

CSCI: 3901 Assignment 6

Winter 2020

External Documentation:

Why do you believe your solution operates:

Based on the query and requirement my program is fulfilling the criteria and are open for modifications.

Overview:

This program DailyTransaction extracts the db query and call inventoryControl interface. It has been written in Java language without using the collections framework.

A summary of the Northwind food distribution company information requirements is in the CSCI 3901 course assignment #6 problem 6 information in the course's git repository "<https://git.cs.dal.ca/courses/2020-winter/csci-3901/assignment-6/souvik/-/tree/master>".

The solution consists of class "DailyTransaction" and it includes the following methods and sub:

- **Ship_order(int orderNumber):-** This method updates the unitStock and shippedDate when the order is shipped from by the suppliers.
- **int Issue_reorders(int year, int month, int day):-** The method returns the number of suppliers to the calling method.
- **Receive_order(int internal_order_reference):-** This method updates the price of the item received and for each productid updating the productCost and UnitPrice in products purchaseDetails tables.

Predefined classes used as part of the program:

- No predefined classes were used as part of the program.

Predefined Interfaces used as part of the program:

- No predefined interfaces were used as part of the program.

Predefined Libraries and jar files used as part of the program:

We have used mysql-connector-java-8.0.19.jar file for establishing jdbc connectivity.

- `import java.sql.*;`

- `import java.util.*;`

References:

- Referred <https://git.cs.dal.ca/courses/2020-winter/csci-3901/lab-6/souvik.git> for SQLMain.java and MyIdentity.java
- Reference <https://www.edureka.co/blog/random-number-and-string-generator-in-java/#Java.util.Random>

Files and external data:

The program consists of the following files:

- **DailyTransaction.java** - main for the program that calls the interface method and fires the query.
- **OrderException.java** - This Class is called when exception is thrown.
- **inventoryControl** – This is the interface which contains the abstract methods
- **MyIdentity.java** – This class consists of the login credentials

Data structures and their relations to each other:

- No data structures used as part of this program.

Assumptions:

- We have assumed that Northwind food distribution database column names are the same.
- Current order dates are of current date.

Choices:

- In the case of invalid input, the user is asked to enter the correct data.
- We have assumed that if ReorderLevel is 0 then incrementing it with 5.

Limitations:

- In case tables in the database adds new fields, the orderDates are quite old and the order placed are of current date