CSE 3330 – Database Systems, Fall 2016

Instructor: Medhat Saleh

Due Date: September 23th, 2016, by 11:59pm

Project 1: Description and Deliverables

Create and Populate the Database. Create the database in MySQL and insert the given data set. This is the first project from a series of four.

This project must be done individually. No copying is allowed.

Description: Creation of Airline Database

In this project, you create a database for the given relations into Relational database management system (RDBMS) by using DDL.

**Platform

We ONLY use MySQL RDBMS on <u>Omega@UTA.EDU</u> for testing your project. You need to make sure that your database is runnable on OMEGA/MYSQL command line.

Please contact to OIT Computing Helpdesk to open an account and check your login on MYSQL with them to make sure your account works on *Omega@UTA.EDU* and MYSQL properly.

Instruction to create your database

1. Create Script [netID_myDBcreate.sql]

Make a script file containing the SQL statements that create your entire database schema, say netID_myDBcreate.sql. This includes the tables with their attributes, constraints, and indexes. Make sure you create the tables that do not reference any other tables first. Otherwise, if you give a CREATE statement and the referenced entity does not exist, the CREATE will fail.

2. Insert Script [netID_myDBinsert.sql]

Make a script file containing INSERT statements that populate the tables created in step 1, say netID_myDBInsert.sql. This script file will contain SQL commands to fill data in your tables. You should insert about 710 rows in each table. **All data set should be written in script file through insert command.**

3. Update Script [netID_myDBupdate.sql]

Create a script that will update the database through a series of updates on any arbitrary row or column on any table. This will allow you and us to verify the correctness of your database when the database is updated/changed.

Note : Pick 5 tables randomly and write 5 Update statements on those tables. You can pick any attributes for update. make sure about updating on the attributes which they are defined as FK and PK and the relationships of tables.

4. Drop script [netID_myDBdrop.sql]

Create a script file that drop all the tables you have created for your project. This will be useful to start from a clean slate. You should be able to clean everything through this script and reload the database instance via steps 1 and 2.

Again, make sure you drop tables that are not referenced by other tables first. If you try to drop a table that is being referenced by some other table, the DROP will fail.

Submission instruction

Submit, electronically, all files.

Add a header to each of your submitted files submission using following format:

Class: CSE 3330 Semester: Fall 2016

Student Name: your name (Last, First, NETID)

Student ID: your id Assignment: project #1

For the electronic submission purposes, combine all of the required files in a **one zip file** names **pr1_lname_fname.zip** and submit through BalckBoard.

Note: submission rule is mandatory and student will loose 5% if does not follow the rule.

Some Useful Tips:

Make sure you transform all your constraints into appropriate constraints on the corresponding tables.

Your username will be your **NetID** and OIT will provide a new password to access to MYSQL on OMEGA.UTA@UTA.EDU.

(1) To Login on OMEGA.UTA@UTA.EDU:

ssh your NETID@omega.uta.edu

(2) Connecting to MySQL:

mysql -u NETID -p PASS

(-u and NETID) and (-p and password)

(3) Find your exiting database to create tables (no need to create a database)

mysql> show databases; mysql> use NETID; mysql> show tables;

(4) Running script file:

source *.sql;

Here are useful links may you are interested.

https://www.ntu.edu.sg/home/ehchua/programming/sql/MySQL Intermediate.html
http://dev.mysql.com/