

CIS338 – Final Project

This project is worth 100 points and is due by **11:59 PM** on **Tuesday, April 24th**

Build the initial Just Lee Books database using the attached script named **JLDB_BUILD.sql**

Create a script named **PROJECT_UPDATES.sql** that contains the following commands

Modify the **BOOKS** table to include a column named **QUANTITY_ON_HAND**

It should hold a value up to 999

It should have a default value of 0

Update the **QUANTITY_ON_HAND** to 1 for all books in the **BOOKS** table

Build a new table named **REORDER** with the following columns:

REORDER#

REORDER_DATE

REORDER_ISBN

REORDER_QUANTITY

REORDER_RECEIVED

The **REORDER#** column should be defined as an identity column and the primary key for the table

The **REORDER_ISBN** column should be a foreign key on the **ISBN** column in the **BOOKS** table

CIS338 – Final Project

Create a package named **JUST_LEE** that contains the following objects:

Procedure named **SHIP_ORDER** that receives an ORDER# and performs the following logic

Perform the following validations.

Confirm that the order has not been shipped yet

ORDERS.SHIPDATE is null

Otherwise

Raise an error "ERROR - Order# <ORDER#> was shipped on <MM/DD/YYYY>"

Confirm that every book has the ordered quantity on hand

ORDERITEMS.QUANTITY >= BOOKS.QUANTITY_ON_HAND

Otherwise

Raise an error "ERROR – <ISBN> is not available"

If all validations are successfully passed

Update QUANTITY_ON_HAND for each ISBN in the order

Update SHIPDATE of order to current date on the server

CIS338 – Final Project

Procedure named **INSERT_REORDER** that receives the ISBN of a book to re-order and performs the following logic

Insert a row into the newly built REORDER table

Allow the REORDER# column's identity value to be generated by the database

Set the REORDER_DATE to the current date on the server

Set the REORDER_ISBN to the value passed to the procedure

Set the REORDER_QUANTITY to 10

Set the REORDER_RECEIVED to null

CIS338 – Final Project

Procedure named **RECEIVE_REORDER** that receives a REORDER# and performs the following logic

Confirm that the re-order is still pending

REORDER.REORDER_RECEIVED is null

Otherwise

Raise an error "ERROR – Re-Order# <REORDER#> was received on <MM/DD/YYYY>"

If the order is still pending

Update QUANTITY_ON_HAND for the ISBN

Update REORDER_RECEIVED to current date on the server

CIS338 – Final Project

Trigger named **BOOKS_QUANTITY_TRG** that performs the following logic

Fires when the QUANTITY column in the BOOKS table is set to 0

Should be executed for each row

Should execute the INSERT_REORDER procedure in the JUST_LEE package

Pass the ISBN of the book that fired the trigger