Database Management Systems - 18CSC303J

Database Management for Retail Application

Mini-Project Report

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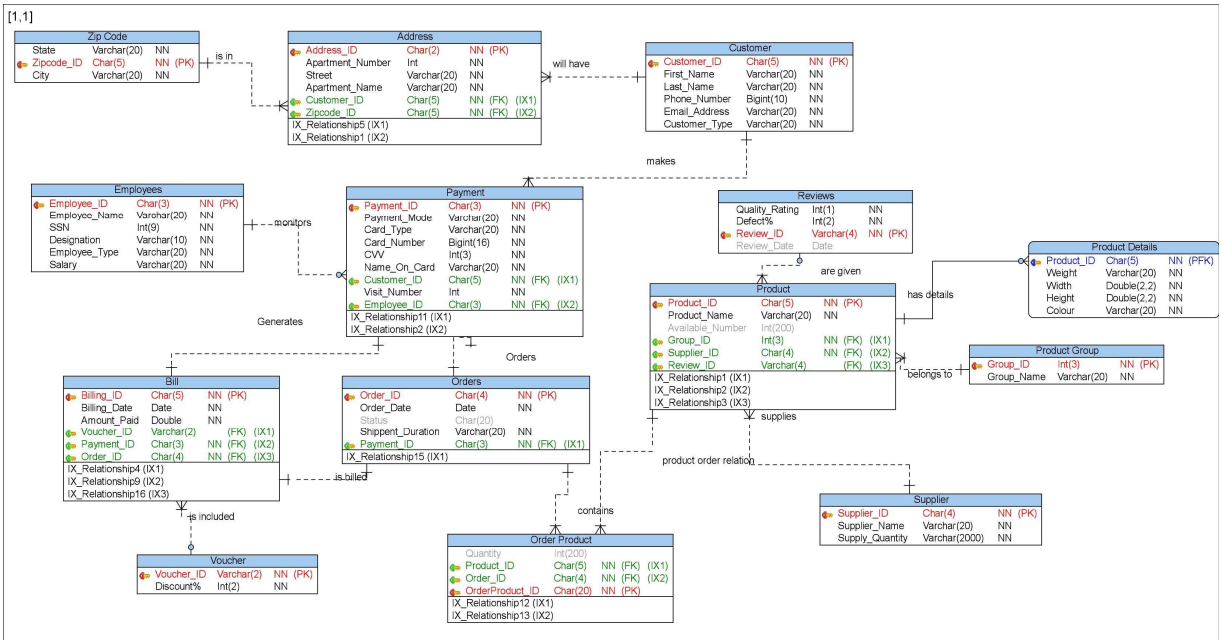
ER Diagram

