

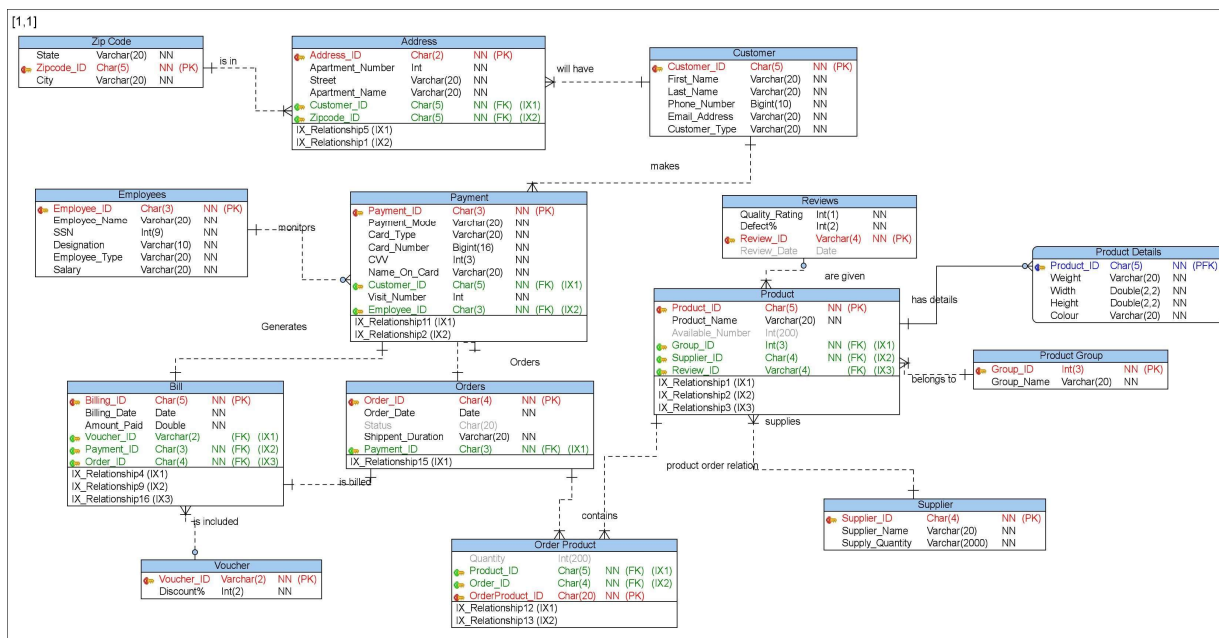
Database Management for Retail Application

