```sql
CREATE DATABASE ICIC_BANK;
use ICIC_BANK ;


CREATE TABLE account_type(account_no INT PRIMARY KEY,
                          type_account VARCHAR(255) NOT NULL,
                          manager_id INT,
                          department_name VARCHAR(200),
                          opening_date DATE );

INSERT INTO
account_type(account_no,type_account,manager_id,department_name,Opening_Date)
VALUES (12345, "Saving", 20, "Account", '23-04-03'),
(67899, "loan", 21, "Loan", '24-05-04'),
(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 (department_id INT PRIMARY KEY,
                         department_name VARCHAR(255) NOT NULL,
                         manager_id INT (30),
                         employee_id INT (30),
                         account_no INT (40));
alter table Department
add constraint fk2 foreign key (Account_no) references Customer(Account_no);

INSERT INTO
department(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);


select * from department;

CREATE TABLE BankDetails (Branch_code INT (100) PRIMARY KEY,
                          Address VARCHAR (80),
                          Department_id INT (29),
                          Branch_name VARCHAR (40),
                          State VARCHAR(30));
alter table BankDetails
add constraint fk8 foreign key (Department_id ) references Department
```

```
(Department_id);

insert into BankDetails (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 BankDetails;

CREATE TABLE job_details ( job_id varchar (60) PRIMARY KEY,
                                         department_id INT,
                                         branch_code INT);

alter table Job_details
add constraint fk4 foreign key (Department_id) references
Department(Department_id);
alter table Job_details
add constraint fk5 foreign key (Branch_code)  references
BankDetails(Branch_code);

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 (employee_id INT PRIMARY KEY,
                                   first_name VARCHAR(255) NOT NULL,
                                   department_id INT,
                                   manager_id INT,
                                   job_id VARCHAR(200),
                                   email VARCHAR(100),
                                   hire_date DATE,
                                   phone_no VARCHAR(33),
                                   salary DECIMAL(10,2));

alter table Employees
add constraint fk6 foreign key (Department_id) references   Department
(Department_id) ;
alter table  Employees
add constraint fk7 foreign key (Job_id) references  Job_Details  (Job_id) ;

insert into
```

```
Employees(Employee_id,First_name,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", '2008-04-08',
"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 ( Account_No INT PRIMARY KEY,
                                 First_Name VARCHAR(255),
                                 City VARCHAR(255),
                                 Branch_code INT,
                                 Employee_id INT,
                                 Phone_no VARCHAR(45),
                                 ATM_NO VARCHAR(50) UNIQUE,
                                 Exp_date DATE,
                                 Pin_No INT UNIQUE);
alter table Customer
add constraint fk foreign key (branch_code) references bankdetails(Branch_code )
;
alter table Customer
add constraint fk1 foreign key (employee_id) references employees(employee_id);
insert into
Customer(Account_No,First_Name,City,Branch_code,Employee_id,Phone_no,ATM_NO,Exp_
```

```sql
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;




CREATE DATABASE ICIC_BANK;
use ICIC_BANK ;


CREATE TABLE account_type(account_no INT PRIMARY KEY,
                         type_account VARCHAR(255) NOT NULL,
                         manager_id INT,
                         department_name VARCHAR(200),
                         opening_date DATE );

INSERT INTO
account_type(account_no,type_account,manager_id,department_name,Opening_Date)
VALUES (12345, "Saving", 20, "Account", '23-04-03'),
(67899, "loan", 21, "Loan", '24-05-04'),
(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 (department_id INT PRIMARY KEY,
                                department_name VARCHAR(255) NOT NULL,
                                manager_id INT (30),
                                employee_id INT (30),
                                account_no INT (40));
alter table Department
add constraint fk2 foreign key (Account_no) references Customer(Account_no);

INSERT INTO
department(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);


select * from department;

CREATE TABLE BankDetails (Branch_code INT (100) PRIMARY KEY,
                                      Address VARCHAR (80),
                                      Department_id INT (29),
                                      Branch_name VARCHAR (40),
                                      State VARCHAR(30));
alter table BankDetails
add constraint fk8 foreign key (Department_id ) references Department
(Department_id);

insert into BankDetails (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 BankDetails;

CREATE TABLE job_details ( job_id varchar (60) PRIMARY KEY,
                                        department_id INT,
                                        branch_code INT);


alter table Job_details
add constraint fk4 foreign key (Department_id) references
Department(Department_id);
alter table Job_details
add constraint fk5 foreign key (Branch_code)  references
BankDetails(Branch_code);

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 (employee_id INT PRIMARY KEY,
                                        first_name VARCHAR(255) NOT NULL,
                                        department_id INT,
                                        manager_id INT,
                                        job_id VARCHAR(200),
                                        email VARCHAR(100),
                                        hire_date DATE,
                                        phone_no VARCHAR(33),
                                        salary DECIMAL(10,2));

alter table Employees
add constraint fk6 foreign key (Department_id) references   Department
(Department_id) ;
alter table  Employees
add constraint fk7 foreign key (Job_id) references  Job_Details  (Job_id) ;

insert into
Employees(Employee_id,First_name,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", '2008-04-08',
"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 ( Account_No INT PRIMARY KEY,
                                First_Name VARCHAR(255),
                                City VARCHAR(255),
                                Branch_code INT,
                                Employee_id INT,
                                Phone_no VARCHAR(45),
                                ATM_NO VARCHAR(50) UNIQUE,
                                Exp_date DATE,
                                Pin_No INT UNIQUE);
alter table Customer
add constraint fk foreign key (branch_code) references bankdetails(Branch_code )
;
alter table Customer
add constraint fk1 foreign key (employee_id) references employees(employee_id);
insert into
Customer(Account_No,First_Name,City,Branch_code,Employee_id,Phone_no,ATM_NO,Exp_
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-
```

