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| **MCDA5550** | **Assignment 1** | **Due: Jan. 25** |

**Project Description:**

Expand on the existing code provided in class and Make the following enhancements

* Develop a database table for storing Transaction data based on script below
* Add these fields to the Transaction class
* Refactor the code to use a Dao (Data Access Object) pattern as described in class use this database

As with previous assignments

* Submit repo in and eclipse & project files to GitHub
* Submit result file to directory” Output” in repo

**Required Methods for DAO**

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

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

* + - 1. Boolean = createTransaction(Transaction trxn)

// 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

* + - 1. Boolean = updateTransaction(Transaction trxn)

// Given a transaction ID returns a transaction object

* + - 1. Transaction = getTransaction(int trxnID)

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

* + - 1. Boolean = removeTransaction(int trxnID)

**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########\_MCDA5550”

Code must be located under a directory called “Assignment1”