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

| \blacksquare | Results 🗐 Me | ssages |
|----------------|--------------|-------------|
| | 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 |

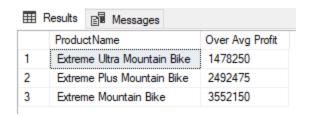
Query 3: Display the CustomerID, CustomerFirstName, CustomerLastName, CustomerAge of the customers whose age is above average and has created more than 1000 OrderIDs. Your query should also display the average age as 'AvgAge' of the customers. You should get the following results

| ₩ | Results 🗐 M | lessages | | | |
|---|-------------|-------------------|------------------|-------------|--------|
| | 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

| III | Results | B Mes | sages | | | | |
|------------|--------------|--------|-------|----------|-------------|-------|----------|
| | Max Sales Q1 | | Max S | Sales Q2 | Max Sales Q | 3 Max | Sales Q4 |
| 1 | 19031 | 124.25 | 2228 | 211.25 | 1899414.5 | 127 | 3152 |

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



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.