

----- ICIC BANK MANAGEMENT SYSTEM PROJECT -----

```
create database mini_project;
```

```
use mini_project;
```

```
--- create ACCOUNT_Type table -----
```

```
CREATE TABLE Account_Type (  
    Account_no INT PRIMARY KEY,  
    Type_Acc VARCHAR(300),  
    Manager_id INT,  
    Department_name VARCHAR(300),  
    Opening_Date VARCHAR(100)  
);
```

```
----- INSERT THE VALUES INTO THE TABLE -----
```

```
INSERT INTO account_type values (12345, 'Saving', 20, 'Account', '2003-04-23');  
  
INSERT INTO account_type values (67899, 'loan', 21, 'Loan', '2004-05-24'), (10112, 'Saving', 22, 'HR',  
'2006-01-04'), (13145, 'loan', 23, 'Admin', '2003-04-23'),  
  
(15167, 'current', 24, 'Sales', '2004-05-24'), (18190, 'business', 25, 'Security', '2006-01-04'), (20210,  
'loan', 26, 'Account', '2003-04-23'),  
  
(22230, 'Saving', 27, 'Loan', '2004-05-24'), (24250, 'loan', 28, 'HR', '2006-01-04'), (26270, 'current', 29,  
'Admin', '2003-04-23'),  
  
(28290, 'business', 30, 'Sales', '2004-05-24'), (30310, 'current', 31, 'Security', '2006-01-04'), (32330,  
'Saving', 32, 'Account', '2003-04-23'),  
  
(34350, 'loan', 33, 'Loan', '2004-05-24'), (36370, 'current', 34, 'HR', '2006-01-04'), (38390, 'current', 35,  
'Admin', '2003-04-23'),  
  
(40410, 'business', 36, 'Sales', '2004-05-24'), (42430, 'loan', 37, 'Security', '2006-01-04'), (44450,  
'Saving', 38, 'Account', '2003-04-23'),  
  
(46470, 'loan', 39, 'Loan', '2004-05-24'), (48490, 'Saving', 40, 'HR', '2006-01-04');
```

```
select * from account_type;
```

```
--- CREATE TABLE DEPARTMENT -----
```

```
CREATE TABLE Departments (  
    Department_Id int primary key,  
    Department_Name varchar(300),  
    Manager_Id int,  
    Employee_Id int,  
    Account_No int,  
    foreign Key (Account_No) references Account_Type(Account_No));
```

```
----- INSERT THE VALUES INTO THE TABLE -----
```

```
INSERT INTO Departments (Department_id, Department_name, Manager_id, Employee_id,  
Account_no)
```

```
VALUES
```

```
(1, 'Account', 20, 50, 12345),  
(8, 'Loan', 21, 51, 67899),  
(11, 'HR', 22, 52, 10112),  
(16, 'Admin', 23, 53, 13145),  
(19, 'Sales', 24, 54, 15167),  
(21, 'Security', 25, 55, 18190),  
(56, NULL, NULL, NULL, 20210);
```

```
select * from Departments;
```

----- CREATE TABLE BANK DETAILS -----

```
create table Bank_Details (Branch_Code int primary key, Address varchar(50), Department_Id int,  
foreign key (Department_Id) references Departments(Department_Id),  
Branch_Name varchar(40), State varchar(40));
```