Mini-Project Report

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ER Diagram



QUERIES

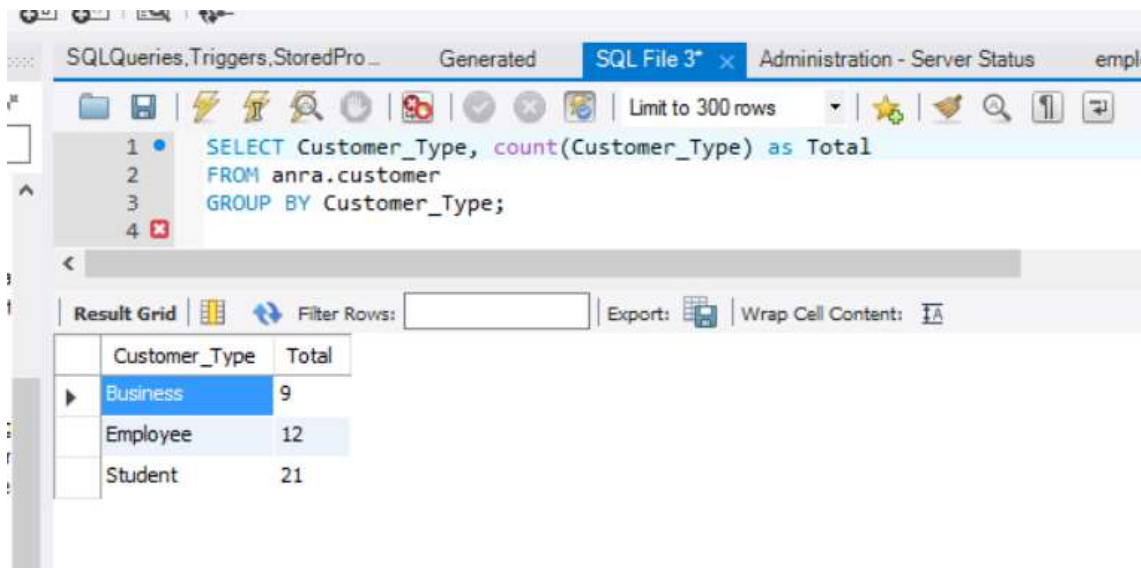
Query1

Find how many customers are there group by category

```
SELECT Customer_Type, count(Customer_Type) as Total
```

```
FROM anra.customer
```

```
GROUP BY Customer_Type;
```



The screenshot shows a SQL query editor with the following query:

```
1 SELECT Customer_Type, count(Customer_Type) as Total
2 FROM anra.customer
3 GROUP BY Customer_Type;
4
```

The results are displayed in a table with the following data:

Customer_Type	Total
Business	9
Employee	12
Student	21

Query2

Find 2 apartments 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

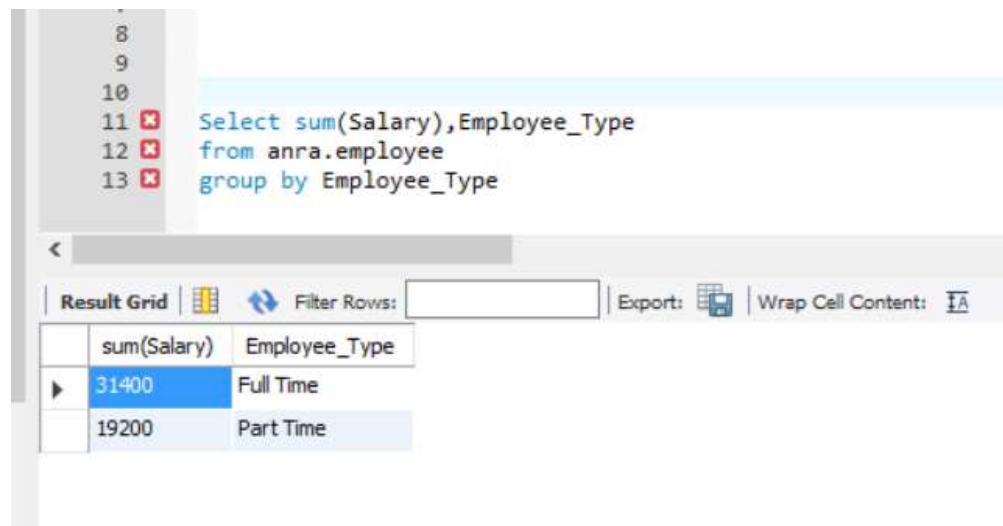
FROM anra.`product group`

INNER JOIN anra.product

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

Query12

Find Total salaries paid to each employee type



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

sum(Salary)	Employee_Type
31400	Full Time
19200	Part Time

Query13

Find Maximum salaries paid to each employee type

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

<	Result Grid	Filter Rows:	Export:
	Max(Salary)	Employee_Type	
▶	4000	Full Time	
	3000	Part Time	

