Business Information Modeling Project

# Goal

To enable students to experience the process of building a non-trivial database-backed web application.

# Due date

12/04/2014

# Tasks

1. Choose any area that interests you – this does not necessarily have to be about business. Here are a few examples: Library system, Car rental system, Theater ticket sales system (like Ticket Master), Airline reservation system, University registration system and Inventory management system -- these are just examples and you can choose any area that interests you.
2. Develop an ER diagram for your chosen area – use Oracle SQL Developer Data Modeler.
   1. Your ERD needs to have at least 8 entity types and at least one of them must be an associative entity type.
   2. Having a unary relationship will be a bonus, but is not essential.
   3. Every integer primary key must be “autonumber”
3. After you complete the ERD and generate the schema, look at the steps mentioned in the document "Steps to complete the course project – updated.docx." This document will tell you precisely what you need to and prepare you fully to successfully complete the project.
4. Be sure to specify a data type (like Integer or Varchar with specific length) for every attribute on the ERD. Without this you will not be able to generate a clean SQL to create the database.
5. I strongly recommend giving every associative entity type its own primary key rather than using key migration. This will simplify the task of building the APEX application.
6. Once you have completed the ERD, generate the database schema (SQL file)
7. Using what you learned from the hands-on exercises described in step 3 above, load the SQL file for your database onto Oracle APEX.
8. Build an application in APEX.
   1. You can choose any theme you like.
   2. Your application should have the ability to maintain (add, modify and delete data) all your main tables (the ones which are not associative entity types) and should have at least one master-detail form (described in the hands-on exercises).
   3. You must use lists of values for every foreign key attribute
   4. On every form, you should have user-friendly labels
   5. On every form, you should display the primary key value as a display-only field.
   6. I will provide instructions later on exactly what you will need to submit for the project.