

ER Diagram

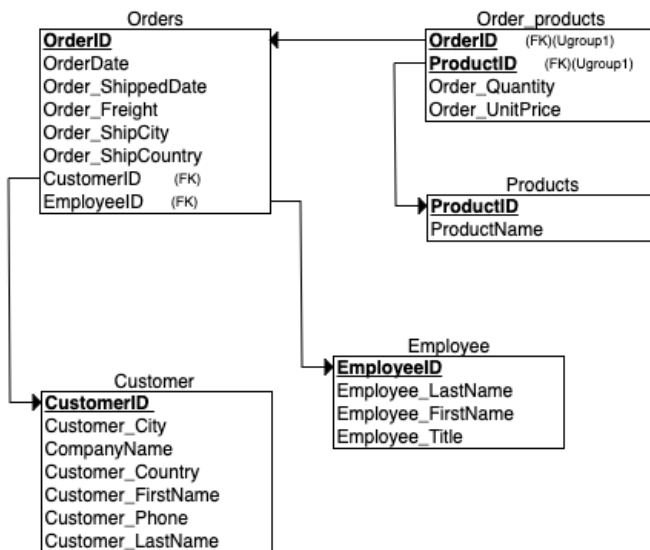
Team 2

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Conceptual Model



Logical Model



Physical model (SQL script)

Create database: create database abc charset=utf8;

```
CREATE TABLE Products
(
    ProductID INT NOT NULL,
    ProductName VARCHAR(100) NOT NULL,
    PRIMARY KEY (ProductID)
);

CREATE TABLE Employee
(
    EmployeeID INT NOT NULL,
    Employee_LastName VARCHAR(30) NOT NULL,
    Employee_FirstName VARCHAR(30) NOT NULL,
    Employee_Title VARCHAR(50) NOT NULL,

    PRIMARY KEY (EmployeeID)
);

CREATE TABLE Customer
(
    CustomerID_ INT NOT NULL,
    CompanyName VARCHAR(50) NOT NULL,
    Customer_FirstName VARCHAR(30) NOT NULL,
    Customer_LastName VARCHAR(30) NOT NULL,
    Customer_City VARCHAR(30) NOT NULL,
    Customer_Country VARCHAR(30) NOT NULL,
    Customer_Phone VARCHAR(20) NOT NULL,
    PRIMARY KEY (CustomerID_)
);

CREATE TABLE Orders
(
    OrderID INT NOT NULL,
    OrderDate DATE NOT NULL,
    Order_ShippedDate DATE NOT NULL,
    Order_Freight FLOAT NOT NULL,
    Order_ShipCity VARCHAR(30) NOT NULL,
    Order_ShipCountry VARCHAR(30) NOT NULL,

    EmployeeID INT NOT NULL,
    CustomerID_ INT NOT NULL,
    PRIMARY KEY (OrderID),
    FOREIGN KEY (CustomerID_) REFERENCES Customer_(CustomerID_),
    FOREIGN KEY (EmployeeID) REFERENCES Employee(EmployeeID)
);

CREATE TABLE Order_products
(
    OrderID INT NOT NULL,
    ProductID INT NOT NULL,
    Order_UnitPrice FLOAT NOT NULL,
    Order_Quantity INT NOT NULL,
```

```
PRIMARY KEY (OrderID, ProductID),  
FOREIGN KEY (OrderID) REFERENCES Orders(OrderID),  
FOREIGN KEY (ProductID) REFERENCES Products(ProductID),  
UNIQUE (OrderID, ProductID)  
);
```

Load Data from s3 to RDS:

```
LOAD DATA From s3 's3://abcretail/Customers.csv'  
INTO TABLE Customer_  
Fields TERMINATED BY ','  
ENCLOSED BY '"'  
LINES TERMINATED BY '\r\n'  
IGNORE 1 LINES;
```

```
LOAD DATA From s3 's3://abcretail/Employee.csv'  
INTO TABLE Employee  
Fields TERMINATED BY ','  
ENCLOSED BY '"'  
LINES TERMINATED BY '\r\n'  
IGNORE 1 LINES;
```

```
LOAD DATA From s3 's3://abcretail/Products.csv'  
INTO TABLE Products  
Fields TERMINATED BY ','  
ENCLOSED BY '"'  
LINES TERMINATED BY '\r\n'  
IGNORE 1 LINES;
```

```
LOAD DATA From s3 's3://abcretail/orders.csv'  
INTO TABLE Orders  
Fields TERMINATED BY ','  
ENCLOSED BY '"'  
LINES TERMINATED BY '\r\n'  
IGNORE 1 LINES;
```

```
LOAD DATA From s3 's3://abcretail/order_product.csv'  
INTO TABLE Order_products  
Fields TERMINATED BY ','  
ENCLOSED BY '"'  
LINES TERMINATED BY '\r\n'  
IGNORE 1 LINES;
```

