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PRN :-10303320181124510025

BRANCH :- 3rd YEAR (COMPUTER ENGINEERING)

SUBJECT :- DBMS (ASSIGNMENT 2)

CREATE BANK TABLES:-

```
MySQL 8.0 Command Line Client - Unicode
Enter password: *****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 34
Server version: 8.0.22 MySQL Community Server - GPL

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> create database bank;
Query OK, 1 row affected (0.01 sec)

mysql> use bank;
Database changed
mysql> CREATE TABLE customer
-> (
->   custid VARCHAR(6),
->   fname  VARCHAR(30),
->   mname  VARCHAR(30),
->   lname  VARCHAR(30),
->   city   VARCHAR(15),
->   mobileno VARCHAR(10),
->   occupation VARCHAR(10),
->   dob DATE
-> );
Query OK, 0 rows affected (0.08 sec)

mysql> CREATE TABLE branch
-> (
->   bid VARCHAR(6),
->   bname VARCHAR(30),
->   bcity VARCHAR(30)
-> );
Query OK, 0 rows affected (0.05 sec)

mysql> CREATE TABLE account
-> (
->   acnumber VARCHAR(6),
->   custid VARCHAR(6),
->   AC
mysql> CREATE TABLE account
->   acnumber VARCHAR(6),
->   custid VARCHAR(6),
->   opening_balance INT(7),
->   aod DATE,
->   atype VARCHAR(10),
->   astatus VARCHAR(10)
-> );
Query OK, 0 rows affected, 1 warning (0.06 sec)

mysql> CREATE TABLE trandetials
-> (
->   tnumber VARCHAR(6),
->   acnumber VARCHAR(6),
->   dot DATE,
->   medium_of_transaction VARCHAR(20),
->   transaction_type VARCHAR(20),
->   transaction_amount INT(7)
-> );
Query OK, 0 rows affected, 1 warning (0.07 sec)

mysql> CREATE TABLE loan
-> (
->   custid VARCHAR(6),
->   bid VARCHAR(6),
->   loan_amount INT(7)
-> );
Query OK, 0 rows affected, 1 warning (0.05 sec)
```

RENAME BANK TABLE:-

```
MySQL 8.0 Command Line Client - Unicode
mysql> CREATE TABLE account
-> (
->   acnumber VARCHAR(6),
->   custid VARCHAR(6),
->   opening_balance INT(7),
->   aod DATE,
->   atype VARCHAR(10),
->   astatus VARCHAR(10)
-> );
Query OK, 0 rows affected, 1 warning (0.06 sec)

mysql> CREATE TABLE trandetials
-> (
->   tnumber VARCHAR(6),
->   acnumber VARCHAR(6),
->   dot DATE,
->   medium_of_transaction VARCHAR(20),
->   transaction_type VARCHAR(20),
->   transaction_amount INT(7)
-> );
Query OK, 0 rows affected, 1 warning (0.07 sec)

mysql> CREATE TABLE loan
-> (
->   custid VARCHAR(6),
->   bid VARCHAR(6),
->   loan_amount INT(7)
-> );
Query OK, 0 rows affected, 1 warning (0.05 sec)

mysql> RENAME TABLE customer TO Customer_Details;
Query OK, 0 rows affected (0.04 sec)

mysql> RENAME TABLE branch TO Branch_Details;
Query OK, 0 rows affected (0.04 sec)

mysql> RENAME TABLE account TO Account_Details;
Query OK, 0 rows affected (0.03 sec)

mysql> RENAME TABLE trandetials TO Transaction_Details;
Query OK, 0 rows affected (0.03 sec)

mysql> RENAME TABLE loan TO Loan_Details;
Query OK, 0 rows affected (0.03 sec)

mysql> _
```

