Step 1 : Add primary key constraint to customer_id in customer table.

Query : alter table customer add constraint cus_pk Primary Key(customer_id);

Field	Type	Null	Key	Default	Extra
customer_id	int	NO	PRI	NULL	
first_name	varchar(30)	YES		NULL	
customer_city	varchar(15)	YES		NULL	
customer_contact_no	varchar(10)	YES		NULL	
occupation	varchar(10)	YES		NULL	
customer_date_of_birth	date	YES		NULL	
lastname	varchar(10)	YES		NULL	

Step 2 : Add primary key constraint to account_number in account table.

Query : alter table account add constraint acc_pk Primary Key(account_number);

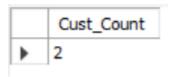| Field	Type	Null	Key	Default	Extra
account_number	varchar(20)	NO	PRI	NULL	
customer_number	int	YES	MUL	NULL	
branch_id	varchar(10)	YES		NULL	
opening_balance	double	YES		NULL	
account_opening_date	date	YES		NULL	
account_type	varchar(10)	YES		NULL	
account_status	varchar(10)	YES		NULL	

Step 3 : Add foreign key constraint to customer_number in account table which refers customer_id of customer table.

Query : alter table account add constraint foreign key(customer_number)
references customer(customer_id) on delete set null;

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

Step 4 : Write a query to display the number of customer's from Chennai. Give the count an alias name of Cust_Count.

Query : select count(customer_city) Cust_Count from customer where customer_city = 'chennai';

	Cust_Count
▶	2

Step 5 : Write a query to display the customer number, customer firstname,account number for the customer's whose accounts were created after 15th of any month.

Query : select a.customer_number, c.first_name, a.account_number
from customer c join account a
on a.customer_number = c.customer_id
where dayofmonth(a.account_opening_date) > 15;

	customer_number	first_name	account_number
▶	2	snajeev	1002
	4	surya	1004

Step 6 : .Write a query to display the number of customers who have registration but no account in the bank. Give the alias name as Count_Customer for number of customers.

Query : select count(customer_number) from account where customer_number not in (select customer_id from customer);

	count(customer_number)
▶	0

Step 7 : .Create table transaction_details with columns
   transaction_number VARCHAR(6)
   account_number VARCHAR(6)
   date_of_transaction DATE
   medium_of_transaction VARCHAR(20)
   transaction_type VARCHAR(20)
   transaction_amount double

Query : create table transaction_details(
   transaction_number VARCHAR(6),
   account_number VARCHAR(6),
   date_of_transaction DATE,
   medium_of_transaction VARCHAR(20),
   transaction_type VARCHAR(20),
   transaction_amount double);

	Field	Type	Null	Key	Default	Extra
▶	transaction_number	varchar(6)	YES		NULL	
	account_number	varchar(6)	YES		NULL	
	date_of_transaction	date	YES		NULL	
	medium_of_transaction	varchar(20)	YES		NULL	
	transaction_type	varchar(20)	YES		NULL	
	transaction_amount	double	YES		NULL	

Step 8 : Add foreign key constraint to account_number in transaction table which refers account_number of account table.

Query : alter table transaction_details add constraint trs_fk foreign key(account_number) references account(account_number) on delete set null;

	Field	Type	Null	Key	Default	Extra
▶	transaction_number	varchar(6)	YES		NULL	
	account_number	varchar(6)	YES	MUL	NULL	
	date_of_transaction	date	YES		NULL	
	medium_of_transaction	varchar(20)	YES		NULL	
	transaction_type	varchar(20)	YES		NULL	
	transaction_amount	double	YES		NULL	

Step 9 : Insert rows in transaction table

Query : INSERT INTO transaction_details (transaction_number, account_number, date_of_transaction, medium_of_transaction, transaction_type, transaction_amount) VALUES
('TXN001', '1001', '2025-07-01', 'Online Banking', 'Deposit', 1000.00),
('TXN002', '1002', '2025-07-02', 'ATM', 'Withdrawal', 200.00),
('TXN003', '1003', '2025-07-03', 'Branch', 'Deposit', 500.00),
('TXN004', '1004', '2025-07-04', 'Mobile App', 'Withdrawal', 150.00);

transaction_number	account_number	date_of_transaction	medium_of_transaction	transaction_type	transaction_amount
TXN001	1001	2025-07-01	Online Banking	Deposit	1000
TXN002	1002	2025-07-02	ATM	Withdrawal	200
TXN003	1003	2025-07-03	Branch	Deposit	500
TXN004	1004	2025-07-04	Mobile App	Withdrawal	150

Step 10 : Write a query to display the total number of withdrawals and total number of deposits being done by customer whose customer number ends with 001. The query should display transaction type and the number of transactions. Give an alias name as Trans_Count for number of transactions.
Display the records sorted in ascending order based on transaction type.

Query : select td.transaction_type, count(td.transaction_type) Trans_Count
from transaction_details td join account ac on td.account_number = ac.account_number
where ac.customer_number like '%1%' group by td.transaction_type order by transaction_type;

transaction_type	Trans_Count
Deposit	1
Withdrawal	1