Allergo Music Store

[Company name] | [Company address]

Design phase – identifying system transactions

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[Year]

**tem purchase – regular store**

User – clerk

Input – UPC, Quantity

Output  - Total Bill for the Purchase or Cancelled

Basic case –

                     Clerk enters all the items for that particular purchase. System checks for the item in the database. System generates a bill with amount due.

Exception

    If the item doesn’t exist in the database, the system will return an error and the transaction is Cancelled.

**Register Customer**

User – customer

Input – Customer id, password, name, address, phone number

Output – OK or Cancelled

Basic case

       System checks that the given ID doesn’t already exist. System creates a new entity Customer and returns “OK”

Exception

If the user id already exists in the system, throws error requesting for another customer id. Can input another customer id or cancel the registration. Cancelling the registration will return “Cancelled”.

**Online Purchase**

User – customer

Input – customer id, password and category, item title and quantity

Output – Items are added to virtual cart.

Basic case

        Customer logs in and selects items to add to their virtual cart. Item is verified against warehouse stock and added to virtual cart if available.

Exception

  If the requested quantity is not available for any item. System asks customer to accept the existing quantity. If customer chooses OK, items are added to the cart, otherwise items are not added.

**Online Delivery**

User – customer

Input – credit card number and expiry date

Output – order id and delivery date or Cancelled

Basic

Credit card information is verified with the credit card company. Once verified order is processed an order ID is generated. System returns an estimated delivery date based on the number of outstanding orders..

Exception

If the credit processing is failed. Order will not be processed and customer will be requested for new card information. New card information is entered or the customer can choose to cancel the transaction, which returns “Cancelled”.

**ITEM RETURN**

User – clerk

Input – transaction id, purchase date, receipt id

Output – refund issued or not eligible

Basic case

         System verified whether purchase was made within last 15 days and if true system issues refund either in the form of cash or credit, based on the method of purchase.

Exception

         If the purchase was not made in last 15 days, system rejects item return.

**Add or Remove suppliers**

User – Manager

Input – Name. Address, City, Status

Output – Supplier added or removed

Basic case

        System checks whether supplier exist or not . If a manager wants to add a supplier, it shouldn’t exist and to remove a supplier it should already exist in the database. Based on user selection, the supplier will be removed or added successfully.

Exception

       Supplier might already exist while adding or the supplier might not exist while removing. System will return a message, but do nothing.

**Shipment processing**

User – manager

Input – transaction id

Output – inventory update

Basic case

                   System checks for shipment’s transaction id and verifies the order with supplier. Accepts shipment, updates the stock for the delivered Item.

**Report Printing - Sales Breakdown**

User – Manager

Input – Date

Output – Report generated

Basic case

   System generate report based on the date. Data comes from queries on the Purchase entity in the system database.

Exceptions

**Report Printing - Items Low in Stock**

User – Manager

Input – Store name

Output – Report generated

Basic case

System generate report based on given store name.  Data comes from queries on the Item entity.  If the quantity for a specific item is less than 10, the item shows up on the report.

Exceptions

**Get Store and Item Info**

User – Customer or Clerk or Manager

Input – Store name, Item title

Output – Store name, address, city, phone, Item title, composer, publishing company or production company, price, taxable or non-taxable, stock or “Invalid Input”

Basic Case

System checks Store name and Item title, and they both exist.  Data comes from queries on the Store entity and the Item entity.

Exceptions

The Store name or Item title does not exist, then system outputs “Invalid Input”.

**Get All Suppliers for a Given Item**

User – Manager

Input – Item UPC

Output – Suppliers or “Invalid Item”

Basic Case

System checks Item UPC and item exists.  Data comes from queries on the Supplier entity that has a Supplies relationship with the Item entity.

Exceptions

The Item UPC does not exist, then system outputs “Invalid Item”.

**Show top 5 items and total quantity sold - by date range**

User - Manager, Clerk, or Customer

Input - Two dates to specify time period

Output - five item UPCs, item titles, and their respective quantities sold.

Base Case:

The system checks for a valid date range, then queries the Purchase set to find top 5 items sold in the time period. Data is returned to user.

Exceptions:

The date range provided is invalid, then “Input Invalid” is returned.

**Get the titles and stock of CD’s - by Artist**

User - Customer, Clerk, or Manager

Input - Artist or Lead singer

Output - CD title, stock

Base Case:

System checks for Artist within CD entity set, and it exists. All CDs for the artist are found, and the respective CD titles and stock are returned.

Exceptions:

The Artist does not exist within the CD entity set, then “Invalid Input” is returned.

**Get the titles of DVDs  - by producer**

User - Customer, Clerk, or Manager

Input - Producer

Output - DVD titles

Base Case :

The system checks within DVD entity set for a match for Producer, it exists. DVD titles of all DVDs with specified producer are returned.

Exceptions:

The system does not find a matching producer within DVD entity set. It then returns “Invalid Input”.