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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;


CREATE DATABASE ICIC_BANK;
use ICIC_BANK ;


CREATE TABLE account_type(account_no INT PRIMARY KEY,
                          type_account VARCHAR(255) NOT NULL,
                          manager_id INT,
                          department_name VARCHAR(200),
                          opening_date DATE );

INSERT INTO
account_type(account_no,type_account,manager_id,department_name,Opening_Date)
VALUES (12345, "Saving", 20, "Account", '23-04-03'),
(67899, "loan", 21, "Loan", '24-05-04'),
(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');
```

```sql
select * from account_type;


CREATE TABLE department (department_id INT PRIMARY KEY,
                            department_name VARCHAR(255) NOT NULL,
                            manager_id INT (30),
                            employee_id INT (30),
                            account_no INT (40));
alter table Department
add constraint fk2 foreign key (Account_no) references Customer(Account_no);

INSERT INTO
department(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);


select * from department;

CREATE TABLE BankDetails (Branch_code INT (100) PRIMARY KEY,
                                Address VARCHAR (80),
                                Department_id INT (29),
                                Branch_name VARCHAR (40),
                                State VARCHAR(30));
alter table BankDetails
add constraint fk8 foreign key (Department_id ) references Department
(Department_id);

insert into BankDetails (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 BankDetails;

CREATE TABLE job_details ( job_id varchar (60) PRIMARY KEY,
                                department_id INT,
                                branch_code INT);


alter table Job_details
add constraint fk4 foreign key (Department_id) references
```

```
Department(Department_id);
alter table Job_details
add constraint fk5 foreign key (Branch_code)  references
BankDetails(Branch_code);

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 (employee_id INT PRIMARY KEY,
                                  first_name VARCHAR(255) NOT NULL,
                                  department_id INT,
                                  manager_id INT,
                                  job_id VARCHAR(200),
                                  email VARCHAR(100),
                                  hire_date DATE,
                                  phone_no VARCHAR(33),
                                  salary DECIMAL(10,2));

alter table Employees
add constraint fk6 foreign key (Department_id) references   Department
(Department_id) ;
alter table  Employees
add constraint fk7 foreign key (Job_id) references  Job_Details  (Job_id) ;

insert into
Employees(Employee_id,First_name,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',
```

```sql
"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", '2008-04-08',
"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 ( Account_No INT PRIMARY KEY,
                                 First_Name VARCHAR(255),
                                 City VARCHAR(255),
                                 Branch_code INT,
                                 Employee_id INT,
                                 Phone_no VARCHAR(45),
                                 ATM_NO VARCHAR(50) UNIQUE,
                                 Exp_date DATE,
                                 Pin_No INT UNIQUE);
alter table Customer
add constraint fk foreign key (branch_code) references bankdetails(Branch_code )
;
alter table Customer
add constraint fk1 foreign key (employee_id) references employees(employee_id);
insert into
Customer(Account_No,First_Name,City,Branch_code,Employee_id,Phone_no,ATM_NO,Exp_
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.

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';
```


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;
```


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;
```


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;
```


Find the type_account, state, and account number whose atm no is 422748663.

Ans:-

```
SELECT account_type.type_account, BankDetails.State, customer.Account_No
FROM customer
INNER JOIN account_type ON customer.Account_No = account_type.account_no
INNER JOIN BankDetails ON account_type.manager_id = BankDetails.Department_id
WHERE customer.ATM_NO = 422748663;
```

Find department id, department name, job id whose employees only work in Loan, HR, and Admin.

 Ans:-
```
SELECT department.department_id, department.department_name, employees.job_id
FROM employees
INNER JOIN department ON employees.department_id = department.department_id
WHERE department.department_name IN ('Loan', 'HR', 'Admin')
GROUP BY department.department_id, employees.job_id
HAVING COUNT(DISTINCT employees.job_id) = 1;
```

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

 Ans:-
```
SELECT department.department_name, BankDetails.Address, BankDetails.Branch_code,
department.department_id, customer.City
FROM department
INNER JOIN BankDetails ON department.Department_id = BankDetails.Department_id
INNER JOIN customer ON department.account_no = customer.Account_No
WHERE customer.Account_No = 18190;
```

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;
```

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;
```

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;
use ICIC_BANK;
select * from Account_Type;
select * from department;
select * from BankDetails;
select * from job_details;
select * from Employees;
select * from Customer;
```

department
- department_id INT
- department_name VARCHAR(255)
- manager_id INT
- employee_id INT
- account_no INT
- Indexes

job_details
- job_id VARCHAR(60)
- department_id INT
- branch_code INT
- Indexes

account_type
- account_no INT
- type_account VARCHAR(255)
- manager_id INT
- department_name VARCHAR(200)
- opening_date DATE
- Indexes

bankdetails
- Branch_code INT
- Address VARCHAR(80)
- Department_id INT
- Branch_name VARCHAR(40)
- State VARCHAR(30)
- Indexes

customer
- Account_No INT
- First_Name VARCHAR(255)
- City VARCHAR(255)
- Branch_code INT
- Employee_id INT
- Phone_no VARCHAR(45)
- ATM_NO VARCHAR(50)
- Exp_date DATE
- Pin_No INT
- Indexes

employees
- employee_id INT
- first_name VARCHAR(255)
- department_id INT
- manager_id INT
- job_id VARCHAR(200)
- email VARCHAR(100)
- hire_date DATE
- phone_no VARCHAR(33)
- salary DECIMAL(10,2)
- Indexes