First 10 rows for each table:

Customer table:

CustomerID	CompanyName	Customer_FirstName	Customer_LastName	Customer_City	Customer_Country	Customer_Phone
1	Vins et alcools Chevalier	Paul	Henriot	Reims	France	26.47.15.10
2	Toms Spezialit�tten	Karin	Josephs	M�nster	Germany	0251-031259
3	Hanari Carnes	Mario	Pontes	Rio de Janeiro	Brazil	(21) 555-0091
4	Victuailles en stock	Mary	Saveley	Lyon	France	78.32.54.86
5	Supr�mes d�licies	Pascale	Cartrain	Charleroi	Belgium	(071) 23 67 22 20
6	Chop-suey Chinese	Yang	Wang	Bern	Switzerland	0452-076545
7	Richter Supermarkt	Michael	Holz	Gen�ve	Switzerland	0897-034214
8	Wellington Importadora	Paula	Parente	Resende	Brazil	(14) 555-8122
9	HILARI�N-Abastos	Carlos	Hern�ndez	San Crist�bal	Venezuela	(5) 555-1340
10	Ernst Handel	Roland	Mendel	Graz	Austria	7675-3425
11	Centro comercial Moctezuma	Francisco	Chang	M�xico D.F.	Mexico	(5) 555-3392
12	Ottilies K�seladen	Henriette	Pfalzheim	K�ln	Germany	0221-0644327
13	Que Del�cia	Bernardo	Batista	Rio de Janeiro	Brazil	(21) 555-4252
14	Rattlesnake Canyon Grocery	Paula	Wilson	Albuquerque	USA	(505) 555-5939
15	Folk och f� HB	Maria	Larsson	Br�cke	Sweden	0695-34 67 21
16	Blondel p�re et fils	Fr�d�rique	Citeaux	Strasbourg	France	88.60.15.31
17	Martian Herkku	Pirkko	Koskitalo	Oulu	Finland	981-443655
18	Frankenversand	Peter	Franken	M�nchen	Germany	089-0877310
19	GROSELLA-Restaurante	Manuel	Pereira	Caracas	Venezuela	(2) 283-2951
20	White Clover Markets	Karl	Jablonski	Seattle	USA	(206) 555-4112
21	Split Rail Beer & Ale	Art	Braunschweiler	Lander	USA	(307) 555-4680
22	QUICK-Stop	Horst	Kloss	Cunewalde	Germany	0372-035188
23	Magazzini Alimentari Riuniti	Giovanni	Rovelli	Bergamo	Italy	035-640230
24	Tortuga Restaurante	Miguel	Angel	M�xico D.F.	Mexico	(5) 555-2933
25	Morgenstern Gesundkost	Alexander	Feuer	Leipzig	Germany	0342-023176
26	Berglunds snabbk�p	Christina	Berglund	Lule�	Sweden	0921-12 34 65
27	Lehmanns Marktstand	Renate	Messner	Frankfurt a.M.	Germany	069-0245984
28	Romero y tomillo	Alejandra	Camino	Madrid	Spain	(91) 745 6200
29	LILA-Supermercado	Carlos	Gonz�lez	Barquisimeto	Venezuela	(9) 331-6954
30	Ricardo Adocicados	Janete	Lineira	Rio de Janeiro	Brazil	(21) 555-3412
31	Reggiani Caseifici	Maurizio	Moroni	Reggio Emilia	Italy	0522-556721
32	B's Beverages	Victoria	Ashworth	London	UK	(171) 555-1212
33	Com�rcio Mineiro	Pedro	Afonso	S�o Paulo	Brazil	(11) 555-7647
34	Trad�o Hipermercados	Anabela	Domingues	S�o Paulo	Brazil	(11) 555-2167
35	Hungry Owl All-Night Grocers	Patricia	McKenna	Cork	Ireland	2967 542
36	Die Wandernde Kuh	Rita	M�ller	Stuttgart	Germany	0711-020361
37	Godos Cocina T�pica	Jos�	Pedro	Sevilla	Spain	(95) 555 82 82