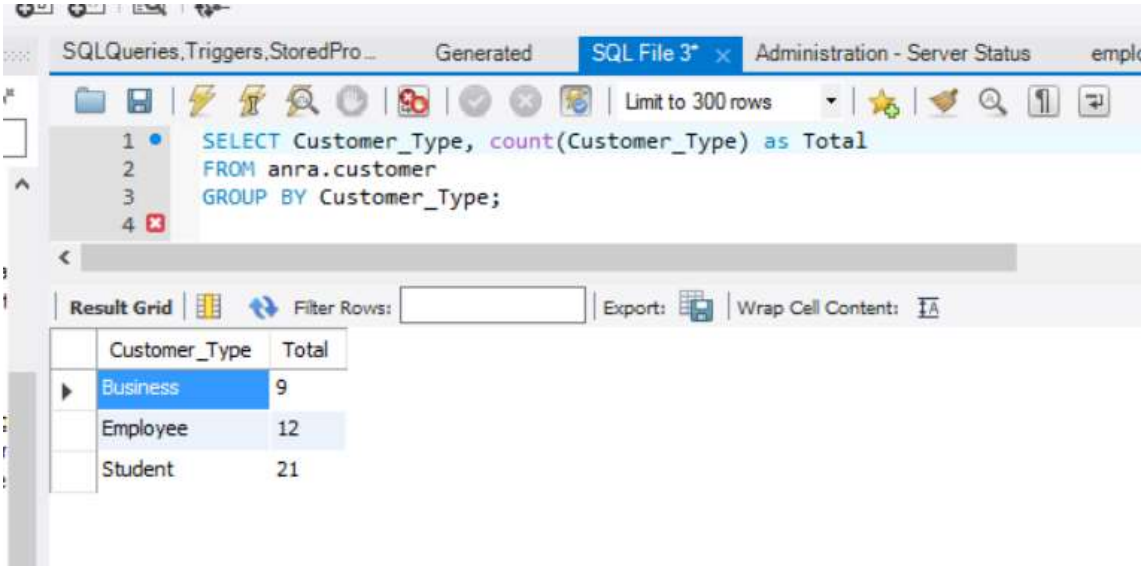


QUERIES

Query1

Find how many customers are there group by category

```
SELECT Customer_Type, count(Customer_Type) as Total
FROM anra.customer
GROUP BY Customer_Type;
```



Query2

Find 2 appartments whose name is emerald or their id is 11003

```
SELECT Address_ID, Appartment_Name, Zipcode_ID
 FROM   anra.address
 WHERE (Appartment_Name= 'Emerald' OR Zipcode_ID = '11003')
 ORDER BY Zipcode_ID DESC
 Limit 2;
```

Query3

Find the supplied product count and their group for each product

```
select anra.supplier.Supplier_ID,anra.supplier.Supplier_Name, Count(anra.product.Group_ID) AS
`Product Count`, anra.`product group`.Group_Name
from
   anra.supplier
      inner join
   anra.product
      on  anra.supplier.Supplier_ID=anra.product.Supplier_ID
      inner join
   anra.`product group`
      on anra.product.Group_ID=anra.`product group`.Group_ID

Group by Supplier_ID Asc
```

Query4

Total number of orders to be shipped immediate and is partially Shipped

```
 SELECT Order_ID, Order_Date,`Status`,count(Order_ID) as Total
 FROM   anra.orders
 WHERE (Shippent_Duration= 'Immediate' and`Status`='Partially Shipped')
 ORDER BY Order_ID DESC;
```

Query5

List of products by department which has high defect%

```
SELECT anra.reviews.Product_ID,anra.product.Product_Name,
MAX(anra.reviews.`Defect%`) As `Defect%`, anra.`product group`.Group_Name
from
   anra.reviews
      inner join
```

```
  anra.product
    on  anra.reviews.Product_ID=anra.product.Product_ID
    inner join
  anra.`product group`
    on anra.product.Group_ID=anra.`product group`.Group_ID
Group by `product group`.Group_ID
```

Query6

Total amount of revenue earned with respect to their purchasing modes

```
Select  count(Payment_Mode) As Total_Cutomers,
anra.payment.Payment_Mode,Sum(anra.bill.Amount_Paid)
As Total_Amount
from anra.payment
inner join
anra.bill
on anra.payment.Payment_ID=anra.bill.Payment_ID
group by Payment_Mode
```

Query7

Find The quantity of products available whose status is in progress and shipment duration is immediate

```
SELECT anra.product.Product_Name,anra.product.Available_Number,`order
product`.Quantity,orders.Order_Date, orders.`Status`,orders.Shippent_Duration
from
  anra.orders
    inner join
  anra.`order product`
    on  anra.orders.Order_ID=anra.`order product`.Order_ID
```

```
    inner join
    anra.product
    on  anra.`order product`.Product_ID=anra.product.Product_ID
  where
  orders.`Status`='In Progress' and orders.Shippent_Duration='Immediate';
```

Query8

Find the names and defect% order by defect%

```
SELECT Product_Name,`Defect%`
FROM anra.product
INNER JOIN anra.reviews
ON anra.reviews.Product_ID=anra.product.Product_ID
ORDER BY `Defect%` Desc;
```

Query9

Find Customers payment ID,mode, vocher applied and their visist number

```
SELECT anra.bill.Voucher_id, anra.payment.Payment_ID, anra.payment.Payment_Mode,
anra.payment.Visit_Number
FROM   anra.bill,anra.payment
WHERE anra.payment.Payment_ID=anra.bill.Payment_ID
AND anra.bill.Amount_Paid> 1000;
```

Query10

Find product and their respective colour

```
SELECT Product_Name, Colour
FROM anra.`product details`
INNER JOIN anra.product
ON anra.`product details`.Product_ID=anra.product.Product_ID order by colour
```