DATA CONSTRIANTS:-

```
MySQL 8.0 Command Line Client - Unicode

mysql> RENAME TABLE account TO Account_Details;
Query OK, 0 rows affected (0.04 sec)

mysql> RENAME TABLE trandetials TO Transaction_Details;
Query OK, 0 rows affected (0.03 sec)

mysql> RENAME TABLE loan TO Loan_Details;
Query OK, 0 rows affected (0.04 sec)

mysql> ALTER TABLE Account_Details ADD CONSTRAINT account_acnumber_pk PRIMARY KEY(acnumber);
Query OK, 0 rows affected (0.07 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> ALTER TABLE Customer_Details ADD CONSTRAINT customer_custid_pk PRIMARY KEY(custid);
Query OK, 0 rows affected (0.09 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> ALTER TABLE Account_Details ADD CONSTRAINT account_custid_fk FOREIGN KEY(custid) REFERENCES Customer_Details(custid);
Query OK, 0 rows affected (0.10 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> ALTER TABLE Branch_Details ADD CONSTRAINT branch_bid_pk PRIMARY KEY(bid);
Query OK, 0 rows affected (0.07 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> ALTER TABLE Account_Details ADD CONSTRAINT account_bid_fk FOREIGN KEY(bid) REFERENCES Branch_Details(bid);
Query OK, 0 rows affected (0.11 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> ALTER TABLE Loan_Details ADD CONSTRAINT loan_customer_bid_pk PRIMARY KEY(custid,bid);
Query OK, 0 rows affected (0.11 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> ALTER TABLE Loan_Details ADD CONSTRAINT loan_custid_fk FOREIGN KEY(custid) REFERENCES Customer_Details(custid);
Query OK, 0 rows affected (0.09 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> ALTER TABLE Loan_Details ADD CONSTRAINT loan_bid_fk FOREIGN KEY(custid) REFERENCES Branch_Details(bid);
Query OK, 0 rows affected (0.07 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> ALTER TABLE Transaction_Details ADD CONSTRAINT trandetials_tnumber_pk PRIMARY KEY(tnumber);
Query OK, 0 rows affected (0.08 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> ALTER TABLE Transaction_Details ADD CONSTRAINT trandetials_acnumber_fk FOREIGN KEY(acnumber) REFERENCES Account_Details(acnumber);
Query OK, 0 rows affected (0.09 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

DATA INSERTION

1) CUSTOMER DETAILS

```
mysql> INSERT INTO Customer_Details VALUES('C00001','Ramesh','Chandra','Sharma','Delhi','9543198345','Service','1976-12-06');
Query OK, 1 row affected (0.40 sec)

mysql> INSERT INTO Customer_Details VALUES('C00002','Avinash','Sunder','Minha','Delhi','9876532109','Service','1974-10-16');
Query OK, 1 row affected (0.34 sec)

mysql> INSERT INTO Customer_Details VALUES('C00003','Rahul',null,'Rastogi','Delhi','9765178901','Student','1981-09-26');
Query OK, 1 row affected (0.10 sec)

mysql> INSERT INTO Customer_Details VALUES('C00004','Parul',null,'Gandhi','Delhi','9876532109','Housewife','1976-11-03');
Query OK, 1 row affected (0.08 sec)

mysql> INSERT INTO Customer_Details VALUES('C00005','Naveen','Chandra','Aedekar','Mumbai','8976523190','Service','1976-09-19');
Query OK, 1 row affected (0.10 sec)

mysql> INSERT INTO Customer_Details VALUES('C00006','Chitresh',null,'Barwe','Mumbai','7651298321','Student','1992-11-06');
Query OK, 1 row affected (0.11 sec)

mysql> INSERT INTO Customer_Details VALUES('C00007','Amit','Kumar','Borkar','Mumbai','9875189761','Student','1981-09-06');
Query OK, 1 row affected (0.11 sec)

mysql> INSERT INTO Customer_Details VALUES('C00008','Nisha',null,'Damle','Mumbai','7954198761','Service','1975-12-03');
Query OK, 1 row affected (0.14 sec)

mysql> INSERT INTO Customer_Details VALUES('C00009','Abhishek',null,'Dutta','Kolkata','9856198761','Service','1973-05-22');
Query OK, 1 row affected (0.11 sec)

mysql> INSERT INTO Customer_Details VALUES('C00010','Shankar',null,'Nair','Chennai','8765489076','Service','1976-07-12');
Query OK, 1 row affected (0.09 sec)
```

