

## **Lab1 Using subqueries and the APPLY operator to retrieve data from the AdventureWorks database.**

### **Retrieve Product Price Information**

Adventure Works products each have a standard cost price that indicates the cost of manufacturing the product, and a list price that indicates the recommended selling price for the product. This data is stored in the SalesLT.Product table. Whenever a product is ordered, the actual unit price at which it was sold is also recorded in the SalesLT.SalesOrderDetail table. You must use subqueries to compare the cost and list prices for each product with the unit prices charged in each sale.

Q.1: Retrieve products whose list price is higher than the average unit price

Retrieve the product ID, name, and list price for each product where the list price is higher than the average unit price for all products that have been sold.

Q.2: Retrieve Products with a list price of 100 dollars or more that have been sold for less than 100 dollars

Retrieve the product ID, name, and list price for each product where the list price is 100 dollars or more, and the product has been sold for less than 100 dollars.

Q.3: Retrieve the cost, list price, and average selling price for each product

Retrieve the product ID, name, cost, and list price for each product along with the average unit price for which that product has been sold.

Q.4: Retrieve products that have an average selling price that is lower than the cost

Filter your previous query to include only products where the cost price is higher than the average selling price.

### **Retrieve Customer Information**

The AdventureWorksLT database includes a table-valued user-defined function named dbo.ufnGetCustomerInformation. You must use this function to retrieve details of customers based on customer ID values retrieved from tables in the database.

Q.5: Retrieve customer information for all sales orders

Retrieve the sales order ID, customer ID, first name, last name, and total due for all sales orders from the SalesLT.SalesOrderHeader table and the dbo.ufnGetCustomerInformation function.

Q.6: Retrieve customer address information

Retrieve the customer ID, first name, last name, address line 1 and city for all customers from the SalesLT.Address and SalesLT.CustomerAddress tables, and the dbo.ufnGetCustomerInformation function.