# ICE 408 DBMS LAB

**Assignment: 03**

**Task 1.** Create a database called Shops.

**Task 2.** Create 3 tables in the Shops database having the structure as shown below.

1. Table Name : CustomerAndSuppliers

|  |  |  |  |
| --- | --- | --- | --- |
| **Field name** | **Data type** | **Size** | **Requirement** |
| cusl\_id | Character | 6 | 1. Primary key 2. Starting with C or S and then 5 digits i.e. C00001 or S0001. |
| cusl\_fname | character | 15 | NULL not allowed |
| cusl\_lname | character | 15 | Use variable character size |
| cusl\_address | text | 50 |  |
| cusl\_telno | character | 12 | Must follow the format like 012-34567890 |
| cusl\_city | character | 12 | Default value is Rajshahi |
| sales\_amnt | money |  | Negative values not allowed |
| proc\_amnt | money |  | Negative values not allowed |

1. Table Name : Items

|  |  |  |  |
| --- | --- | --- | --- |
| **Field name** | **Data type** | **Size** | **Requirement** |
| item\_id | Character | 6 | 1. Primary key 2. Starting with P and then 5 numbers i.e. A0001. |
| item \_name | character | 12 |  |
| item\_category | character | 10 | Example: Electrical, Mechanical, Software, Books  etc. |
| item \_price | float | 12 | Negative values not allowed |
| item\_qoh | integer |  | Negative values not allowed |
| item\_last\_sold | date |  | Default value is current date |

2. Table Name : Transactions

|  |  |  |  |
| --- | --- | --- | --- |
| **Field name** | **Data type** | **Size** | **Requirement** |
| tran\_id | Character | 10 | 1. Primary key 2. Starting with T and then 9 numbers i.e. T000000001. |
| item \_id | character | 6 | Foreign key with reference to item table |
| cust \_id | character | 5 | Foreign key with reference to customer table |
| tran\_type | character | 1 | Either S or O, (S for sales Order to supplier) |
| tran\_quantity | integer | 12 | Only positive values. |
| tran\_date | date and  time |  | Default is current date |

**Task 3:** Insert some sample data into CustomerAndSuppliers and Item tables. **Task 4:** Write a stored procedure that prints out item categories, total number items available and average price of that category in the following format.

Category Total number of items Average Price

**Task 5:** Write a stored procedure that

1. Accepts as input i) category name and ii) price value
2. And shows the item details under that category that are cheaper than the accepted price value.

**Task 6:** Write a stored procedure that

1. Accepts as input i) category name and ii) price value
2. And increase the price of each item until the average price crosses the given price value.

**Task 7:** Write a trigger on Transaction that automatically updates the item\_qoh field of item table whenever a transaction takes place .

**Task 8:** Write a trigger on Transaction that automatically updates the sold\_amnt or proc\_amnt field of CustomersAndSuppliers table whenever a transaction happens.

**Task 9:** From Transaction table show a report of total transaction quantity for every item in the following format.

Item ID Total sales amount

A0001 34

A0002 20

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