

WEEK-4 DBMS LAB

Consider the following database for a banking enterprise.

BRANCH (branch-name: String, branch-city: String, assets: real)

ACCOUNTS (accno: int, branch-name: String, balance: real)

DEPOSITOR (customer-name: String, customer-street: String, customer-city: String)

LOAN (loan-number: int, branch-name: String, amount: real)

BORROWER (customer-name: String, loan-number: int)

- i. Create the above tables by properly specifying the primary keys and the foreign keys.
- ii. Enter at least five tuples for each relation.
- iii. Find all the customers who have at least two accounts at the *Main* branch.
- iv. Find all the customers who have an account at *all* the branches located in a specific city.
- v. Demonstrate how you delete all account tuples at every branch located in a specific city.
- vi. Generate suitable reports.
- vii. Create suitable front end for querying and displaying the results.

OUTPUT:

- i. Create the above tables by properly specifying the primary keys and the foreign keys.
- ii. Enter at least five tuples for each relation.

Query 1 Insurance_DB ORDERS_DB bank_db student_db

Limit to 1000 rows

```
80 ("Ravi",002),
81 ("Arpita",003),
82 ("Shyam",004),
83 ("Vinay",005);
84
85 • select*from accounts;
```

Result Grid

	accno	branch_name	balance
▶	1001	A	10000
	1002	B	5000
	1003	C	7500
	1004	D	50000
	1005	D	75000
	1006	E	560
	1007	B	500
	1008	B	1500
•	NULL	NULL	NULL

Query 1 Insurance_DB ORDERS_DB bank_db student_db

Limit to 1000 rows

```
83 ("Vinay",005);
84
85 • select*from accounts;
86 • select*from borrower;
87 • select*from branch;
88 • select*from customer;
```

Result Grid

	customer_name	loan_number
▶	Arpita	1
	Ravi	2
	Arpita	3
	Shyam	4
	Vinay	5
•	NULL	NULL

Query 1 Insurance_DB ORDERS_DB bank_db x student_db

Limit to 1000 rows

```

83      ("Vinay",005);
84
85 •   select*from accounts;
86 •   select*from borrower;
87 •   select*from branch;
88 •   select*from customer;

```

Result Grid

	branch_name	branch_city	assets
▶	A	Bangalore	190000
	B	Bangalore	200000
	C	Delhi	235344
	D	Chennai	1050560
	E	Chennai	678909
*	NULL	NULL	NULL

Query 1 Insurance_DB ORDERS_DB bank_db x student_db

Limit to 1000 rows

```

83      ("Vinay",005);
84
85 •   select*from accounts;
86 •   select*from borrower;
87 •   select*from branch;
88 •   select*from customer;

```

Result Grid

	customer_name	customer_street	customer_city
▶	Arpita	Church Street	Bangalore
	Ravi	Dasarahalli	Bangalore
	Seema	Vasantnagar	Chennai
	Shyam	Indiranagar	Delhi
	Vinay	MG Road	Chennai
*	NULL	NULL	NULL

Query 1 Insurance_DB ORDERS_DB **bank_db** × student_db

Limit to 1000 rows

```

86 • select*from borrower;
87 • select*from branch;
88 • select*from customer;
89 • select*from depositor;
90 • select*from loan;
91 • /* Find all the customers who have at least two accounts at

```

Result Grid

customer_name	accno
Ravi	1001
Ravi	1002
Shyam	1003
Seema	1004
Seema	1005
Arpita	1006
Vinay	1007
Vinay	1008
NULL	NULL

Query 1 Insurance_DB ORDERS_DB **bank_db** × student_db

Limit to 1000 rows

```

86 • select*from borrower;
87 • select*from branch;
88 • select*from customer;
89 • select*from depositor;
90 • select*from loan;
91 • /* Find all the customers who have at least two accounts at

```

Result Grid

loan_number	branch_name	amount
1	A	10000
2	B	25000
3	B	250000
4	C	5000
5	E	90000
NULL	NULL	NULL

iii. Find all the customers who have at least two accounts at the *Main* branch.

Query 1 Insurance_DB ORDERS_DB bank_db x student_db

Limit to 1000 rows

```
92  the Main branch.*/
93  • select d.customer_name from depositor d,accounts a where d.accno=a.accno and a.branch_name = "D"
94                                     group by d.customer_name having count(d.customer_name) >=2;
95
96  /*iv. Find all the customers who have an account at all the branches located in a specific city.*/
97  • select customer_name from depositor
98  ...
```

Result Grid

customer_name
Seema

iv. Find all the customers who have an account at *all* the branches located in a specific city.

Query 1 Insurance_DB ORDERS_DB bank_db x student_db

Limit to 1000 rows

```
95
96 /*iv. Find all the customers who have an account at all the branches located in a specific city
97 • select customer_name from depositor
98 join accounts on accounts.accno = depositor.accno
99 join branch on branch.branch_name = accounts.branch_name
100 where branch.branch_city = "Bangalore"
101 GROUP BY depositor.customer_name
102 having count(DISTINCT branch.branch_name) = (SELECT COUNT(branch_name)
103 FROM branch
104 WHERE branch_city = 'Bangalore');
105
```

<

Result Grid

	customer_name
▶	Ravi

v. Demonstrate how you delete all account tuples at every branch located in a specific city.

Query 1 Insurance_DB ORDERS_DB bank_db x student_db

Limit to 1000 rows

```
104 WHERE branch_city = 'Bangalore');
105
106 /* v) Demonstrate how you delete all account tuples at every
107    branch located in a specific city.*/
108 • delete from accounts where branch_name in
109    (select branch_name from branch where branch_city="Delhi");
110 • select * from accounts;
111
112
113
114
```

Result Grid

	accno	branch_name	balance
	1003	C	7500
	1004	D	50000
	1005	D	75000
	1006	E	560
	1007	B	500
	1008	B	1500
*	NULL	NULL	NULL

*******LAB-4 ENDS*******