**Order Management System**

**Note: Provided project contains rough structure for the problem statement. New methods, classes, variables can be added as required. The database script is provided in the project.**

Create Project OrderManagementSystem in a separate workspace.

Create package com.psl.beans

Create following beans & Enum constants

Enum units – kg, gallon,grams, nos

StockItem(id,name,description,unit,price per unit,mfg\_date,Best\_before\_dt)

OrderItem (stockItemname, qty)

PurchaseOrder(orderno,orderdate,shipdate, orderedItemslist) implements Serializable

Address (street, city,state,zip)

Customer (id,name,address,email, purchaseOrderList)

Create package com.psl.exceptions

Create your own Exception InsufficientDataException.

Handle InsufficientDataException, record the exceptions and store into log file.

Create database OrderManagementDB and create following tables into it.

Customer\_details stores customer info

StockItem\_details stores stockItem Info

PurchaseOrder\_details(orderno,order\_date,ship\_Date)

OrderedItem\_details(orderno,StockItemid,qty)

Customer\_order\_details(customer no,Orderno);

Shipped\_order\_details(customer no,orderno,order\_date,ship\_Date, ,StockItemid,qty,shipped\_by\_person)

Create package com.psl.dao

Create interface ConnectionManager

Connection getDBConnection(String url,String user,String pwd);

void closeConnection() ;

Create class DBConnenctionManager implements ConnenctionManager

Create class CustomerManagerDb

Void insertCustomers(ArrayList customers)

Inserts Customers details into database

Create class PurchaseOrderManagerDB

Boolean insertOrderItem(OrderItem);

Boolean insertPurchaseOrder(PurchaseOrder);

Boolean insertcustomerOrder(int,int);

ArrayList<PurchaseOrder> getAllOrdersByCustomer(int cust\_id)

Return all orders placed by customer

ArrayList<PurchaseOrder> ordersToBeShipped(Date fromdate, Date todate)

Return all orders to be shipped in specified duration.

void deletePurchaseOrder(int orderno)

delete purchase orders

void deleteOrderItem(int orderno)

delete OrderItems

void insertShippedOrders(cust\_no,Arraylist PurchaseOrder,ArrayList orderItems,String PersonName)

Inserts data into shipped\_order\_details

Class StockItemManagerDB

Void insertStockItems(ArrayList stockItemlist)

Inserts Stock Items details into data base

ArrayList<StockItems> getStockItems()

Return StockItems List

void deleteStockItems(int no)

delete stockItems

Create package com.psl.utility

Class PurchaseOrderManager

ArrayList<Customer> populateCustomers()

Read data from file provided to you customers.txt and create ArrayList.

ArrayList<StockItems> populateStoreItems ()

Read data from items.txt file and create ArrayList.

Void createOrder(int cust\_id,OrderedItems,ship\_date)

* Purchase order for customer will be generated for current date and shipping date will set as per customer’s request. If customer does not specify then set the date after 6 days of order date.

void storePurchaseOrder()

Store PurchaseOrder Object into File. Don’t store Stock Items details (name file as PoNo\_99.ser in folder Purchase\_Order.

void shipOrders()

Removes all orders from Purchase\_Order\_details & order\_Item\_details table and store into shipped\_order table.

Generate bill for customer and create File using PrintWriter class in following format.

Customer id : XXX

Customer name : XXXX

Order Date : XXXX ShipDate : XXXX

Order Item Qty Price Total Price

Xxxx xxxx xxx.xx xxxx.xx

Xxxxx xxxx xxx.xx xxxx.xx

Grand Total : \_\_\_\_\_\_

Store this file in folder CustomerBills\bills\_date\customerId

Filename should be custname\_date\_poNo

Void removeExpiredItems()

Removes expired Items from arraylist() as well as Database.

Void showItems()

Display all items List. Sort Items as per bestbeforedate Items(oldest date to latest date) sort using java code.

Void applyDiscountOnItems ()

Find the list of Items which are expiring in next 2 month apply 40% discount on that Items and update the database.

Map<Customer,ArrayList<PurchaseOrder>> getOrdersByCustomer()

Returns all customers along with list of purchase Orders placed by him.

Void displayDiscountedItemsList()

Show discounted Items list to user

Create package com.psl.client

Create class client

Write a main method to complete following activities

* Populate customer and stock Items from file into database.
* Display All Items to customer along with discounted Items.
* Create Purchase Order for 3 customers.
* Generate Bill and show Console message write bill generation message into log file.
* Print all the Orders details along with customer id and Name.
* Store PurchaseOrder Objects into file.