Employee table:

```
MySQL [abc]> select * from Employee;
```

EmployeeID	Employee_LastName	Employee_FirstName	Employee_Title
1	Buchanan	Steven	Sales Manager
2	Suyama	Michael	Sales Representative
3	Peacock	Margaret	Sales Representative
4	Leverling	Janet	Sales Representative
5	Dodsworth	Anne	Sales Representative
6	Davolio	Nancy	Sales Representative
7	Callahan	Laura	Inside Sales Coordinator
8	Fuller	Andrew	Vice President, Sales
9	King	Robert	Sales Representative

Products table:

```
MySQL [abc]> select * from Products;
```

ProductID	ProductName
1	Queso Cabrales
2	Singaporean Hokkien Fried Mee
3	Mozzarella di Giovanni
4	Tofu
5	Manjimup Dried Apples
6	Jack's New England Clam Chowder
7	Louisiana Fiery Hot Pepper Sauce
8	Gustaf's Kn�ckebr�d
9	Ravioli Angelo
10	Sir Rodney's Marmalade
11	Geitost
12	Camembert Pierrot
13	Gorgonzola Telino
14	Chartreuse verte
15	Maxilaku
16	Guaran� Fant�stica
17	Pat� chinois
18	Longlife Tofu
19	Chang
20	Pavlova
21	Inlagd Sill
22	Raclette Courdavault
23	Perth Pasties
24	Original Frankfurter gr�ne So�e
25	Schoggi Schokolade
26	Chef Anton's Gumbo Mix

Orders table:

```
ERROR 1054 (42S22): Unknown column 'id' in 'where clause'
MySQL [abc]> select * from Orders where Orderid<20;
```

OrderID	OrderDate	Order_ShippedDate	Order_Freight	Order_ShipCity	Order_ShipCountry	EmployeeID	CustomerID_
1	0000-00-00	0000-00-00	32.38	Reims	France	1	1
2	0000-00-00	0000-00-00	11.61	Münster	Germany	2	2
3	0000-00-00	0000-00-00	65.83	Rio de Janeiro	Brazil	3	3
4	0000-00-00	0000-00-00	41.34	Lyon	France	4	4
5	0000-00-00	0000-00-00	51.3	Charleroi	Belgium	3	5
6	0000-00-00	0000-00-00	58.17	Rio de Janeiro	Brazil	4	3
7	0000-00-00	0000-00-00	22.98	Bern	Switzerland	1	6
8	0000-00-00	0000-00-00	148.33	Genève	Switzerland	5	7
9	0000-00-00	0000-00-00	13.97	Resende	Brazil	4	8
10	0000-00-00	0000-00-00	81.91	San Cristóbal	Venezuela	3	9
11	0000-00-00	0000-00-00	140.51	Graz	Austria	6	10
12	0000-00-00	0000-00-00	3.25	México D.F.	Mexico	3	11
13	0000-00-00	0000-00-00	55.09	Köln	Germany	3	12
14	0000-00-00	0000-00-00	3.05	Rio de Janeiro	Brazil	3	13
15	0000-00-00	0000-00-00	48.29	Albuquerque	USA	7	8
16	0000-00-00	0000-00-00	146.06	Graz	Austria	5	10
17	0000-00-00	0000-00-00	3.67	Brücke	Sweden	2	15
18	0000-00-00	0000-00-00	55.28	Strasbourg	France	8	16
19	0000-00-00	0000-00-00	25.73	Oulu	Finland	4	17

Order product table:

```
MySQL [abc]> select * from Order_products where Orderid<20;
```

OrderID	ProductID	Order_UnitPrice	Order_Quantity
1	1	14	12
1	2	9.8	10
1	3	34.8	5
2	4	18.6	9
2	5	42.4	40
3	5	42.4	35
3	6	7.7	10
3	7	16.8	15
4	7	16.8	20
4	8	16.8	6
4	9	15.6	15
5	10	64.8	40
5	11	2	25
5	12	27.2	40
6	13	10	20
6	14	14.4	42
6	15	16	40