---- INSERT THE VALUES INTO THE TABLE -----

```
INSERT INTO Bank_Details (Branch_code, Address, Department_id, Branch_name, State)
```

```
VALUES
```

```
(100, 'Ngapur', 1, 'ICIC_N', 'Maharashtra'),  
(101, 'Pune', 1, 'ICIC_P', 'Maharashtra'),  
(102, 'Mumbai', 1, 'ICIC_M', 'Maharashtra'),  
(103, 'Delhi', 1, 'ICIC_D', 'DEL'),  
(104, 'Mumbai', 1, 'ICIC_M', 'Maharashtra'),  
(105, 'Delhi', 1, 'ICIC_D', 'DEL'),  
(106, 'Ngapur', 1, 'ICIC_N', 'Maharashtra'),  
(107, 'Pune', 8, 'ICIC_P', 'Maharashtra'),  
(108, 'Mumbai', 8, 'ICIC_M', 'Maharashtra'),  
(109, 'Ngapur', 8, 'ICIC_N', 'Maharashtra'),  
(110, 'Pune', 11, 'ICIC_P', 'Maharashtra'),  
(111, 'Mumbai', 11, 'ICIC_M', 'Maharashtra'),  
(112, 'Delhi', 11, 'ICIC_D', 'DEL'),  
(113, 'Ngapur', 11, 'ICIC_N', 'Maharashtra'),  
(114, 'Pune', 11, 'ICIC_P', 'Maharashtra'),  
(115, 'Mumbai', 16, 'ICIC_M', 'Maharashtra'),  
(116, 'Ngapur', 16, 'ICIC_N', 'Maharashtra'),  
(117, 'Pune', 16, 'ICIC_P', 'Maharashtra'),  
(118, 'Mumbai', 19, 'ICIC_M', 'Maharashtra'),
```

```
(119, 'Delhi', 19, 'ICIC_D', 'DEL'),  
(120, 'Pune', 21, 'ICIC_P', 'Maharashtra');
```

```
select * from Bank_details;
```

```
----- CREATE TABLE JOB_DETAILS -----
```

```
create table Job_Details (Job_Id int primary key, Department_Id int,  
foreign key (Department_Id) references Departments(Department_Id),  
Branch_Code int, foreign key (Branch_Code) references Bank_Details(Branch_Code));  
alter table Job_Details Modify column Job_Id varchar(40);
```

```
----- INSERT THE VALUES INTO THE TABLES -----
```

```
INSERT INTO Job_Details (Job_Id, Department_id, Branch_Code)
```

```
VALUES
```

```
('ST_CLERK', 1, 101),
```

```
('ST_MAN', 8, 108),
```

```
('FI_ACCOUNT', 11, 113),
```

```
('SA_REP', 19, 118);
```

```
select * from Job_Details;
```

```
---- CREATE TABLE EMPLOYEES ----
```

```
CREATE TABLE Employees (Employee_id INT PRIMARY KEY, First varchar (100), Department_id INT,  
Manager_id INT,
```

```
Job_id VARCHAR(100), Email VARCHAR(100), Hire_Date VARCHAR(200),
```

```
Phone_no VARCHAR(100), Salary INT,
```

```
FOREIGN KEY (Department_id) REFERENCES Departments(Department_id),  
FOREIGN KEY (Job_id) REFERENCES Job_Details(Job_id)  
);
```

---- INSERT THE VALUES INTO THE TABLE -----

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

```
VALUES
```

```
(50, 'Samuel', 1, 20, 'ST_CLERK', 'SMCCAIN', '2007-11-23', '650.505.1876', 3800),  
(51, 'Allan', 8, 21, 'ST_CLERK', 'SSEWALL', '2004-01-30', '650.505.2876', 3600),  
(52, 'Irene', 11, 22, 'ST_CLERK', 'SSTILES', '2004-03-04', '650.505.3876', 2900),  
(53, 'Kevin', 16, 23, 'ST_CLERK', 'STOBIAS', '2004-08-01', '650.505.4876', 2500),  
(54, 'Julia', 19, 24, 'ST_CLERK', 'SVOLLMAN', '2005-03-10', '650.501.1876', 4000),  
(55, 'Donald', 21, 25, 'ST_CLERK', 'TFOX', '2005-12-15', '650.501.2876', 3900),  
(56, 'Christopher', 1, 26, 'ST_CLERK', 'TGATES', '2006-11-03', '650.501.3876', 3200),  
(57, 'TJ', 8, 27, 'ST_MAN', 'TJOLSON', '2005-11-11', '650.501.4876', 2800),  
(58, 'Lisa', 11, 28, 'ST_MAN', 'TRAJS', '2007-03-19', '650.507.9811', 3100),  
(59, 'Karen', 16, 29, 'ST_MAN', 'VJONES', '2008-01-24', '650.507.9822', 3000),  
(60, 'Valli', 19, 30, 'ST_MAN', 'VPATABAL', '2008-02-23', '650.507.9833', 2600),  
(61, 'Joshua', 21, 31, 'ST_MAN', 'WGIETZ', '2003-05-01', '650.507.9844', 6400),  
(62, 'Randall', 1, 32, 'FI_ACCOUNT', 'WSMITH', '2005-10-10', '515.123.4444', 6200),  
(63, 'Hazel', 8, 33, 'FI_ACCOUNT', 'WTAYLOR', '2007-11-16', '515.123.5555', 11500),  
(64, 'Luis', 11, 34, 'FI_ACCOUNT', 'JNAYER', '2005-07-16', '603.123.6666', 10000),  
(65, 'Trenna', 16, 35, 'FI_ACCOUNT', 'JPATEL', '2006-09-28', '515.123.7777', 9600),  
(66, 'Den', 19, 36, 'FI_ACCOUNT', 'JRUSSEL', '2007-01-14', '515.123.8888', 7400),  
(67, 'Michael', 21, 37, 'SA_REP', 'JSEO', '2008-03-08', '515.123.8080', 7300),  
(68, 'John', 1, 38, 'SA_REP', 'JTAYLOR', '2005-08-20', '011.44.1346.329268', 6100),  
(69, 'Nandita', 8, 39, 'SA_REP', 'JWHALEN', '2005-10-30', '011.44.1346.529268', 11000),
```

```
(70, 'Ismael', 11, 40, 'SA_REP', 'KCHUNG', '2005-02-16', '011.44.1346.52', 8800);
```

```
SELECT * FROM Employees;
```

```
----- CREATE TABLE CUSTOMER -----
```

```
CREATE TABLE Customer (Account_No int primary key,  
First_Name varchar(50),  
City varchar(40),  
Branch_Code int, foreign key (Branch_Code) references Bank_Details(Branch_Code),  
Employee_Id int, foreign key (Employee_Id) references Employees(Employee_Id),  
Phone_no int, ATM_NO int unique, Expire_Date date, PIN_NO int unique);  
ALTER TABLE Customer ADD COLUMN Exp_date DATE;  
ALTER TABLE Customer MODIFY COLUMN Phone_no VARCHAR(20);
```

```
----- INSERT THE VALUES INTO THE TABLE -----
```

