DAY 4

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DATE: 10-07-2025

Tasks:

1. Find the nth maximum salary from the employee table using correlated subquery.

2.Create a function which takes 2 numbers as input and return the maximum value.

3.Write a query to display account number and total amount deposited by each account holder (Including the opening balance). Give the total amount deposited an alias name of Deposit_Amount. Display the records in sorted order based on account number.- Use the tables created in the previous handson.

4.Create table branch_master with columns
   branch_id VARCHAR(6) -primary key
   branch_name VARCHAR(30)
   branch_city VARCHAR(30)
and Insert values into branch_master .

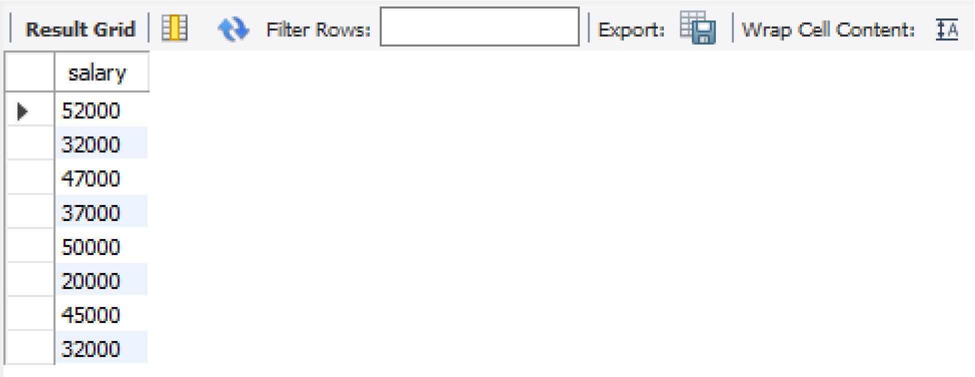
5. Add column branch_id in accounts_master and refer as foreign key to branch_id of branch_master.

Solution:

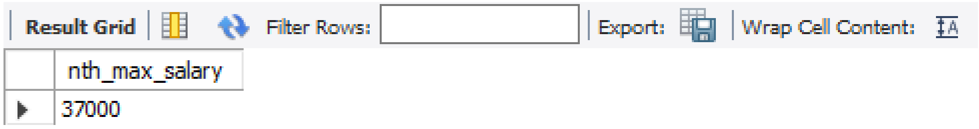
1.Query:

```
select salary from employee;

SELECT DISTINCT e1.salary as nth_max_salary
FROM employee e1
WHERE (SELECT COUNT(DISTINCT e2.salary)
      FROM employee e2
      WHERE e2.salary > e1.salary) = 4;
```

Output:



salary
52000
32000
47000
37000
50000
20000
45000
32000

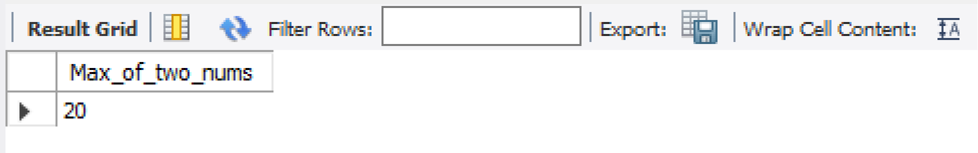


nth_max_salary
37000

2.Query:

```
delimiter //
create function max_value(n1 int, n2 int)
returns int
deterministic
begin
  declare res int;
  if(n1 > n2) then
        set res = n1;
  else
        set res = n2;
  end if;
  return res;
end //
delimiter ;

select max_value(10,20) Max_of_two_nums;
```

Output:

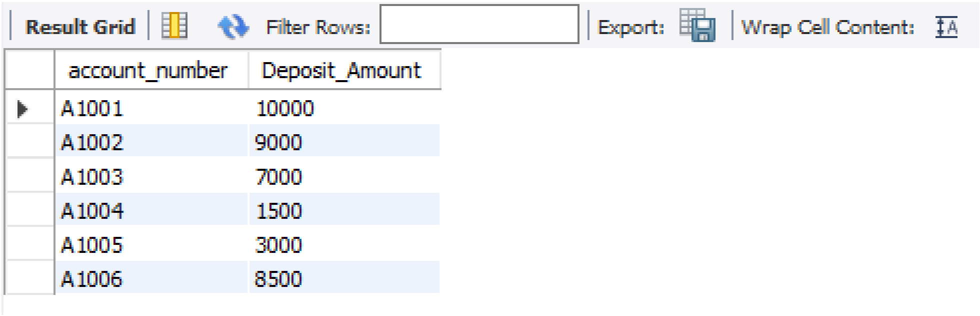


Max_of_two_nums
20

3.Query:

```
select a.account_number, coalesce(sum(t.transaction_amount), 0) + a.opening_balance
Deposit_Amount
from account a left join transaction_details t on a.account_number = t.account_number
and t.transaction_type ='deposit' group by a.account_number, a.opening_balance
order by a.account_number;
```