```
mysql> SELECT * FROM Customer_Details;
+-----+-----+-----+-----+-----+-----+-----+-----+
| custid | fname | mname | lname | city | mobileno | occupation | dob |
+-----+-----+-----+-----+-----+-----+-----+-----+
| C00001 | Ramesh | Chandra | Sharma | Delhi | 9543198345 | Service | 1976-12-06 |
| C00002 | Avinash | Sunder | Minha | Delhi | 9876532109 | Service | 1974-10-16 |
| C00003 | Rahul | NULL | Rastogi | Delhi | 9765178901 | Student | 1981-09-26 |
| C00004 | Parul | NULL | Gandhi | Delhi | 9876532109 | Housewife | 1976-11-03 |
| C00005 | Naveen | Chandra | Aedekar | Mumbai | 8976523190 | Service | 1976-09-19 |
| C00006 | Chitresh | NULL | Barwe | Mumbai | 7651298321 | Student | 1992-11-06 |
| C00007 | Amit | Kumar | Borkar | Mumbai | 9875189761 | Student | 1981-09-06 |
| C00008 | Nisha | NULL | Damle | Mumbai | 7954198761 | Service | 1975-12-03 |
| C00009 | Abhishek | NULL | Dutta | Kolkata | 9856198761 | Service | 1973-05-22 |
| C00010 | Shankar | NULL | Nair | Chennai | 8765489076 | Service | 1976-07-12 |
+-----+-----+-----+-----+-----+-----+-----+-----+
10 rows in set (0.03 sec)
```

2) BRANCH DETAILS

```
mysql> INSERT INTO Branch_Details VALUES('B00001','Asaf ali road','Delhi');
Query OK, 1 row affected (0.11 sec)

mysql> INSERT INTO Branch_Details VALUES('B00002','New delhi main branch','Delhi');
Query OK, 1 row affected (0.27 sec)

mysql> INSERT INTO Branch_Details VALUES('B00003','Delhi cantt','Delhi');
Query OK, 1 row affected (0.06 sec)

mysql> INSERT INTO Branch_Details VALUES('B00004','Jasola','Delhi');
Query OK, 1 row affected (0.13 sec)

mysql> INSERT INTO Branch_Details VALUES('B00005','Mahim','Mumbai');
Query OK, 1 row affected (0.07 sec)

mysql> INSERT INTO Branch_Details VALUES('B00006','Vile parle','Mumbai');
Query OK, 1 row affected (0.10 sec)

mysql> INSERT INTO Branch_Details VALUES('B00007','Mandvi','Mumbai');
Query OK, 1 row affected (0.10 sec)

mysql> INSERT INTO Branch_Details VALUES('B00008','Jadavpur','Kolkata');
Query OK, 1 row affected (0.07 sec)

mysql> INSERT INTO Branch_Details VALUES('B00009','Kodambakkam','Chennai');
Query OK, 1 row affected (0.05 sec)
```

```
mysql> SELECT * FROM Branch_Details;
+-----+-----+-----+
| bid   | bname                | bcity  |
+-----+-----+-----+
| B00001 | Asaf ali road        | Delhi  |
| B00002 | New delhi main branch | Delhi  |
| B00003 | Delhi cantt          | Delhi  |
| B00004 | Jasola               | Delhi  |
| B00005 | Mahim                | Mumbai |
| B00006 | Vile parle           | Mumbai |
| B00007 | Mandvi               | Mumbai |
| B00008 | Jadavpur              | Kolkata |
| B00009 | Kodambakkam          | Chennai |
+-----+-----+-----+
9 rows in set (0.00 sec)
```


3) ACCOUNT DETAILS