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

```
VALUES
```

```
(12345, 'Samuel', 'Ngapur', 100, 50, '650.505.1876', 423705689, '2006-04-23', 5689),  
(67899, 'Allan', 'pune', 101, 51, '650.505.2876', 423568971, '2007-05-24', 8971),  
(10112, 'Irene', 'Mumbai', 102, 52, '650.505.3876', 423432253, '2008-01-04', 12253),  
(13145, 'Kevin', 'delhi', 103, 53, '650.505.4876', 423295535, '2006-01-24', 15535),  
(15167, 'Julia', 'Mumbai', 104, 54, '650.501.1876', 423158817, '2006-02-23', 18817),  
(18190, 'Donald', 'delhi', 105, 55, '650.501.2876', 423022099, '2007-06-21', 22099),  
(20210, 'Christopher', 'Ngapur', 106, 56, '650.501.3876', 422885381, '2008-02-03', 25381),  
(22230, 'TJ', 'pune', 107, 57, '650.501.4876', 422748663, '2004-01-27', 28663),  
(24250, 'Lisa', 'Mumbai', 108, 58, '650.507.9811', 422611945, '2005-02-20', 31945),
```

(26270, 'Karen', 'Ngapur', 109, 59, '650.507.9822', 422475227, '2006-06-24', 35227),
 (28290, 'Valli', 'pune', 110, 60, '650.507.9833', 422338509, '2007-02-07', 38509),
 (30310, 'Joshua', 'Mumbai', 111, 61, '650.507.9844', 422201791, '2008-01-13', 41791),
 (32330, 'Randall', 'delhi', 112, 62, '515.123.4444', 422065073, '2003-09-17', 45073),
 (34350, 'Hazel', 'Ngapur', 113, 63, '515.123.5555', 421928355, '2004-02-17', 48355),
 (36370, 'Luis', 'pune', 114, 64, '603.123.6666', 421791637, '2005-08-17', 51637),
 (38390, 'Trenna', 'Mumbai', 115, 65, '515.123.7777', 421654919, '2002-06-07', 54919),
 (40410, 'Den', 'Ngapur', 116, 66, '515.123.8888', 421518201, '2002-06-07', 58201),
 (42430, 'Michael', 'pune', 117, 67, '515.123.8080', 421381483, '2002-06-07', 61483),
 (44450, 'John', 'Mumbai', 118, 68, '011.44.1346.329268', 421244765, '2002-06-07', 64765),
 (46470, 'Nandita', 'delhi', 119, 69, '011.44.1346.529268', 421108047, '2008-04-21', 68047),
 (48490, 'Ismael', 'Pune', 120, 70, '011.44.1346.52', 420971329, '2005-03-11', 71329);

SELECT * FROM CUSTOMER;

----- DATA RETRIEVING PROBLEMS -----

-- QUE1) Find an employee's whose id is 52 and branch name is icicp

-- Ans:-

SELECT *

FROM Employees

JOIN Bank_Details ON Employees.Department_id = Bank_Details.Department_id

WHERE Employees.Employee_id = 52 AND Bank_Details.Branch_name = 'ICIC_P';

-- QUE2) Count the number of employees working in the loan department and show its opening dates and address.

