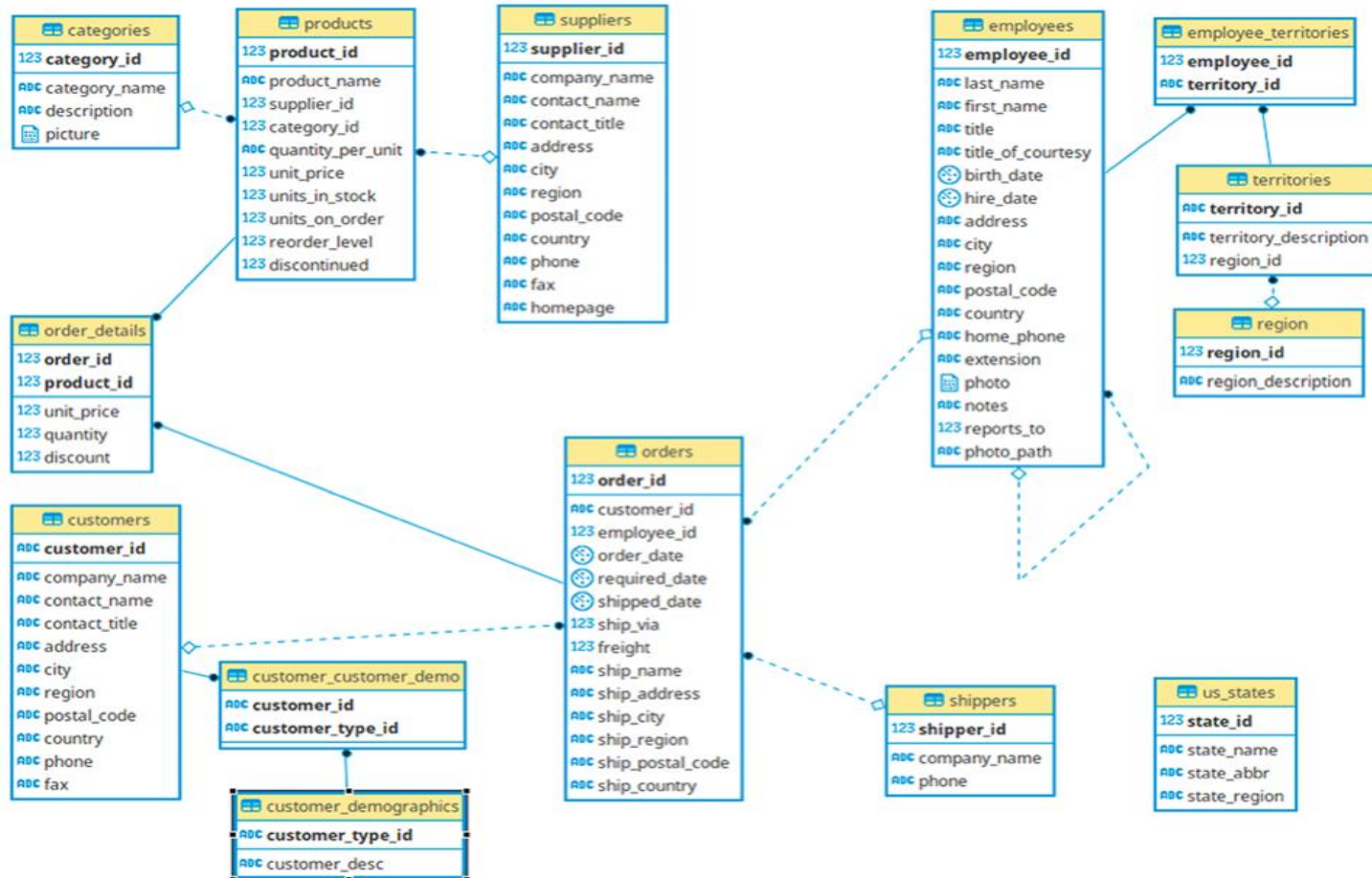


Business Case Solving

Tables to be Downloaded

1. Customers
2. Suppliers
3. Employees
4. Products
5. Shippers
6. Orders
7. Order_Details

Schema



Ques. Fetch the full name and hiring date of all Employees who work as Sales Representatives.

```
select concat(firstname, '
',lastname) as full_name,
hiredate
from
`Cochin_Traders.employees`
where title = 'Sales
Representative';
```

Row	full_name	hiredate
1	Michael Suyama	1993-10-17
2	Robert King	1994-01-02
3	Anne Dodsworth	1994-11-15
4	Nancy Davolio	1992-05-01
5	Janet Leverling	1992-04-01
6	Margaret Peacock	1993-05-03

Ques. Which of the products in our inventory need to be reordered?