Query11

Find the product Names their respective groups

```
SELECT

Group_Name, Product_Name

FROM anra.`product group`

INNER JOIN anra.product

ON anra.`product group`.Group_ID=anra.product.Group_ID Order by Group_Name
```

Query12

Find Total salaries payed to each employee type

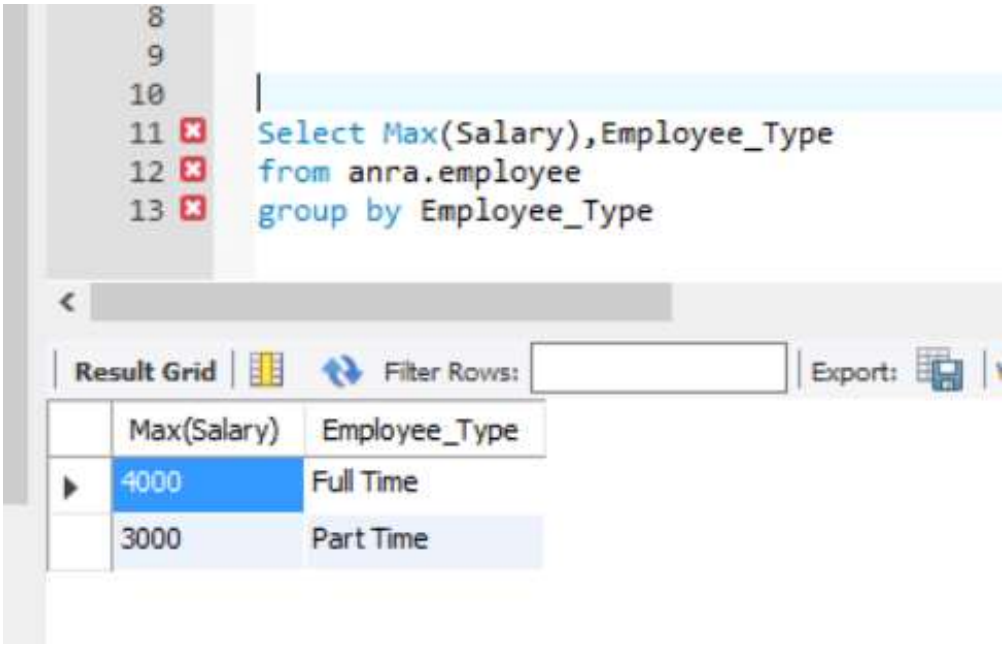
```
8
9
10
11  Select sum(Salary),Employee_Type
12  from anra.employee
13  group by Employee_Type
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

sum(Salary)	Employee_Type
31400	Full Time
19200	Part Time

Query13

Find Maximum salaries payed to each employee type



TRIGGERS

Trigger1

Find Customer name and updated time on customers table

create table

UpdateCustomerDetails

(Customer_id int, First_Name varchar(20), update_time Datetime)

delimiter \\

create trigger UpdateCustomerDetails_trigger

after update on customer

for each row

begin

declare new_date datetime;

set new_date=now();

```
insert into UpdateCustomerDetails(Customer_id,First_Name,update_time)
values(old.Customer_ID,old.First_Name, new_date);

end \\
```

when customers details are updated the trigger is set

```
update customer set Email_Address='naynaa@gmail.com'
where Customer_ID=10000
```

updates can be seen in the newly created table

```
select * from UpdateCustomerDetails
```

Trigger2

Find the newly changed colour for the product

Create table

```
AddedProductColour
(Product_id char(5), Colour varchar(20))


delimiter \\
create trigger AddedProductColour_trigger
after update on anra.`product details`
for each row
begin

