```sql
create database ICICI_Bank_Management_System;

use ICICI_Bank_Management_System;

create table Account_type

(Account_no int not null primary key,

Type_Account varchar(100),

Manager_id int,

Department_Name varchar(100),

Opening_Date date);


create table Department

(Department_id int primary key,

Department_name varchar(100),

Manager_id int,

Employee_id int,

Account_no int,

foreign key (account_no) references Account_type(Account_no));


create table Bank_Details

(Branch_code int primary key,

Address varchar(100),

Department_id int,

Branch_name varchar(100),

State varchar(100),

foreign key (Department_id) references Department(Department_id));


create table Job_Details

(Job_id varchar(100) primary key,

Department_id int,

Branch_code int,

foreign key (Department_id) references Department(Department_id),

foreign key (Branch_code) references Bank_Details(Branch_code));
```

```sql
create table Employees

(Employee_id int primary key,

First_name varchar(100),

Department_id int,

Manager_id int,

Job_id varchar(100),

Email Varchar(100),

Hire_Date Date,

Phone_no Varchar(100),

Salary int,

foreign key (Department_id) references Department(Department_id),

foreign key (Job_id) references Job_Details(Job_id));


create table Customer

(Account_No int primary key,

First_Name varchar(100),

City varchar(100),

Branch_code int,

Employee_id int,

Phone_no varchar(100),

ATM_NO int unique,

Exp_date Date,

Pin_No int unique,

foreign key (Branch_code) references Bank_Details(Branch_code),

foreign key (Employee_id) references Employees(Employee_id));


insert into Account_Type

values

(12345,'Saving',20,'Account','2003-4-23'),

(67899,'loan',    21       ,'Loan','2004-5-24'),
```

```
(10112, 'Saving',          22,        'HR', '2006-1-4'),
(13145, 'loan',   23,      'Admin', '2003-4-23'),
(15167, 'current',         24,        'Sales','2004-5-24'),
(18190, 'business',        25,'Security','2006-1-4'),
(20210, 'loan',   26,      'Account','2003-4-23'),
(22230, 'Saving',          27,        'Loan','2004-5-24'),
(24250,'loan',    28,      'HR','2006-1-24'),
(26270, 'current',         29,        'Admin','2003-4-23'),
(28290, 'business',        30,        'Sales','2004-5-24'),
(30310, 'current',         31,        'Security','2006-4-6'),
(32330, 'Saving',          32,        'Account','2003-4-23'),
(34350, 'loan',   33,      'Loan','2004-5-24'),
(36370, 'current',         34,'HR','2006-1-4'),
(38390, 'current',         35,        'Admin','2003-4-23'),
(40410, 'business',        36,        'Sales','2004-5-24'),
(42430, 'loan',   37,      'Security','2006-1-4'),
(44450, 'Saving',          38,        'Account','2003-4-23'),
(46470, 'loan',   39,      'Loan','2004-5-24'),
(48490, 'Saving',          40,        'HR','2006-1-4');


insert into department
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);


insert into Bank_Details
```

```sql
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');

insert into Job_Details
values
('ST_CLERK',1,101),
('ST_MAN',8,108),
('FI_ACCOUNT',11,113),
('SA_REP',19,118);

insert into employees
```

values

(50,'Samuel',1,20,'ST_CLERK','SMCCAIN','2007-11-23','650.505.1876',3800),

(51,'Allan',8,21,'ST_CLERK','SSEWALL','2004-1-30','650.505.2876',3600),

(52,'Irene',11,22,'ST_CLERK','SSTILES','2004-3-4','650.505.3876',2900),

(53,'Kevin',16,23,'ST_CLERK','STOBIAS','2004-8-1','650.505.4876',2500),

(54,'Julia',19,24,'ST_CLERK','SVOLLMAN','2005-3-10','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','2006-11-3','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','2007-3-19','650.507.9811',3100),