-- Ans:-

SELECT COUNT(*) AS EmployeeCount, e.Hire_Date, bd.Address

FROM Employees e

```
JOIN Departments d ON e.Department_id = d.Department_id
JOIN Bank_Details bd ON e.Department_id = bd.Department_id
WHERE d.Department_name = 'Loan'
GROUP BY e.Hire_Date, bd.Address;
```

-- QUE3) Find details department name, address, branch code, dept _id, city of the account no 18190.

-- Ans:-

```
SELECT D.Department_name, B.Address, B.Branch_code, D.Department_id, C.City
FROM Departments AS D
JOIN Bank_Details AS B ON D.Department_Id = B.Department_id
JOIN Customer AS C ON B.Branch_code = C.Branch_code
WHERE C.Account_No = 18190;
```

-- QUE4) Find department id, department name, job id whose only work in Loan, HR, admin.

-- Ans:-

```
SELECT D.Department_id, D.Department_name, E.Job_id
FROM Departments AS D
JOIN Employees AS E ON D.Department_id = E.Department_id
WHERE D.Department_name IN ('Loan', 'HR', 'Admin')
GROUP BY D.Department_id, D.Department_name, E.Job_id
HAVING COUNT(DISTINCT E.Job_id) = 1;
```

-- QUE5) Find the type_account, state account number whose atm no 422748663.

-- Ans:-

```
SELECT Type_Acc, State, Customer.Account_no
FROM Account_Type
JOIN Customer ON Account_Type.Account_no = Customer.Account_No
JOIN Bank_Details ON Customer.Branch_Code = Bank_Details.Branch_Code
WHERE Customer.ATM_NO = 422748663;
```


-- QUE6) Create a view with that show address, branch name, department name, first name. phone no.

-- Ans:-

```
CREATE VIEW Employee_View AS
```

```
SELECT Bank_Details.Address, Bank_Details.Branch_Name, Departments.Department_Name,  
Employees.First, Employees.Phone_no
```

```
FROM Employees
```

```
JOIN Departments ON Employees.Department_id = Departments.Department_Id
```

```
JOIN Bank_Details ON Departments.Department_Id = Bank_Details.Department_Id;
```

```
SELECT * FROM EmployeeDetails;
```

-- QUE7) Create view city, department name whose opening date is less than 24 May 04

-- Ans:-

```
CREATE VIEW AccountDetails AS
```

```
SELECT C.City, D.Department_name
```

```
FROM Account_Type AS AT
```

```
JOIN Customer AS C ON AT.Account_no = C.Account_No
```

```
WHERE at.opening_Date < '2004-05-24';
```

```
SELECT * FROM AccountDetails;
```

-- QUE8) Create view only job id for clerk, manager, an accountant with all detail and name it employee job_deatils

-- Ans:-

```
CREATE VIEW Employee_Job_detail AS
```

```
SELECT job_Details.*, Employees.First, Employees.Phone_No, Employees.Email, Employees.Hire_Date
```

```
FROM Job_Details
```

```
JOIN Employees ON job_details.Job_id = Employees.Job_id
```

```
WHERE job_details.job_id IN ('CLERK', 'MANAGER', 'ACCOUNTANT');
```

```
SELECT * FROM employee_job_details;
```

-- Que9) In the job details change the atm pin 423295535 with 42321992

-- Ans:-

```
SELECT * FROM CUSTOMER;
```

```
UPDATE Customer
```

```
SET Pin_No = 42321992
```

```
WHERE ATM_NO = 423295535;
```

-- QUE10) IN the Account_type table change all the sales account into admin.

-- Ans:-

```
UPDATE Account_Type
```

```
Set Department_name = 'Admin'
```

```
WHERE Department_name = 'Sales' AND Account_no > 0;
```