insert into AddedProductColour(Product_id, Colour )
```

values(old.Product_id,Colour);

end \\

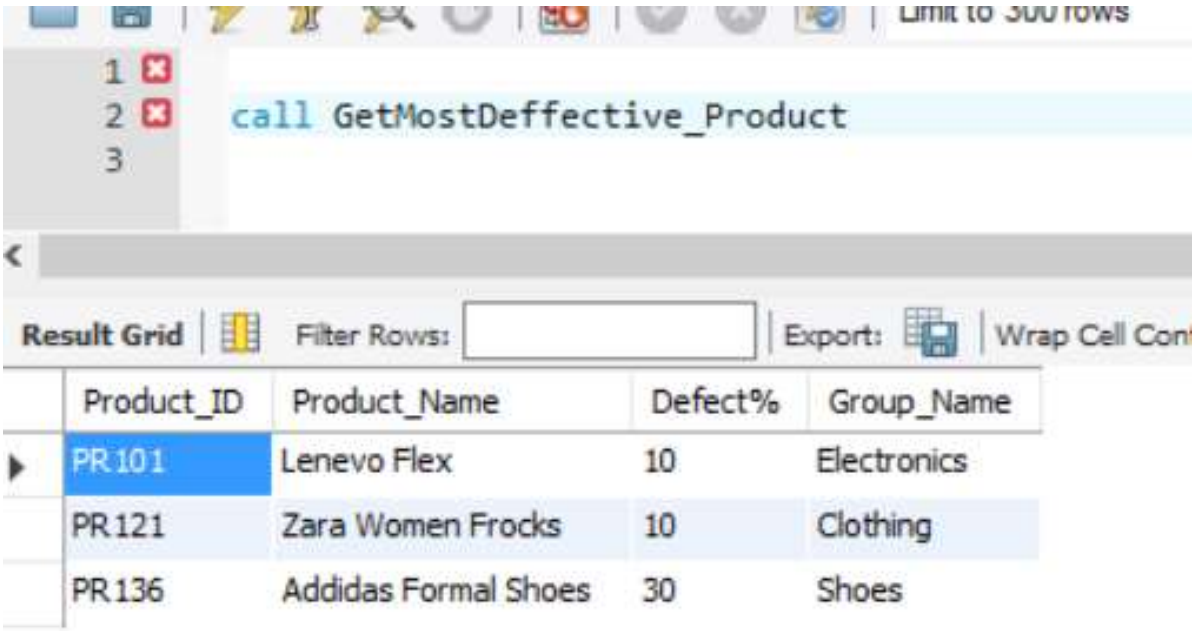
Stored_Procedures

1

Stored procedure to find most deffective product from each product group

call GetMostDeffective_Product()

```
delimiter//
Create Procedure GetMostDeffective_Product()
Begin
SELECT anra.reviews.Product_ID,anra.product.Product_Name,MAX(anra.reviews.`Defect%`) As
`Defect%`, anra.`product group`.Group_Name
from
   anra.reviews
      inner join
   anra.product
      on  anra.reviews.Product_ID=anra.product.Product_ID
      inner join
   anra.`product group`
      on anra.product.Group_ID=anra.`product group`.Group_ID
 Group by `product group`.Group_Name
 end//
```



2

Stored procedure for employee assesment

call GetEmployee_Assesment ()

