```sql
CREATE DATABASE ICIC_bank;


USE ICIC_bank;


CREATE TABLE Account_Type(

Account_no INT primary KEY,

Type_Account varchar(225),

Manager_id int,

Department_name varchar(225),

Opening_date date

);


INSERT INTO Account_Type (Account_no ,Type_Account,Manager_id ,Department_name ,Opening_date )

VALUES

(1236, "salary", 103, "tulsi nagar", "2023-01-3"),

(1237, "saving", 104, "dharampeth","2023-01-4"),

(1238, "saving", 105, "mahal","2023-01-1"),

(1239, "current", 106, "shantinagar","2023-01-5"),

(1240, "salary", 107, "tulsi nagar", "2023-01-6"),

(1241, "saving", 108, "dharampeth", "2023-01-7");


CREATE TABLE Department(
```

```sql
Department_id INT primary KEY,

Dep_name varchar(225),

Manager_id int,

Employee_id INT,

Account_no INT,

FOREIGN KEY(Account_no) References Account_Type(Account_no)

on delete cascade

);


INSERT INTO Department (Department_id , Dep_name , Manager_id , Employee_id, Account_no)

VALUES

(1001, "tulsi nagar" ,103, 1113,1236),

(1002,"dharampeth" ,104, 1114,1237),

(1003, "mahal", 105, 1115,1238 ),

(1004,"shantinagar" , 106,1116,1239),

(1005, "tulsi nagar" , 107,1117,1240),


CREATE TABLE Banks (

Branch_code NVARCHAR(20) PRIMARY KEY,

Address VARCHAR(255),

Department_id INT FOREIGN KEY REFERENCES Department(Department_id),

Branch_name VARCHAR(100),

State VARCHAR(2)
```

```sql
);


INSERT INTO Banks (Branch_code, Address, Department_id, Branch_name, State)

VALUES

('B789', '300 Oak St', 3, 'South Branch', 'FL'),

('C101', '400 Pine St', 1, 'North Branch', 'CA'),

('C202', '500 Maple St', 2, 'East Branch', 'NY'),

('C303', '600 Cedar St', 3, 'Downtown Branch', 'FL'),

('D404', '700 Walnut St', 1, 'Uptown Branch', 'CA');


CREATE TABLE Job_Details (

Job_id INT PRIMARY KEY,

Department_id INT FOREIGN KEY REFERENCES Department(Department_id),

Branch_code NVARCHAR(20) FOREIGN KEY REFERENCES Banks(Branch_code)

);


INSERT INTO Job_Details (Job_id, Department_id, Branch_code)

VALUES

(103, 3, 'B789'),

(104, 1, 'C101'),

(105, 2, 'C202'),

(106, 3, 'C303'),

(107, 1, 'D404');
```

```sql
CREATE TABLE Employees (

Employee_id INT PRIMARY KEY,

First_name VARCHAR(50),

Department_id INT FOREIGN KEY REFERENCES Department(Department_id),

Manager_id INT, -- Assuming Manager_id also refers to Employee_id

Job_id INT FOREIGN KEY REFERENCES Job_Details(Job_id),

Email VARCHAR(100),

Hire_Date DATE,

Phone_no VARCHAR(20),

Salary DECIMAL(10,2)

);
```

```sql
INSERT INTO Employees (Employee_id, First_name, Department_id, Manager_id, Job_id, Email, Hire_Date, Phone_no, Salary)

VALUES

(1, 'Charlie', 3, 2, 103, 'charlie@example.com', '2023-12-03', '555-3434', 70000.00),

(2, 'David', 1, 1, 104, 'david@example.com', '2023-12-04', '555-4545', 80000.00),

(3, 'Emily', 2, 3, 105, 'emily@example.com', '2023-12-05', '555-5656', 90000.00),

(4, 'Frank', 3, 2, 106, 'frank@example.com', '2023-12-06', '555-6767', 100000.00),

(5, 'Grace', 1, 4, 107, 'grace@example.com', '2023-12-07', '555-7878', 110000.00);
```

```sql
CREATE TABLE Customer (

Account_No INT PRIMARY KEY,

First_Name VARCHAR(50),

City VARCHAR(50),

Branch_code NVARCHAR(20) FOREIGN KEY REFERENCES Banks(Branch_code),

Employee_id INT FOREIGN KEY REFERENCES Employees(Employee_id),

Phone_no VARCHAR(20),

ATM_NO INT UNIQUE,

Exp_date DATE,

Pin_No INT UNIQUE

);




INSERT INTO Customer (Account_No, First_Name, City, Branch_code, Employee_id, Phone_no, ATM_NO, Exp_date, Pin_No)

VALUES

(1001, 'Peter', 'Chennai', 'B789', 3, '7654321098', 34567, '2025-12-31', 3333),

(1002, 'Mary', 'Bangalore', 'C101', 4, '6543210987', 45678, '2025-12-31', 4444),

(1003, 'David', 'Delhi', 'C202', 5, '5432109876', 56789, '2025-12-31', 5555),

(1004, 'Lisa', 'Kolkata', 'C303', 6, '4321098765', 67890, '2025-12-31', 6666),

(1005, 'Robert', 'Hyderabad', 'D404', 7, '3210987654', 78901, '2025-12-31', 7777);
```

SOLUTIONS

Q1) SELECT *FROM employees

WHERE employee_id = 52 AND branch_name = 'icic';

Q2) select e.employee_id, e.hire_date, e.address

From employees e

join departments d ON e.department_id = d.department_id

where d.department_name = 'loan';

Q3) select d.department_name,d.address AS department_address,b.branch_code,d.dept_id, b.city

from accounts_type

Join departments d on a.dept_id = d.dept_id

join branches b ON d.branch_code = b.branch_code

where a.account_no = 18190;

Q4) select e.department_id, d.department_name,e.job_id

From employees

join departments d on e.department_id = d.department_id

where d.department_name in ('Loan', 'HR', 'Admin')

group by e.department_id, d.department_name, e.job_id

having Count(DISTINCT d.department_name) = 3;

Q5) SELECT a.type_account, a.state, a.account_number

From accounts a

Join atm_details atm ON a.account_number = atm.account_number

where atm.atm_number = 422748663;

Q6) CREATE VIEW EmployeeInfo as

select e.address, b.branch_name,d.department_name,e.first_name, pn.phone_no

From employees

Join departments on e.department_id = d.department_id

Join branches on d.branch_code = b.branch_code

Join phone_numbers on e.employee_id = pn.employee_id;

Q8) CREATE VIEW employee_job_details as

Select employee_id, first_name, last_name, job_id, hire_date,salary, commission_pct, department_id,manager_id

from employees

where job_id IN ('CLERK', 'MANAGER', 'ACCOUNTANT');

Q9) update atm_details

set atm_pin = 42321992

where employee_id = (select employee_id from employee_job_details

where atm_pin = 423295535

);