(59,'Karen',16,29,'ST_MAN','VJONES','2008-1-24','650.507.9822',3000),

(60,'Valli',19,30,'ST_MAN',   'VPATABAL','2008-2-23', '650.507.9833',2600),

(61,'Joshua',   21,   31,   'ST_MAN','WGIETZ','2003-5-1','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', '2005-7-16','603.123.6666',10000),

(65,'Trenna',16,35,   'FI_ACCOUNT','JPATEL','2006-9-28','515.123.7777',9600),

(66,'Den',19,36,'FI_ACCOUNT','JRUSSEL','2007-1-14',   '515.123.8888',7400),

(67,'Michael',21,37,'SA_REP','JSEO','2008-3-8',   '515.123.8080',7300),

(68,'John',   1,   38,   'SA_REP','JTAYLOR','2005-8-20', '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',   '2005-2-16','011.44.1346.52',8800);

insert into customer

values

(12345, 'Samuel','Ngapur',100,50,'650.505.1876',423705689,'2006-4-23',5689),

(67899, 'Allan','pune',   101   ,51,'650.505.2876',   423568971,'2007-5-24',8971),

(10112, 'Irene','Mumbai',102,52,'650.505.3876', 423432253,'2008-1-4',12253),

(13145, 'Kevin','delhi',103,53,'650.505.4876',423295535,'2006-1-24',15535),

(15167, 'Julia','Mumbai',104,54,'650.501.1876', 423158817,'2006-2-23',18817),

(18190, 'Donald','delhi',105,55,'650.501.2876',   423022099,'2007-6-21',22099),

(20210, 'Christopher','Ngapur', 106   ,56,'650.501.3876',   422885381,'2008-2-3',25381),

(22230, 'TJ','pune',107,57,   '650.501.4876', 422748663,'2004-1-27',28663),

(24250, 'Lisa',   'Mumbai',108,58,'650.507.9811',   422611945,'2005-2-20',31945),

(26270, 'Karen','Ngapur',109,59,'650.507.9822', 422475227,'2006-6-24',35227),

(28290, 'Valli','pune',   110,60, '650.507.9833', 422338509,'2007-2-7', 38509),

(30310, 'Joshua','Mumbai',111,61,'650.507.9844',422201791,'2008-1-13',41791),

(32330, 'Randall','delhi',112,62,'515.123.4444',422065073,'2003-9-17',45073),

(34350, 'Hazel','Ngapur',113,63,'515.123.5555', 421928355,'2004-2-17',48355),

(36370,'Luis','pune',114,64,'603.123.6666',   421791637,'2005-8-17',51637),

(38390, 'Trenna','Mumbai',115,65,   '515.123.7777', 421654919,'2002-6-2',54919),

(40410, 'Den','Ngapur',116,66,'515.123.8888',421518201,   '2002-6-7',   58201),

(42430, 'Michael','pune',117,67,'515.123.8080', 421381483,'2002-6-7',61483),

(44450, 'John',   'Mumbai',118,68,'011.44.1346.329268',421244765,   '2002-6-7',   64765),

(46470, 'Nandita',   'delhi',119,69, '011.44.1346.529268',421108047,   '2008-4-21',68047),

(48490, 'Ismael','Pune',120,70, '011.44.1346.52',420971329,   '2005-3-11',71329);

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

SELECT * FROM Employees

WHERE Employee_id = 52

AND Department_id IN (SELECT Department_id FROM BANK_DETAILS WHERE Branch_name = 'ICIC_P');

Employee_id	First_name	Department_id	Manager_id	Job_id	Email	Hire_Date	Phone_no	Salary
52	Irene	11	22	ST_CLERK	SSTILES	04-03-2004	650.505.3876	2900

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

SELECT COUNT(e.Employee_id) AS Num_Employees, at.Opening_Date, bd.Address

FROM Employees AS e

INNER JOIN Department AS d ON e.Department_id = d.Department_id

INNER JOIN Account_type AS at ON d.Account_no = at.Account_no

INNER JOIN Bank_Details AS bd ON d.Department_id = bd.Department_id

WHERE d.Department_name = 'Loan'