Note: For now, just use the fields UnitsInStock and ReorderLevel, where UnitsInStock is less than the ReorderLevel, ignoring the fields UnitsOnOrder and Discontinued.

```
select  
unitsinstock, reorderlevel  
from  
`Cochin_Traders.products`  
where unitsinstock <  
reorderlevel;
```

Row	unitsinstock	reorderlevel
1	3	5
2	4	5
3	10	15
4	6	15
5	10	15
6	5	15
7	4	20
8	0	20
9	17	25
10	17	25

Ques. Find and display the details of customers who have placed more than 5 orders.

```
select *
from `Cochin_Traders.customers`
where customerid in (select
a.customerid
from `Cochin_Traders.customers`
a
join `Cochin_Traders.orders` b
using(customerid)
group by a.customerid
having count(b.orderid) > 5);
```

Row	row_no	customerid	companyname	contactname	contacttitle	address	city	region
1	4	AROUT	Around the Horn	Thomas Hardy	Sales Representative	120 Hanover Sq.	London	null
2	11	BSBEV	B's Beverages	Victoria Ashworth	Sales Representative	Fauntleroy Circus	London	null
3	19	EASTC	Eastern Connection	Ann Devon	Sales Agent	35 King George	London	null
4	72	SEVES	Seven Seas Imports	Hari Kumar	Sales Manager	90 Wadhurst Rd.	London	null
5	27	FRANS	Franchi S.p.A.	Paolo Accorti	Sales Representative	Via Monte Bianco 34	Torino	null
6	49	MAGAA	Magazzini Alimentari Riuniti	Giovanni Rovelli	Marketing Manager	Via Ludovico il Moro 22	Bergamo	null
7	66	REGGC	Reggiani Caseifici	Maurizio Moroni	Sales Associate	Strada Provinciale 124	Reggio Emilia	null
8	30	GODOS	Godos Cocina Típica	José Pedro Freyre	Sales Manager	C/ Romero, 33	Sevilla	null
9	7	BLONP	Blondesddsi père et fils	Frédérique Citeaux	Marketing Manager	24, place Kléber	Strasbourg	null
10	9	BONAP	Bon app'	Laurence Lebihan	Owner	12, rue des Bouchers	Marseille	null

Ques: An employee of ours (Margaret Peacock, EmployeeID 4) has the record of completing most orders. However, there are some customers who've never placed an order with her. Show such customers.

```
with cte as (select *
from `Cochin_Traders.orders`
where employeeid = 4)

select
*
from `Cochin_Traders.customers` c
left join cte o4
using(customerid)
where o4.customerid is null
```

Row	customerid	row_no	companyname	contactname	contacttitle	address	city	region
1	CONSH	16	Consolidated Holdings	Elizabeth Brown	Sales Representative	Berkeley Gardens 12 Brewery	London	null
2	NORTS	53	North/South	Simon Crowther	Sales Associate	South House 300 Queensbridge	London	null
3	SEVES	72	Seven Seas Imports	Hari Kumar	Sales Manager	90 Wadhurst Rd.	London	null
4	FISSA	22	FISSA Fabrica Inter. Salchichas...	Diego Roel	Accounting Manager	C/ Morazarzal, 86	Madrid	null
5	DUMON	18	Du monde entier	Janine Labrune	Owner	67, rue des Cinquante Otages	Nantes	null
6	FRANR	26	France restauration	Carine Schmitt	Marketing Manager	54, rue Royale	Nantes	null
7	PARIS	57	Paris spécialités	Marie Bertrand	Owner	265, boulevard Charonne	Paris	null
8	SPECD	74	Spécialités du monde	Dominique Perrier	Marketing Manager	25, rue Lauriston	Paris	null
9	VINET	85	Vins et alcools Chevalier	Paul Henriot	Accounting Manager	59 rue de l'Abbaye	Reims	null
10	PERIC	58	Pericles Comidas clásicas	Guillermo Fernández	Sales Representative	Calle Dr. Jorge Cash 321	México D.F.	null