Output:

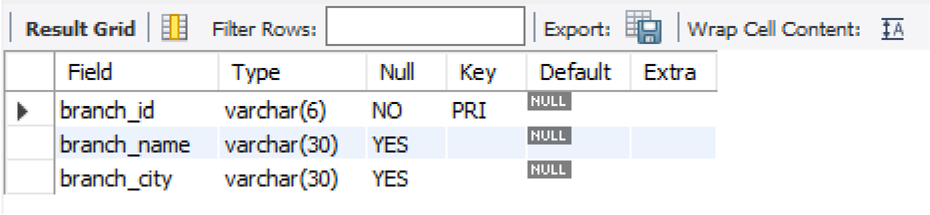


account_number	Deposit_Amount
A1001	10000
A1002	9000
A1003	7000
A1004	1500
A1005	3000
A1006	8500

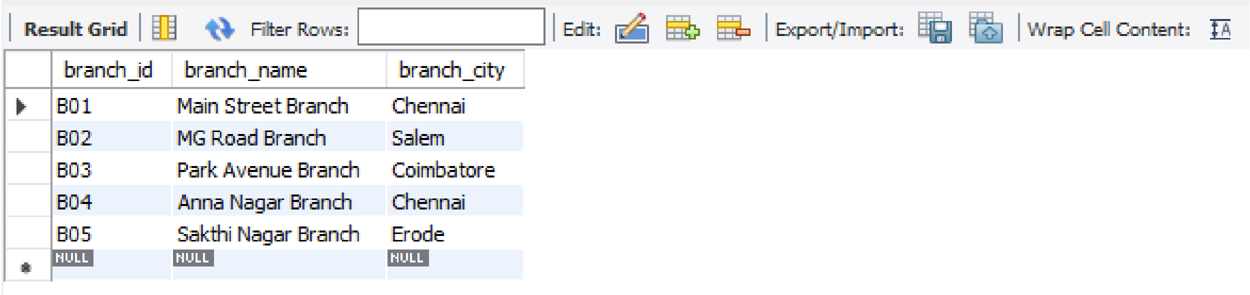
4.Query:

```
create table branch_master(branch_id varchar(6) primary key, branch_name varchar(30),
branch_city varchar(30));

desc branch_master;

insert into branch_master values
('B01', 'Main Street Branch', 'Chennai'),
('B02', 'MG Road Branch', 'Salem'),
('B03', 'Park Avenue Branch', 'Coimbatore'),
('B04', 'Anna Nagar Branch', 'Chennai'),
('B05', 'Sakthi Nagar Branch', 'Erode');

select * from branch_master;
```

Output:



Field	Type	Null	Key	Default	Extra
branch_id	varchar(6)	NO	PRI	NULL	
branch_name	varchar(30)	YES		NULL	
branch_city	varchar(30)	YES		NULL	

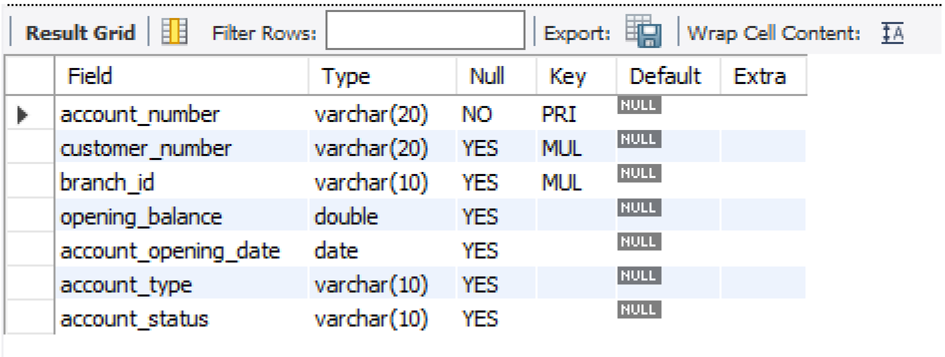


branch_id	branch_name	branch_city
B01	Main Street Branch	Chennai
B02	MG Road Branch	Salem
B03	Park Avenue Branch	Coimbatore
B04	Anna Nagar Branch	Chennai
B05	Sakthi Nagar Branch	Erode
NULL	NULL	NULL

5.Query:

```
alter table account add constraint fk foreign key(branch_id)
references branch_master(branch_id) on delete set null;

desc account;
```

Output:



Field	Type	Null	Key	Default	Extra
account_number	varchar(20)	NO	PRI	NULL	
customer_number	varchar(20)	YES	MUL	NULL	
branch_id	varchar(10)	YES	MUL	NULL	
opening_balance	double	YES		NULL	
account_opening_date	date	YES		NULL	
account_type	varchar(10)	YES		NULL	
account_status	varchar(10)	YES		NULL	