```
delimiter//
Create Procedure GetEmployee_Assesment ()
Begin
Select count(anra.customer.Customer_ID) as Total_Cutomers
,anra.customer.Employee_ID,anra.employee.Designation,Salary
from  anra.customer
Inner Join
anra.employee
on
anra.employee.Employee_ID=anra.customer.Employee_ID
group by Employee_ID
```

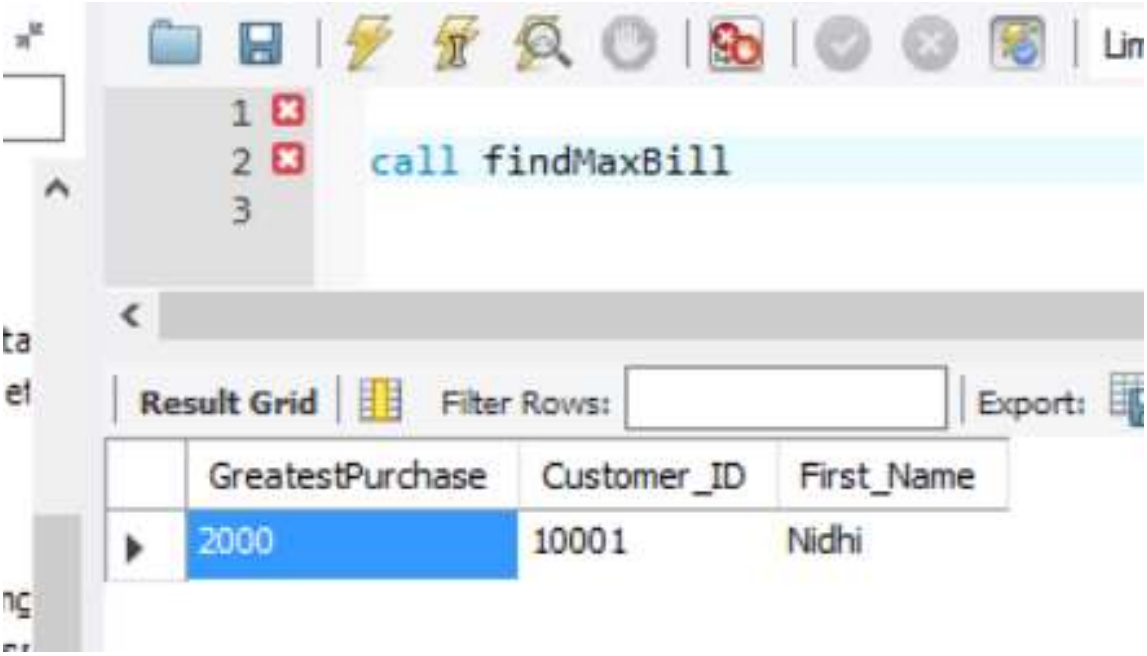
order by count(anra.customer.Customer_ID) ;

end//

3

Stored procedure to find customer details of highest Amount_Paid

call findMaxBill()



delimiter//

Create Procedure findMaxBill()

Begin

select Max(anra.bill.Amount_Paid) As GreatestPurchase,
anra.customer.Customer_ID,anra.customer.First_Name from anra.bill

inner join

anra.payment

on anra.payment.Payment_ID=anra.bill.Payment_ID

inner join

anra.Customer

on anra.payment.Customer_ID=anra.customer.Customer_ID;

end//

4

Call EmployeesMonitingCount()

CREATE DEFINER=`root`@`localhost` PROCEDURE `EmployeesMonitingCount`()

BEGIN

Select count(anra.customer.Customer_ID) as Total_Customers,
anra.customer.Employee_ID,anra.employee.Designation

From anra.customer

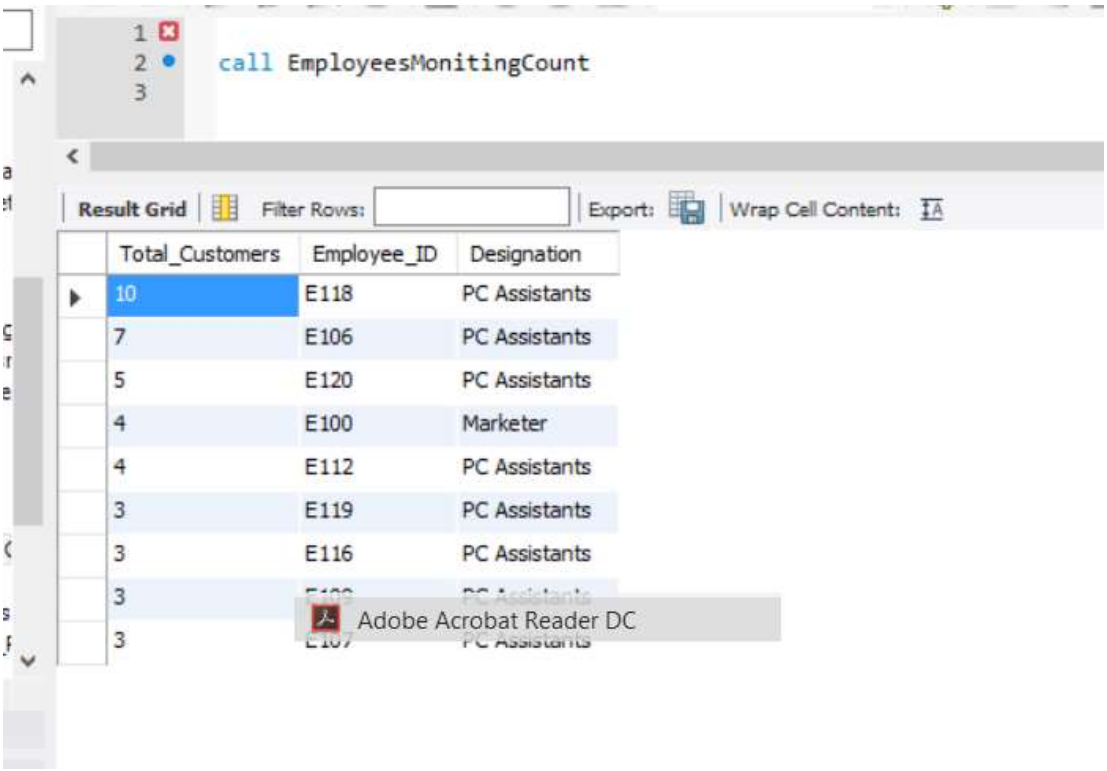
Inner Join

anra.employee

on anra.employee.Employee_ID=anra.customer.Employee_ID

group by anra.employee.Employee_ID

order by count(anra.customer.Customer_ID) desc;



END

Views

1

Student as customer views