Ques. Retrieve the top 5 best-selling products on the basis of the quantity ordered.

```
select * from
(select p.*, dense_rank() over(order
by o.quantity desc) as ranked
from (select *
from `Cochin_Traders.products`) p
join (select
productid, sum(quantity) as quantity
from `Cochin_Traders.orders_details`
group by productid) o
using(productid))
where ranked <= 5;
```

Row	productid ▾	productname ▾	supplierid ▾	categoryid ▾	quantityperunit ▾	unitprice ▾	unitsinstock ▾	unitsonorder ▾	reorderlevel ▾	discontinued ▾	ranked ▾
1	56	Gnocchi di nonna Alice	26	5	24 - 250 g pkgs.	38.0	21	10	30	0	
2	60	Camembert Pierrot	28	4	15 - 300 g rounds	34.0	19	0	0	0	
3	59	Raclette Courdavault	28	4	5 kg pkg.	55.0	79	0	0	0	
4	16	Pavlova	7	3	32 - 500 g boxes	17.45	29	0	10	0	
5	31	Gorgonzola Telino	14	4	12 - 100 g pkgs	12.5	0	70	20	0	

Ques. Analyze the monthly order count for the year 1997.

```
select extract(month from orderdate)
as Months, count(orderid) as
number_of_orders
from `Cochin_Traders.orders`
where extract(year from orderdate) =
1997
group by Months
order by Months ;
```

Row	Months	number_of_orders
1	1	33
2	2	29
3	3	30
4	4	31
5	5	32
6	6	30
7	7	33
8	8	33
9	9	37
10	10	38

Ques: Calculate the difference in sales revenue for each month compared to the previous month.

```
with cte as (select extract(year from b.orderdate)
as Years ,
extract(month from b.orderdate) as Months,
round(sum(a.unitprice * a.quantity),2) as
Sales_revenue
from `Cochin_Traders.orders_details` a
join `Cochin_Traders.orders` b
using(orderid)
group by Years, Months
order by Years, Months)

select *,
Sales_revenue - lag(Sales_revenue) Over(order by
Years, Months) as Difference_of_sales_revenue
from cte
order by Years, Months
```

Row	Years	Months	Sales_revenue	Difference_of_sales
1	1996	7	30192.1	null
2	1996	8	26609.4	-3582.7
3	1996	9	27636.0	1026.6
4	1996	10	41203.6	13567.6
5	1996	11	49704.0	8500.4
6	1996	12	50953.4	1249.4
7	1997	1	66692.8	15739.4
8	1997	2	41207.2	-25485.6
9	1997	3	39979.9	-1227.3
10	1997	4	55699.39	15719.49

Ques: Calculate the percentage of total sales revenue for each product.

```
select *,
round((a.Total_Sales_revenue
/  sum(a.Total_Sales_revenue) over()) *
100,2) as percentage_of_total_sales
from (select a.productname,
round(sum(b.unitprice * b.quantity),2)
as Total_Sales_revenue
from `Cochin_Traders.products` a
join `Cochin_Traders.orders_details` b
using(productid)
group by productname) a
```

Row	productname	Total_Sales_revenue	percentage_of_total
1	Sasquatch Ale	6678.0	0.49
2	Spegesild	6144.0	0.45
3	Escargots de Bourgogne	6664.75	0.49
4	Schoggi Schokolade	15231.5	1.12
5	Gumbär Gummibärchen	21534.9	1.59
6	Gorgonzola Telino	16172.5	1.19
7	Louisiana Hot Spiced Okra	3519.0	0.26
8	Valkoinen suklaa	3510.0	0.26
9	Zaanse koeken	4358.6	0.32
10	Pavlova	18748.05	1.38