* **Question 2: (Database Designing)**

Design the database architecture for an inventory management solution to keep track of the current inventory.

The database design should support alerting when the inventory goes below the thresholds.

**Sol**

***Demand Table***

(PK)OrderID

CustomerID

ProductID

Quantity

OrderDate

***Customer Table***

(PK) CustomerID

CustomerMetaData

***Product Table***

**(PK)**Product ID (varchar)

Inventory Name (varchar)

StartingInventory (int)

InventoryReceived (int)

InventoryShipped (int)

InventoryInStore (int)

***Supplier Table***

(PK) SupplierID

SupplierName

Address

***Supply Table***

(PK) PurchaseID

SupplierID

ProductID

Quantity

PurchaseDate

We can support alerting using trigger.

* **Bonus Question What is the complexity of the following code:**

void function(int n)

{

int i = 1, s =1;

while (s <= n)

{

i++;

s += i;

n += 1;

n /= 1;

printf("\*");

}

}

**Answer –**

**Worst case complexity of the above code is O(n^0.5)**