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

alter table customer modify CUSTOMER_ID int;

alter table customer add constraint primary key (CUSTOMER_ID) ;

Field	Type	Null	Key	Default
CUSTOMER_ID	int	NO	PRI	NULL
FIRSTNAME	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(20)	YES		NULL

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

alter table account modify ACCOUNT_NUMBER int;

alter table account add constraint primary key (account_number);

Field	Type	Null	Key	Default
ACCOUNT_NUMBER	int	NO	PRI	NULL
CUSTOMER_NUMBER	varchar(20)	YES		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

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

alter table account modify CUSTOMER_NUMBER int;

alter table account add constraint foreign key (customer_number)
references customer (Customer_id);

Field	Type	Null	Key	Default
ACCOUNT_NUMBER	int	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

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

select count(customer_id) 'Cust_Count' from customer where CUSTOMER_CITY='Chennai';

Cust_Count
2

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.

SELECT A.CUSTOMER_NUMBER, C.FIRSTNAME, A.ACCOUNT_NUMBER
FROM Account A
JOIN Customer C ON A.CUSTOMER_NUMBER = C.CUSTOMER_ID
WHERE DAY(ACCOUNT_OPENING_DATE) > 15;

CUSTOMER_NUMBER	FIRSTNAME	ACCOUNT_NUMBER
4	Meena	4

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.

```
SELECT COUNT(*) AS Count_Customer
FROM Customer C
WHERE NOT EXISTS (
   SELECT 1 FROM Account A
   WHERE A.CUSTOMER_NUMBER = C.CUSTOMER_ID
);
```

	Count_Customer
▶	1

7.Create table transaction_details with columns

```
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
▶	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

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

```
ALTER TABLE Transaction_Details
ADD CONSTRAINT FK_Transaction_Account FOREIGN KEY (ACCOUNT_NUMBER)
REFERENCES Account(ACCOUNT_NUMBER);
```

Field	Type	Null	Key	Default
transaction_number	varchar(6)	YES		NULL
account_number	int	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

9.Insert rows in transaction table

```
INSERT INTO Transaction_Details (TRANSACTION_NUMBER, ACCOUNT_NUMBER,
DATE_OF_TRANSACTION, MEDIUM_OF_TRANSACTION, TRANSACTION_TYPE,
TRANSACTION_AMOUNT)
VALUES
('T00001', '1', '2024-01-18', 'Online', 'Deposit', 5000),
('T00002', '1', '2024-01-25', 'ATM', 'Withdrawal', 2000),
('T00003', '3', '2024-02-10', 'Branch', 'Deposit', 3000),
('T00004', '1', '2024-03-20', 'Online', 'Withdrawal', 1500),
('T00005', '2', '2024-03-05', 'ATM', 'Deposit', 7000);
```

transaction_number	account_number	date_of_transaction	medium_of_transaction	transaction_type	transaction_amount
T00001	1	2024-01-18	Online	Deposit	5000
T00002	1	2024-01-25	ATM	Withdrawal	2000
T00003	3	2024-02-10	Branch	Deposit	3000
T00004	1	2024-03-20	Online	Withdrawal	1500
T00005	2	2024-03-05	ATM	Deposit	7000

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.

```
SELECT TD.TRANSACTION_TYPE, COUNT(*) AS Trans_Count
FROM Transaction_Details TD
JOIN Account A ON TD.ACCOUNT_NUMBER = A.ACCOUNT_NUMBER
WHERE A.CUSTOMER_NUMBER LIKE '%1'
GROUP BY TD.TRANSACTION_TYPE
ORDER BY TD.TRANSACTION_TYPE ASC;
```

TRANSACTION_TYPE	Trans_Count
Deposit	1
Withdrawal	2