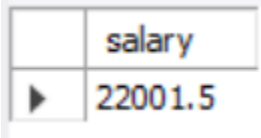
Step 1 : Find the nth maximum salary from the employee table using correlated subquery.

Query : select distinct e1.salary from employee e1
where (
	select count(distinct e2.salary) from employee e2 where e2.salary > e1.salary) = 0;
) = 2

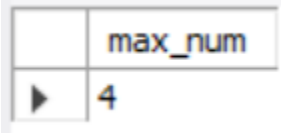


	salary
▶	22001.5

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

Query : delimiter //
create function findMax(num1 int, num2 int)
returns int
deterministic
begin
	if num1 > num2 then
		return num1;
	else
		return num2;
	end if;
end //
delimiter ;

select findMax(2,4);



	max_num
▶	4

Step 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.

Query : select td.account_number , sum(td.transaction_amount)+ac.opening_balance from account ac join transaction_details td where ac.account_number=td.account_number and td.transaction_type = 'deposit' group by ac.account_number ;

	account_number	Deposit_Amount
▶	1001	2500.5
	1003	1000.75

Step 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

Query : Create table branch_master (
branch_id VARCHAR(6) primary key,
branch_name VARCHAR(30),
branch_city VARCHAR(30));

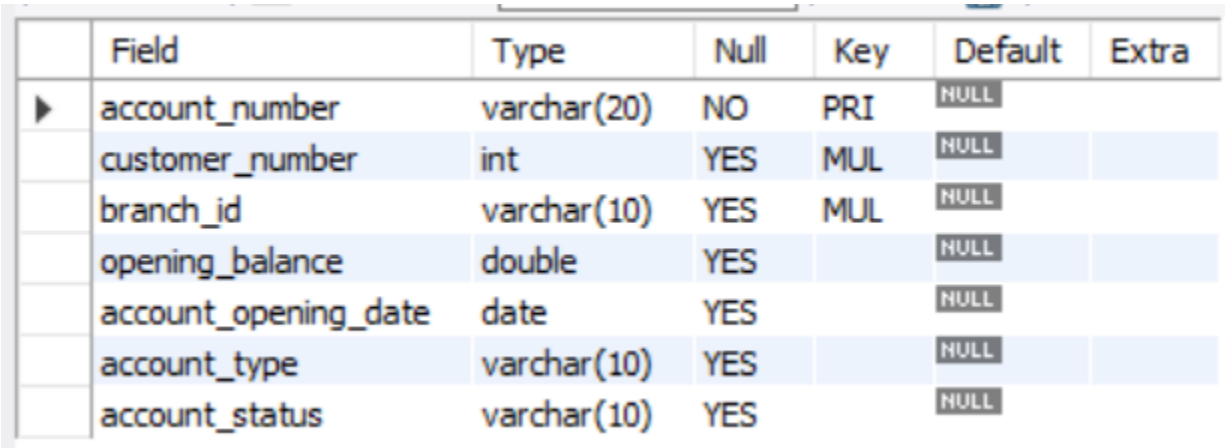
INSERT INTO branch_master (branch_id, branch_name, branch_city) VALUES
('BR001', 'Main Branch', 'Coimbatore'),
('BR002', 'Downtown Branch', 'Chennai'),
('BR003', 'Uptown Branch', 'Pollachi'),
('BR004', 'Westside Branch', 'Coimbatore'),
('BR005', 'Eastend Branch', 'Chennai');

	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
▶	BR001	Main Branch	Coimbatore
	BR002	Downtown Branch	Chennai
	BR003	Uptown Branch	Pollachi
	BR004	Westside Branch	Coimbatore
	BR005	Eastend Branch	Chennai
*	NULL	NULL	NULL

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

Query : alter table account
add constraint ac_fk foreign key(branch_id) references branch_master(branch_id);



Field	Type	Null	Key	Default	Extra
account_number	varchar(20)	NO	PRI	NULL	
customer_number	int	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	