

YAMUNA DAY4 ASSIGNMENTS :

1.List all customers and the products they ordered with the order date.(Inner join)










```
select c.company_name as customers, o.order_id, p.product_name, od.quantity,  
o.order_date
```

```
from customers c
```

```
inner join orders o on c.customer_id = o.customer_id
```

```
inner join order_details od on o.order_id = od.order_id
```

```
inner join products p on od.product_id = p.product_id;
```

Data Output Messages Notifications					
         SQL					
	customers character varying (40)	order_id smallint	product_name character varying (40)	quantity smallint	order_date date
1	Vins et alcools Chevalier	10248	Queso Cabrales	12	1996-07-04
2	Vins et alcools Chevalier	10248	Singaporean Hokkien Fried Mee	10	1996-07-04
3	Vins et alcools Chevalier	10248	Mozzarella di Giovanni	5	1996-07-04
4	Toms Spezialitäten	10249	Tofu	9	1996-07-05
5	Toms Spezialitäten	10249	Manjimup Dried Apples	40	1996-07-05
6	Hanari Carnes	10250	Jack's New England Clam Chow...	10	1996-07-08
7	Hanari Carnes	10250	Manjimup Dried Apples	35	1996-07-08
8	Hanari Carnes	10250	Louisiana Fiery Hot Pepper Sauce	15	1996-07-08
9	Victuailles en stock	10251	Gustaf's Knäckebröd	6	1996-07-08
10	Victuailles en stock	10251	Ravioli Angelo	15	1996-07-08
11	Victuailles en stock	10251	Louisiana Fiery Hot Pepper Sauce	20	1996-07-08
12	Suprêmes délices	10252	Sir Rodney's Marmalade	40	1996-07-09

2. Show each order with customer, employee, shipper, and product info —

even if some parts are missing. (Left Join

select o.order_id, c.company_name as customer, concat(e.first_name, ' ', e.last_name) as employee_name, s.company_name as shipper, p.product_name from products p

left join order_details od on p.product_id = od.product_id

left join orders o on od.order_id = o.order_id

left join customers c on o.customer_id = c.customer_id

left join employees e on o.employee_id = e.employee_id

left join shippers s on o.ship_via = s.shipper_id;

```
select o.order_id,
c.company_name as customer,
concat(e.first_name, ' ', e.last_name) as employee_name,
s.company_name as shipper, p.product_name
from products p
left join order_details od on p.product_id = od.product_id
left join orders o on od.order_id = o.order_id
```

order_id	customer	employee_name	shipper	product_name
10248	Vins et alcools Chevalier	Steven Buchanan	Federal Shipping	Queso Cabrales
10248	Vins et alcools Chevalier	Steven Buchanan	Federal Shipping	Singaporean Hokkien Fried Mee
10248	Vins et alcools Chevalier	Steven Buchanan	Federal Shipping	Mozzarella di Giovanni
10249	Toms Spezialitäten	Michael Suyama	Speedy Express	Tofu
10249	Toms Spezialitäten	Michael Suyama	Speedy Express	Manjimup Dried Apples
10250	Hanari Carnes	Margaret Peacock	United Package	Jack's New England Clam Chow...
10250	Hanari Carnes	Margaret Peacock	United Package	Manjimup Dried Apples
10250	Hanari Carnes	Margaret Peacock	United Package	Louisiana Fiery Hot Pepper Sauce
10251	Victuailles en stock	Janet Leverling	Speedy Express	Gustaf's Knäckebröd
10251	Victuailles en stock	Janet Leverling	Speedy Express	Ravioli Angelo
10251	Victuailles en stock	Janet Leverling	Speedy Express	Louisiana Fiery Hot Pepper Sauce
10252	Suprêmes délices	Margaret Peacock	United Package	Sir Rodney's Marmalade
10252	Suprêmes délices	Margaret Peacock	United Package	Geitost
10252	Suprêmes délices	Margaret Peacock	United Package	Camembert Pierrot
10253	Hanari Carnes	Janet Leverling	United Package	Gorgonzola Telino
10253	Hanari Carnes	Janet Leverling	United Package	Chartreuse verte
10253	Hanari Carnes	Janet Leverling	United Package	Maxilaku
10254	Chop-suey Chinese	Steven Buchanan	United Package	Guaraná Fantástica
10254	Chop-suey Chinese	Steven Buchanan	United Package	Pâté chinois

```

select o.order_id, c.company_name as customer,
concat(e.first_name, ' ', e.last_name) as employee_name,
s.company_name as shipper, p.product_name
from orders o
left join customers c on o.customer_id = c.customer_id
left join employees e on o.employee_id = e.employee_id
left join shippers s on o.ship_via = s.shipper_id
left join order_details od on o.order_id = od.order_id
left join products p on od.product_id = p.product_id
order by 1 Nulls First;

