CS 260 - Database Systems

Lab 10

This lab will focus on creating triggers written in PL/SQL.

mlb_master_trigger.sql

This script is ultimately responsible for allowing modifications to the data in the mlb_master table to be recognized using an audit table. The audit table will identify who made a change, when that change was made, and to which record a change was made, but no further detail on exactly which fields were changed. The script should SHOW ERRORS after the creation of the trigger and consist of the following operations:

- Drop the mlb_master_audit table and mlb_master_audit_seq sequence if they exist
    - You should do so using anonymous blocks that catch the appropriate exceptions thrown if the table or sequence does not exist
    - See the Oracle MLB installation script from assignment 1 for an example

- Create the mlb_master_audit table, consisting of the following fields:
    - audit_id (surrogate key)
    - audit_change (either “insert”, “update”, or “delete”)
    - audit_player_id
    - audit_user
    - audit_date

- Create the mlb_master_audit_seq sequence for use with the mlb_master_audit table

- Create a trigger named “mlb_master_trigger” that inserts a record in the mlb_master_audit table when a new record is inserted, updated, or deleted in the mlb_master table
    - You will need a DECLARE block before the BEGIN block to declare (1) a variable that will store the type of operation (“insert”, “update”, or “delete”) and (2) a variable to store the id of the player being inserted/updated/deleted
    - You will need conditions in the BEGIN block that use INSERTING (returns a Boolean that indicates if the operation is an INSERT), UPDATING (returns a boolean tha indicates if the operation is an UPDATE), and DELETING (returns a boolean that indicates if the operation is DELETE) to set the values of the previously mentioned variables

- Commit the transaction