GROUP BY at.Opening_Date, bd.Address;

Num_Employees	Opening_Date	Address
4	24-05-2004	pune
4	24-05-2004	Mumbai
4	24-05-2004	Ngapur

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

SELECT d.Department_name, bd.Address, bd.Branch_code, d.Department_id, c.City

FROM Customer AS c

INNER JOIN Department AS d ON c.Employee_id = d.Employee_id

INNER JOIN Bank_Details AS bd ON d.Department_id = bd.Department_id

WHERE c.Account_no = 18190;

Department_name	Address	Branch_code	Departme	City
Security	Pune	120	21	delhi

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

select department.department_id,department.department_name, job_details.job_id

from department

inner join account_type on department.department_name = account_type.department_name

inner join job_details on department.department_id = job_details.department_id

where department.department_name = 'loan' or department.department_name = 'hr' or department.department_name = 'admin';

department_id	department_name	job_id
11	HR	FI_ACCOUNT
8	Loan	ST_MAN
11	HR	FI_ACCOUNT
8	Loan	ST_MAN
11	HR	FI_ACCOUNT
8	Loan	ST_MAN
11	HR	FI_ACCOUNT
8	Loan	ST_MAN

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

SELECT at.Type_Account, bd.State, c.Account_No

FROM Account_type AS at

INNER JOIN Department AS d ON at.Account_no = d.Account_no

INNER JOIN Bank_Details AS bd ON d.Department_id = bd.Department_id

INNER JOIN Customer AS c ON bd.Branch_code = c.Branch_code

WHERE c.ATM_NO = 422748663;

Type_Account	State	Account_No
loan	Maharashtra	22230

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

CREATE VIEW View_BankDetails AS

SELECT bd.Address, bd.Branch_name, d.Department_name, e.First_name, e.Phone_no

FROM Employees AS e

INNER JOIN Department AS d ON e.Department_id = d.Department_id

INNER JOIN Bank_Details AS bd ON d.Department_id = bd.Department_id;

SELECT * FROM View_BankDetails;

Address	Branch_na	Departme	First_nam	Phone_no
Ngapur	ICIC_N	Account	Samuel	650.505.1876
pune	ICIC_P	Account	Samuel	650.505.1876
Mumbai	ICIC_M	Account	Samuel	650.505.1876
delhi	ICIC_D	Account	Samuel	650.505.1876
Mumbai	ICIC_M	Account	Samuel	650.505.1876
delhi	ICIC_D	Account	Samuel	650.505.1876
Ngapur	ICIC_N	Account	Samuel	650.505.1876
Ngapur	ICIC_N	Account	Christophe	650.501.3876
pune	ICIC_P	Account	Christophe	650.501.3876
Mumbai	ICIC_M	Account	Christophe	650.501.3876
delhi	ICIC_D	Account	Christophe	650.501.3876
Mumbai	ICIC_M	Account	Christophe	650.501.3876
delhi	ICIC_D	Account	Christophe	650.501.3876
Ngapur	ICIC_N	Account	Christophe	650.501.3876
Ngapur	ICIC_N	Account	Randall	515.123.4444
pune	ICIC_P	Account	Randall	515.123.4444
Mumbai	ICIC_M	Account	Randall	515.123.4444
delhi	ICIC_D	Account	Randall	515.123.4444
Mumbai	ICIC_M	Account	Randall	515.123.4444
delhi	ICIC_D	Account	Randall	515.123.4444
Ngapur	ICIC_N	Account	Randall	515.123.4444
Ngapur	ICIC_N	Account	John	011.44.1346.329268
pune	ICIC_P	Account	John	011.44.1346.329268
Mumbai	ICIC_M	Account	John	011.44.1346.329268