```

Data Output Messages Notifications					
SQL					
	order_id smallint	customer character varying (40)	employee_name text	shipper character varying (40)	product_name character varying (40)
1	10248	Vins et alcools Chevalier	Steven Buchanan	Federal Shipping	Queso Cabrales
2	10248	Vins et alcools Chevalier	Steven Buchanan	Federal Shipping	Singaporean Hokkien Fried Mee
3	10248	Vins et alcools Chevalier	Steven Buchanan	Federal Shipping	Mozzarella di Giovanni
4	10249	Toms Spezialitäten	Michael Suyama	Speedy Express	Tofu
5	10249	Toms Spezialitäten	Michael Suyama	Speedy Express	Manjimup Dried Apples
6	10250	Hanari Carnes	Margaret Peacock	United Package	Jack's New England Clam Chow...
7	10250	Hanari Carnes	Margaret Peacock	United Package	Manjimup Dried Apples
8	10250	Hanari Carnes	Margaret Peacock	United Package	Louisiana Fiery Hot Pepper Sauce
9	10251	Victuailles en stock	Janet Leverling	Speedy Express	Gustaf's Knäckebröd
10	10251	Victuailles en stock	Janet Leverling	Speedy Express	Ravioli Angelo
11	10251	Victuailles en stock	Janet Leverling	Speedy Express	Louisiana Fiery Hot Pepper Sauce
12	10252	Suprêmes délices	Margaret Peacock	United Package	Sir Rodney's Marmalade
13	10252	Suprêmes délices	Margaret Peacock	United Package	Geitost
14	10252	Suprêmes délices	Margaret Peacock	United Package	Camembert Pierrot
15	10253	Hanari Carnes	Janet Leverling	United Package	Gorgonzola Telino
16	10253	Hanari Carnes	Janet Leverling	United Package	Chartreuse verte
17	10253	Hanari Carnes	Janet Leverling	United Package	Maxilaku
18	10254	Chop-suey Chinese	Steven Buchanan	United Package	Guaraná Fantástica
19	10254	Chop-suey Chinese	Steven Buchanan	United Package	Pâté chinois

3. Show all order details and products














(include all products even if they were never ordered). (Right Join

select od.order_id, od.product_id, od.quantity, p.product_name

from order_details od

right join products p on od.product_id = p.product_id

order by 1 Nulls First;

Data Output Messages Notifications				
         SQL				
	order_id smallint 	product_id smallint 	quantity smallint 	product_name character varying (40) 
1	10248	11	12	Queso Cabrales
2	10248	42	10	Singaporean Hokkien Fried Mee
3	10248	72	5	Mozzarella di Giovanni
4	10249	14	9	Tofu
5	10249	51	40	Manjimup Dried Apples
6	10250	41	10	Jack's New England Clam Chow...
7	10250	51	35	Manjimup Dried Apples
8	10250	65	15	Louisiana Fiery Hot Pepper Sauce
9	10251	22	6	Gustaf's Knäckebröd
10	10251	57	15	Ravioli Angelo
11	10251	65	20	Louisiana Fiery Hot Pepper Sauce
12	10252	20	40	Sir Rodney's Marmalade
13	10252	33	25	Geitost
14	10252	60	40	Camembert Pierrot
15	10253	31	20	Gorgonzola Telino
16	10253	39	42	Chartreuse verte
17	10253	49	40	Maxilaku
18	10254	24	15	Guaraná Fantástica
19	10254	55	21	Pâté chinois

4. List all product categories and their products

including categories that have no products,

and products that are not assigned to any category. (Outer Join)

select p.product_name, ca.category_name

from products p

full outer join categories ca on ca.category_id = p.category_id;

	product_name character varying (40)	category_name character varying (15)
1	Chai	Beverages
2	Chang	Beverages
3	Aniseed Syrup	Condiments
4	Chef Anton's Cajun Seasoning	Condiments
5	Chef Anton's Gumbo Mix	Condiments
6	Grandma's Boysenberry Spread	Condiments
7	Uncle Bob's Organic Dried Pears	Produce
8	Northwoods Cranberry Sauce	Condiments
9	Mishi Kobe Niku	Meat/Poultry
10	Ikura	Seafood
11	Queso Cabrales	Dairy Products
12	Queso Manchego La Pastora	Dairy Products
13	Konbu	Seafood
14	Tofu	Produce
15	Genen Shouyu	Condiments
16	Pavlova	Confections
17	Alice Mutton	Meat/Poultry
18	Carnarvon Tigers	Seafood
19	Teatime Chocolate Biscuits	Confections

5.Show all possible product and category combinations (Cross join

```
select p.product_name, ca.category_name
```

```
from products p
```

```
cross join categories ca;
```

	product_name character varying (40) 🔒	category_name character varying (15) 🔒
1	Chai	Beverages
2	Chai	Condiments
3	Chai	Confections
4	Chai	Dairy Products
5	Chai	Grains/Cereals
6	Chai	Meat/Poultry
7	Chai	Produce
8	Chai	Seafood
9	Chang	Beverages
10	Chang	Condiments
11	Chang	Confections
12	Chang	Dairy Products
13	Chang	Grains/Cereals
14	Chang	Meat/Poultry
15	Chang	Produce
16	Chang	Seafood
17	Aniseed Syrup	Beverages
18	Aniseed Syrup	Condiments
19	Aniseed Syrup	Confections

6.Show all employees who have the same manager(Self join)

```
select concat(E1.first_name, ' ', E1.last_name) as employee_name,  
concat(E2.first_name, ' ', E2.last_name) as manager_name  
from employees E1  
inner join employees E2 on E1.reports_to =E2.employee_id  
where E1.employee_id!= E2.employee_id;
```

	employee_name text	manager_name text
1	Nancy Davolio	Andrew Fuller
2	Janet Leverling	Andrew Fuller
3	Margaret Peacock	Andrew Fuller
4	Steven Buchanan	Andrew Fuller
5	Michael Suyama	Steven Buchanan
6	Robert King	Steven Buchanan
7	Laura Callahan	Andrew Fuller
8	Anne Dodsworth	Steven Buchanan

7.List all customers who have not selected a shipping method

```
select cu.customer_id, cu.company_name as Customers, o.order_id, o.ship_via
from customers cu
left join orders o on cu.customer_id = o.customer_id
where o.ship_via is Null;
```

	customer_id character varying (5) 🔒	customers character varying (40) 🔒	order_id smallint 🔒	ship_via smallint 🔒
1	PARIS	Paris spécialités	[null]	[null]
2	FISSA	FISSA Fabrica Inter. Salchichas S.A.	[null]	[null]