Description
100	Meets all expectations.
90	Meets nearly all expectations.
75	Meets most expectations.
50	Meets some expectations.
25	Meets few expectations.
10	Meets nearly no expectations.
0	Meets no expectations.
0	Not submitted or submitted too late.

SQL Scripts

Report SQL Scripts (15 available points)

Requirements

Scripts must be properly numbered and descriptively named.

Report scripts must present data needed to perform business operations that is not available by using MySQL Workbench tools to list the contents of single tables.

Reports must be designed such that users can accomplish a task without needing to consult a series of reports. Whenever possible, a task should be achievable using a single report.

Reports provided should match the scope of the prototype as described in the System/Prototype Definition document.

SQL code in scripts must follow all coding standards set for coding assignments.

Scripts must run successfully when run sequentially based upon script numbers.

Percent Credit	Description
100	Meets all expectations.
90	Meets nearly all expectations.
75	Meets most expectations.
50	Meets some expectations.
25	Meets few expectations.
10	Meets nearly no expectations.
0	Meets no expectations.
0	Not submitted or submitted too late.

Database Maintenance SQL Scripts (15 available points)

Requirements

Scripts must be properly numbered and descriptively named.

Maintenance scripts should be provided for all scenarios that require INSERTs, UPDATEs, or DELETEs to more than one table.

Maintenance scripts should be provided for important scenarios that one would demonstrate when training a new user.

Maintenance scripts must not break database integrity rules. So, scripts should deal with rows in child tables that are pointing to a row in a parent table before deleting the row in the parent table.

Maintenance scripts provided should match the scope of the prototype as described in the System/Prototype Definition document.

SQL code in scripts must follow all coding standards set for coding assignments.

Scripts must run successfully when run sequentially based upon script numbers.

Percent Credit	Description
100	Meets all expectations.
90	Meets nearly all expectations.
75	Meets most expectations.
50	Meets some expectations.
25	Meets few expectations.
10	Meets nearly no expectations.
0	Meets no expectations.
0	Not submitted or submitted too late.

Total Available Points = 100