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

CREATE VIEW View_OpeningDates AS

SELECT c.City, d.Department_name

FROM Department AS d

INNER JOIN Employees AS e ON d.Employee_id = e.Employee_id

INNER JOIN Customer AS c ON e.Employee_id = c.Employee_id

INNER JOIN Account_type AS at ON d.Account_no = at.Account_no

WHERE at.Opening_Date < '2004-05-24';

SELECT * FROM View_OpeningDates;

City	Department_name
Ngapur	Account
delhi	Admin

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

CREATE VIEW employee_job_details AS

SELECT e.Employee_id, e.First_name, e.Department_id, d.Department_name, e.Manager_id, e.Job_id, e.Email, e.Hire_Date, e.Phone_no, e.Salary

FROM Employees AS e

INNER JOIN Department AS d ON e.Department_id = d.Department_id

WHERE e.Job_id IN ('ST_CLERK', 'ST_MAN', 'FI_ACCOUNT');

SELECT * FROM employee_job_details;

Employee_id	First_name	Department_id	Department_name	Manager_id	Job_id	Email	Hire_Date	Phone_no	Salary
50	Samuel	1	Account	20	ST_CLERK	SMCCAIN	23-11-2007	650.505.1:	3800
56	Christopher	1	Account	26	ST_CLERK	TGATES	03-11-2006	650.501.3:	3200
62	Randall	1	Account	32	FI_ACCOU	WSMITH	10-10-2005	515.123.4.	6200
51	Allan	8	Loan	21	ST_CLERK	SSEWALL	30-01-2004	650.505.2:	3600
57	TJ	8	Loan	27	ST_MAN	TJOLSON	11-11-2005	650.501.4:	2800
63	Hazel	8	Loan	33	FI_ACCOU	WTAYLOR	16-11-2007	515.123.5!	11500
52	Irene	11	HR	22	ST_CLERK	SSTILES	04-03-2004	650.505.3:	2900
58	Lisa	11	HR	28	ST_MAN	TRAJS	19-03-2007	650.507.9:	3100
64	Luis	11	HR	34	FI_ACCOU	JNAYER	16-07-2005	603.123.6(	10000
53	Kevin	16	Admin	23	ST_CLERK	STOBIAS	01-08-2004	650.505.4:	2500
59	Karen	16	Admin	29	ST_MAN	VJONES	24-01-2008	650.507.9:	3000
65	Trenna	16	Admin	35	FI_ACCOU	JPATEL	28-09-2006	515.123.7:	9600
54	Julia	19	Sales	24	ST_CLERK	SVOLLMAI	10-03-2005	650.501.1:	4000
60	Valli	19	Sales	30	ST_MAN	VPATABAL	23-02-2008	650.507.9:	2600
66	Den	19	Sales	36	FI_ACCOU	JRUSSEL	14-01-2007	515.123.8:	7400
55	Donald	21	Security	25	ST_CLERK	TFOX	15-12-2005	650.501.2:	3900
61	Joshua	21	Security	31	ST_MAN	WGIETZ	01-05-2003	650.507.9:	6400

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

UPDATE Customer SET Pin_No = 42321992 WHERE ATM_NO = 423295535;

SELECT ATM_NO, Pin_No FROM Customer WHERE ATM_NO = 423295535;

ATM_NO	Pin_No
423295535	15535

-- In the job, details change all sales account into admin and account type into saving --

SET SQL_SAFE_UPDATES = 0;

UPDATE Department SET Department_name = 'Admin' WHERE Department_name = 'Sales';

UPDATE Account_type SET Type_Account = 'Saving' WHERE Type_Account = 'loan';

SELECT Department_id, Department_name FROM Department WHERE Department_name = 'Admin';

Department_id	Department_name
16	Admin

SELECT Account_no, Type_Account FROM Account_type WHERE Type_Account = 'Saving';

Account_no	Type_Account
10112	Saving
12345	Saving
22230	Saving
32330	Saving
44450	Saving
48490	Saving