```
mysql> INSERT INTO Account_Details VALUES('A00001','C00001','B00001',1000,'2012-12-15','Saving','Active');
Query OK, 1 row affected (0.10 sec)

mysql> INSERT INTO Account_Details VALUES('A00002','C00002','B00001',1000,'2012-06-12','Saving','Active');
Query OK, 1 row affected (0.14 sec)

mysql> INSERT INTO Account_Details VALUES('A00003','C00003','B00002',1000,'2012-05-17','Saving','Active');
Query OK, 1 row affected (0.10 sec)

mysql> INSERT INTO Account_Details VALUES('A00004','C00002','B00005',1000,'2013-01-27','Saving','Active');
Query OK, 1 row affected (0.11 sec)

mysql> INSERT INTO Account_Details VALUES('A00005','C00006','B00006',1000,'2012-12-17','Saving','Active');
Query OK, 1 row affected (0.10 sec)

mysql> INSERT INTO Account_Details VALUES('A00006','C00007','B00007',1000,'2010-08-12','Saving','Suspended');
Query OK, 1 row affected (0.11 sec)

mysql> INSERT INTO Account_Details VALUES('A00007','C00007','B00001',1000,'2012-10-02','Saving','Active');
Query OK, 1 row affected (0.27 sec)

mysql> INSERT INTO Account_Details VALUES('A00008','C00001','B00003',1000,'2009-11-09','Saving','Terminated');
Query OK, 1 row affected (0.26 sec)

mysql> INSERT INTO Account_Details VALUES('A00009','C00003','B00007',1000,'2008-11-30','Saving','Terminated');
Query OK, 1 row affected (0.10 sec)

mysql> INSERT INTO Account_Details VALUES('A00010','C00004','B00002',1000,'2013-03-01','Saving','Active');
Query OK, 1 row affected (0.11 sec)
```

```
mysql> SELECT * FROM Account_Details;
+-----+-----+-----+-----+-----+-----+-----+
| acnumber | custid | bid   | opening_balance | aod       | atype  | astatus |
+-----+-----+-----+-----+-----+-----+-----+
| A00001   | C00001 | B00001 | 1000            | 2012-12-15 | Saving | Active  |
| A00002   | C00002 | B00001 | 1000            | 2012-06-12 | Saving | Active  |
| A00003   | C00003 | B00002 | 1000            | 2012-05-17 | Saving | Active  |
| A00004   | C00002 | B00005 | 1000            | 2013-01-27 | Saving | Active  |
| A00005   | C00006 | B00006 | 1000            | 2012-12-17 | Saving | Active  |
| A00006   | C00007 | B00007 | 1000            | 2010-08-12 | Saving | Suspended |
| A00007   | C00007 | B00001 | 1000            | 2012-10-02 | Saving | Active  |
| A00008   | C00001 | B00003 | 1000            | 2009-11-09 | Saving | Terminated |
| A00009   | C00003 | B00007 | 1000            | 2008-11-30 | Saving | Terminated |
| A00010   | C00004 | B00002 | 1000            | 2013-03-01 | Saving | Active  |
+-----+-----+-----+-----+-----+-----+-----+
10 rows in set (0.01 sec)
```

4) TRANSACTION DETAILS

```
mysql> INSERT INTO Transaction_Details VALUES('T00001','A00001','2013-01-01','Cheque','Deposit',2000);
Query OK, 1 row affected (0.08 sec)

mysql> INSERT INTO Transaction_Details VALUES('T00002','A00001','2013-02-01','Cash','Withdrawal',1000);
Query OK, 1 row affected (0.12 sec)

mysql> INSERT INTO Transaction_Details VALUES('T00003','A00002','2013-01-01','Cash','Deposit',2000);
Query OK, 1 row affected (0.21 sec)

mysql> INSERT INTO Transaction_Details VALUES('T00004','A00002','2013-02-01','Cash','Deposit',3000);
Query OK, 1 row affected (0.23 sec)

mysql> INSERT INTO Transaction_Details VALUES('T00005','A00007','2013-01-11','Cash','Deposit',7000);
Query OK, 1 row affected (0.13 sec)