```
create view StudentAsCustomer as ( select * from customer where Customer_Type = 'Student')
```

2

Product details with minimum defect% and high rating

```
create view LeastDefectHighRating as
(select product.Product_Name, min(reviews.`Defect%`), max(reviews.Quality_Rating)
from anra.reviews
inner join
anra.product
on anra.reviews.Product_ID=anra.product.Product_ID)
```

3

Products and the colours available

```
create view ProductandAvailableColours as
(SELECT Product_Name, Colour
FROM anra.`product details`
INNER JOIN anra.product
ON anra.`product details`.Product_ID=anra.product.Product_ID order by colour)
```

4

Distinct employee departments whose salary is greater than 1200 limit to 4

create view DistinctEmployeeDepartments as

(Select DISTINCT
anra.employee.Designation,anra.employee.Employee_Name,anra.employee.Department

From anra.employee

Where anra.employee.salary>1200 limit 4)

5

Create view TotalAmount as Total amount of revenue earned with respect to their purchasing modes

create view as totalamount

(Select count(Payment_Mode) As Total_Cutomers,
anra.payment.Payment_Mode,Sum(anra.bill.Amount_Paid)

As Total_Amount

from anra.payment

inner join

anra.bill

on anra.payment.Payment_ID=anra.bill.Payment_ID

group by Payment_Mode)

6

Create view to know the employee designation and id and total number of customers monitored by each employee in descending order

create view NumberOfCustomersMonitered as

(Select count(anra.customer.Customer_ID) as Total_Customers,
anra.customer.Emploee_ID,anra.emploee.Designation

From anra.customer

Inner Join

anra.employee

on anra.employee.Employee_ID=anra.customer.Employee_ID

group by Employee_ID

order by count(anra.customers.Customer_ID) desc)

```
Select count(anra.customer.Customer_ID) as Total_Cutomers ,anra.customer.Employee_ID,anra.employee.Designation
from  anra.customer
Inner Join
anra.employee
on
anra.employee.Employee_ID=anra.customer.Employee_ID
group by Employee_ID
order by count(anra.customer.Customer_ID) desc
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Total_Cutomers	Employee_ID	Designation
10	E118	PC Assistants
7	E106	PC Assistants
5	E120	PC Assistants
4	E100	Marketer
4	E112	PC Assistants
3	E116	PC Assistants
3	E109	PC Assistants
3	E107	PC Assistants
3	E119	PC Assistants

7

View Salary of employee group by type and department

create view SalaryGroupbyType as

(Select Salary, Employee_Type,Department

From anra.employee

Group by Employee_Type,Department)

```
10
11  Select Salary,Employee_Type, Department
12  from anra.employee
13  group by Employee_Type,Department
```

Result Grid | Filter Rows: | Export: | Wrap Cell Con

Salary	Employee_Type	Department
1300	Full Time	Billing
4000	Full Time	Finance
3000	Full Time	Marketing
1000	Full Time	Sales
1300	Part Time	Billing
3000	Part Time	Sales

8

Find The quantity of products available whose status is in progress and shipment duration is immediate

create view OrderStatusandAvailableQuantity as

(SELECT anra.product.Product_Name,anra.product.Available_Number,`order product`.Quantity,orders.Order_Date, orders.`Status`,orders.Shippent_Duration

from

anra.orders

inner join

anra.`order product`

on anra.orders.Order_ID=anra.`order product`.Order_ID

inner join

anra.product

on anra.`order product`.Product_ID=anra.product.Product_ID

where

orders.`Status`='In Progress' and orders.Shippent_Duration='Immediate')