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 defective 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//
```

Limit to 500 rows

1

2 `call GetMostDeffective_Product`

3

<

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

	Product_ID	Product_Name	Defect%	Group_Name
▶	PR101	Lenevo Flex	10	Electronics
	PR121	Zara Women Frocks	10	Clothing
	PR136	Addidas Formal Shoes	30	Shoes

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

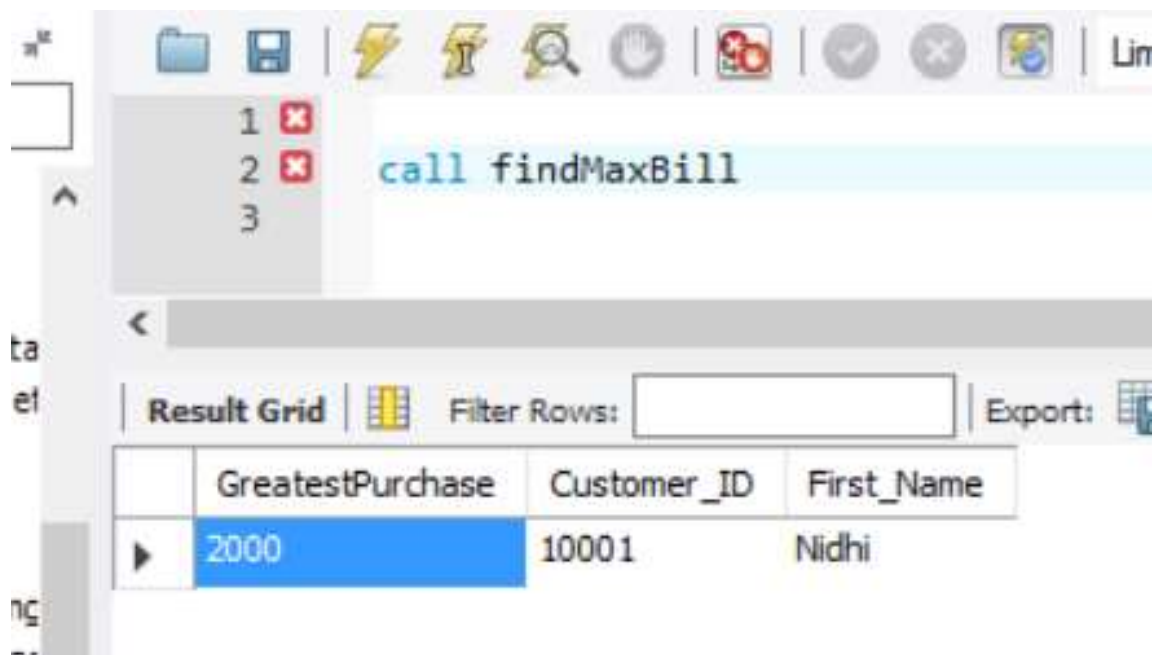
group by Employee_ID

```
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
```

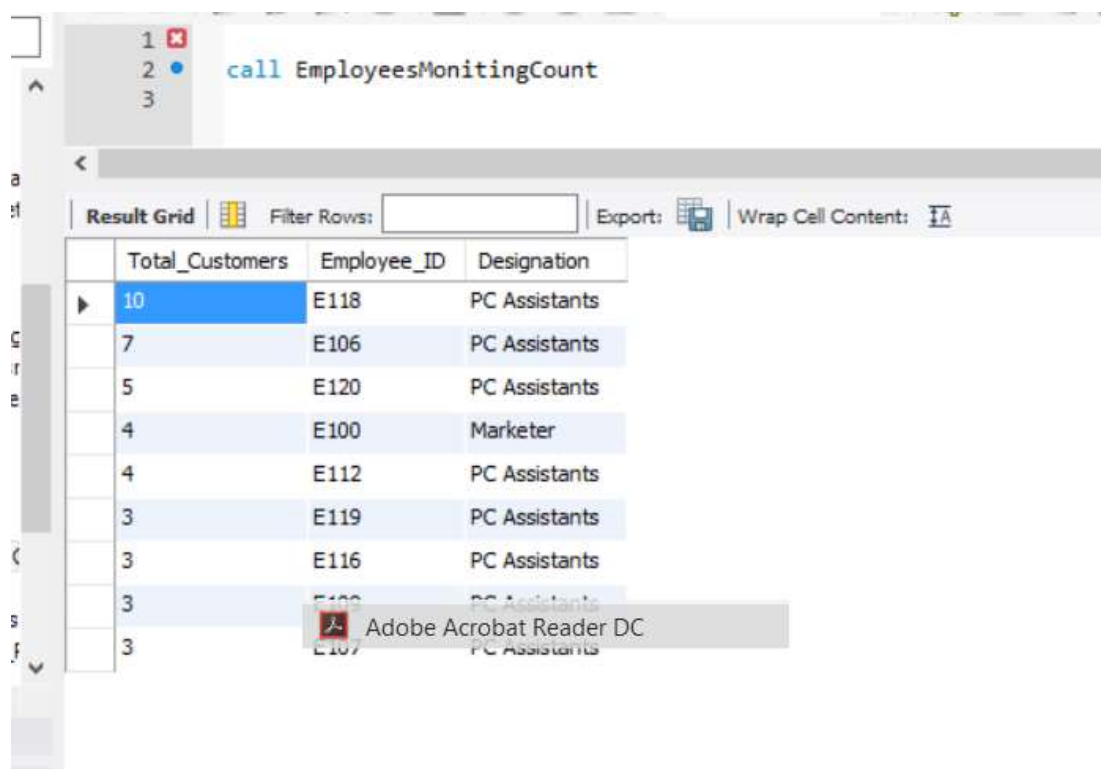
```
Inner Join
```

