
Extreme Mountain Bike (EMB) has asked you to analyze the sales data of 2014. EMB has provided you the following information with this project:

1. Employee (EmployeeID, EmployeeFirstName, EmployeeLastName, DepartmentID, EmployeeAddress, Gender, EmployeeBirthDate, Salary, RegionID)
2. Product (ProductID, ProductName, Cost, WholeSalePrice, MSRP)
3. Customer (CustomerID, CustomerFirstName, CustomerLastName, CustomerAddress, CustomerAge, CustomerExperience)
4. Department (DepartmentID, DepartmentName)
5. Region (RegionID, RegionName)
6. SalesOrder (OrderID, PODate, ProductID, CustomerID, CustomerPO, EmployeeID, Quantity, UnitPrice)

Create a database named **Bikes** in SQL server containing the above tables and relationships. Use **real** datatype for fields with decimal values. Use the following bulk insert command to insert the data in the tables.

```
BULK
INSERT TableName_t
FROM 'Path\TableName.txt'
WITH
(
  FIELDTERMINATOR = ',',
  ROWTERMINATOR = '\n'
)
GO
```

Always check that you have inserted all the records. For example, SalesOrder table should have 97029 records.

Queries

EMB would like to get following information.

Query 1: Display the total sales in each region for products Extreme Mountain Bike, Extreme Plus Mountain Bike, and Extreme Ultra Mountain Bike. Total Sales is quantity times unit price for each transaction. You should get the following results

Results Messages		
	RegionName	Total Sales
1	East	5252025
2	North	16651375
3	South	16231850
4	West	4692925

Query 2: Display the ProductID, ProductName, and Cost of the products which are NOT purchased by the customer Dan Connor. You should get the following results

Results Messages			
	ProductID	ProductName	Cost
1	30000300	Extreme Ultra Mountain Bike	500
2	30000400	X Energy Wheel	90
3	30000600	Super Soft Front Air Fork	175

Query 3: Display the CustomerID, CustomerFirstName, CustomerLastName, CustomerAge of the customers whose age is above average and has created more than 1000 OrderIDs. Your query should also display the average age as 'AvgAge' of the customers. You should get the following results

Results Messages					
	CustomerID	CustomerFirstName	CustomerLastName	CustomerAge	AvgAge
1	1000015	Miles	Austin	28	26
2	1000001	Kenyon	Coleman	33	26
3	1000012	Lawrence	Vickers	29	26
4	1000002	Tony	Romo	32	26
5	1000003	Demick	Dockery	32	26

Query 4: Display the maximum sales by a customer in each quarter. Your output should be as follows

Results Messages				
	Max Sales Q1	Max Sales Q2	Max Sales Q3	Max Sales Q4
1	1903124.25	2228211.25	1899414.5	1273152

Query 5: Display the ProductName and 'Over Avg Profit' for the products whose total profit from all the transactions is above the average profit. The profit is given by Quantity * (UnitPrice – Cost). You should get the following results

Results		Messages
	ProductName	Over Avg Profit
1	Extreme Ultra Mountain Bike	1478250
2	Extreme Plus Mountain Bike	2492475
3	Extreme Mountain Bike	3552150

Grading

- Database creation with the diagram (5 points)
- Each query (1 point)

Deliverables:

You need to submit the database diagram, SQL file containing all the commands you have used to create the database and insert data and all the queries. The query file should have .sql extension so that it can be directly opened in SSMS. The due date of this project will be provided by the instructor.