mysql> INSERT INTO Transaction_Details VALUES('T00006','A00007','2013-01-13','Cash','Deposit',9000);
Query OK, 1 row affected (0.14 sec)

mysql> INSERT INTO Transaction_Details VALUES('T00007','A00001','2013-03-13','Cash','Deposit',4000);
Query OK, 1 row affected (0.09 sec)

mysql> INSERT INTO Transaction_Details VALUES('T00008','A00001','2013-03-14','Cheque','Deposit',3000);
Query OK, 1 row affected (0.13 sec)

mysql> INSERT INTO Transaction_Details VALUES('T00009','A00001','2013-03-21','Cash','Withdrawal',9000);
Query OK, 1 row affected (0.10 sec)

mysql> INSERT INTO Transaction_Details VALUES('T00010','A00001','2013-03-22','Cash','Withdrawal',2000);
Query OK, 1 row affected (0.07 sec)

mysql> INSERT INTO Transaction_Details VALUES('T00011','A00002','2013-03-25','Cash','Withdrawal',7000);
Query OK, 1 row affected (0.13 sec)

mysql> INSERT INTO Transaction_Details VALUES('T00012','A00007','2013-03-26','Cash','Withdrawal',2000);
Query OK, 1 row affected (0.08 sec)
```

```
mysql> SELECT * FROM Transaction_Details;
+-----+-----+-----+-----+-----+-----+
| tnumber | acnumber | dot | medium_of_transaction | transaction_type | transaction_amount |
+-----+-----+-----+-----+-----+-----+
| T00001 | A00001 | 2013-01-01 | Cheque | Deposit | 2000 |
| T00002 | A00001 | 2013-02-01 | Cash | Withdrawal | 1000 |
| T00003 | A00002 | 2013-01-01 | Cash | Deposit | 2000 |
| T00004 | A00002 | 2013-02-01 | Cash | Deposit | 3000 |
| T00005 | A00007 | 2013-01-11 | Cash | Deposit | 7000 |
| T00006 | A00007 | 2013-01-13 | Cash | Deposit | 9000 |
| T00007 | A00001 | 2013-03-13 | Cash | Deposit | 4000 |
| T00008 | A00001 | 2013-03-14 | Cheque | Deposit | 3000 |
| T00009 | A00001 | 2013-03-21 | Cash | Withdrawal | 9000 |
| T00010 | A00001 | 2013-03-22 | Cash | Withdrawal | 2000 |
| T00011 | A00002 | 2013-03-25 | Cash | Withdrawal | 7000 |
| T00012 | A00007 | 2013-03-26 | Cash | Withdrawal | 2000 |
+-----+-----+-----+-----+-----+-----+
12 rows in set (0.00 sec)
```


5) LOAN DETAILS

```
mysql> INSERT INTO Loan_Details VALUES('C00001','B00001',100000);
Query OK, 1 row affected (0.14 sec)

mysql> INSERT INTO Loan_Details VALUES('C00002','B00002',200000);
Query OK, 1 row affected (0.14 sec)

mysql> INSERT INTO Loan_Details VALUES('C00009','B00008',400000);
Query OK, 1 row affected (0.14 sec)

mysql> INSERT INTO Loan_Details VALUES('C00010','B00009',500000);
Query OK, 1 row affected (0.09 sec)

mysql> INSERT INTO Loan_Details VALUES('C00001','B00003',600000);
Query OK, 1 row affected (0.11 sec)

mysql> INSERT INTO Loan_Details VALUES('C00002','B00001',600000);
Query OK, 1 row affected (0.09 sec)
```

```
mysql> SELECT * FROM Loan_Details;
+-----+-----+-----+
| custid | bid    | loan_amount |
+-----+-----+-----+
| C00001 | B00001 |      100000 |
| C00001 | B00003 |      600000 |
| C00002 | B00001 |      600000 |
| C00002 | B00002 |      200000 |
| C00009 | B00008 |      400000 |
| C00010 | B00009 |      500000 |
+-----+-----+-----+
6 rows in set (0.00 sec)
```