```
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;
```



The screenshot shows a database management tool interface. At the top, a SQL query is entered in a text area: `call EmployeesMonitingCount`. Below the query, a "Result Grid" displays the output of the query. The grid has four columns: "Total_Customers", "Employee_ID", and "Designation". The data is sorted by "Total_Customers" in descending order. The first row is highlighted in blue. An "Adobe Acrobat Reader DC" window is open over the bottom part of the result grid.

Total_Customers	Employee_ID	Designation
10	E118	PC Assistants
7	E106	PC Assistants
5	E120	PC Assistants
4	E100	Marketer
4	E112	PC Assistants
3	E119	PC Assistants
3	E116	PC Assistants
3	E108	PC Assistants
3	E107	PC Assistants

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.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.customers.Customer_ID) desc)

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

<	Result Grid			Filter Rows:	<input type="text"/>	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')

The screenshot shows a database query editor interface. The top section displays a SQL query with line numbers 1 through 12. The query is as follows:

```
1 SELECT * FROM anra.orders;  
2 SELECT anra.product.Product_Name, anra.product.Available_Number, `order product`.Quantity, orders.Order_Date, orders.`Status`, orders.Shippent_Dura  
3 from  
4 anra.orders  
5 inner join  
6 anra.`order product`  
7 on anra.orders.Order_ID=anra.`order product`.Order_ID  
8 inner join  
9 anra.product  
10 on anra.`order product`.Product_ID=anra.product.Product_ID  
11 where  
12 orders.`Status`='In Progress' and orders.Shippent_Duration='Immediate';
```

Below the query editor, there is a "Result Grid" section. It includes a "Filter Rows:" input field, an "Export:" button, and a "Wrap Cell Content:" dropdown menu. The grid itself contains 7 columns: Product_Name, Available_Number, Quantity, Order_Date, Status, and Shippent_Duration. The first row is highlighted in blue and shows "Lenevo Flex", 25, 2, 2/19/2016, In Progress, and Immediate. The subsequent rows show "Lenevo Flex", "Mac Book Pro", "Mac Mini", and "Mac Air" with their respective values. The grid is labeled "Result 4" at the bottom left. On the right side, there is a vertical toolbar with icons for "Result Grid", "Form Editor", "Field Types", and "Query Tools". At the bottom right, there is a "Read Only" status indicator.

Product_Name	Available_Number	Quantity	Order_Date	Status	Shippent_Duration
Lenevo Flex	25	2	2/19/2016	In Progress	Immediate
Lenevo Flex	25	1	7/25/2016	In Progress	Immediate
Lenevo Flex	25	4	7/17/2016	In Progress	Immediate
Mac Book Pro	27	1	4/29/2016	In Progress	Immediate
Mac Mini	29	1	8/16/2016	In Progress	Immediate
Mac Air	31	1	2/7/2016	In Progress	Immediate
Mac Air	31	4	12/29/2016	In Progress	Immediate
Mac Air	31	3	2/5/2016	In Progress	Immediate
Mac Air	31	5	11/29/2016	In Progress	Immediate
Mac Air	31	6	12/29/2016	In Progress	Immediate