

Project Description:

Expand on the existing program built for Assignment #2. Make the following enhancements

- Refactor the code to use a Singleton or Factory pattern to create connections to the database.
- Refactor the code to use a Dao (Data Access Object) pattern as described in class.
- Refactor the code to use package names for the project “com.mcda5510.*”
- Using the example used in class build a SOAP based web service that will contain the below required calls.
- Deploy the web service to “dev.cs.smu.ca” (will go over process on Wednesday 31st)
- Using the example described in class develop a client with a main that calls the web service. The client data can be hardcoded or entered via command line

As with previous assignments

- Submit repo in and eclipse & project files to GitHub
- Run the server in Linux (dev.cs.smu.ca)
- Submit result file to directory” Output” in repo
- Submit output log file from Linux to” output” directory

Required Methods for Webservice

// Given a transaction object saves a row in the database (return success)

// fails if ID exists in DB and prompts user to use update

Boolean = createTransaction(Transaction txn)

// Given a transaction object saves a row in the database (return success)

// fails if ID does not exist in DB and prompts user to use create

Boolean = updateTransaction(Transaction txn)

// Given a transaction ID returns a transaction object

Transaction = getTransaction(int txnID)

// Given a transaction ID deletes a Transaction row in the DB

Boolean = removeTransaction(int txnID)

Main method should call and create log file with

create (output success Boolean with message)

get (prints object)

update (edit values)

get (prints object)

create (same object) – should fail based on Primary key

remove (based on primary key)

create (same object) – should succeed based on Primary key

Validation (in DB or Code)

- All fields required

- CreatedOn (current date time)
- CreatedBy System.getProperty("user.name");
- All varchars should not contain the following characters:
; : ! @ # \$ % ^ * + ? < >

TABLE NAME `Transaction`

`ID` int(11) - PRIMARY KEY
 `NameOnCard` varchar(256)
 `CardNumber` varchar(45)
 `UnitPrice` decimal(10,0)
 `Quantity` int(11)
 `TotalPrice` decimal(10,0)
 `ExpDate` varchar(16)
 `CreatedOn` datetime
 `CreatedBy` varchar(45)

Submission:

Code must be submitted in your repo called "A#####_MCDA5510"

Code must be located under a directory called "Assignment3"

Optional: Output of program must be in a directory called "Assignment3\Output"

Server and Client Log files of program must be in a directory called "Assignment3\logs"