Rachid Bodson Assignment 3

Report

Question 1: Retrieve all the distinct cities in the branch relation.

Sql query

```
SELECT  distinct branch_city
FROM branch;
```

Output:

branch_city
Atlanta
Boston
Detroit
Minneapolis
Pittsburgh

Question 2: Give full details of all the customers.

Sql query

```
SELECT *
FROM Customer;
```

Output:

customer_name	customer_stre...	customer_city
Adams	Spring	Oklahoma
Brooks	Broad	Atlanta
Curry	North	Detroit
Glenn	Sand Hill	Charlotte
Green	Lavista	Madison
Hayes	Main	Louisville
Johnson	Buford	Pittsburgh
Jones	Main	Louisville
Lindsay	Park	Oklahoma
Smith	North	Detroit
Turner	Browns	Madison
Williams	Cascade	Portland

Question 3: Find the account numbers of those balances where the balance is greater than

40000.

Sql query

```
SELECT account_number
FROM account
WHERE balance > 40000;
```

Output:

account_numb...
A-101
A-201
A-215
A-217
A-222

Question 4: Retrieve the customer names and streets of those customer names that start with

'G'.

Sql query

```
SELECT customer_name, customer_street
FROM customer
WHERE customer_name like "G%";
```

Output:

customer_name	customer_stre...
Glenn	Sand Hill
Green	Lavista

Question 5: Get the names of branches those are either located in 'Boston' or in 'Pittsburgh'.

Sql query

```
SELECT branch_name
FROM branch
WHERE branch_city = "boston" or branch_city = "pittsburgh";
```

Output:

branch_name
South End
Exeter Plaza
North End
Water Front

Question 6: Find the names of branches of those assets are between 200000 and 700000.

Sql query

```
SELECT branch_name
FROM branch
WHERE assets between 200000 and 700000;
```

Output:

branch_name
South End
Edina

Question 7: Get the account numbers and branch numbers in the descending order of the balance.

Sql query

```
SELECT account_number, branch_number
FROM account
ORDER BY balance desc;
```

Output:

account_numb...	branch_number
A-201	B-101
A-217	B-101
A-215	B-201
A-222	B-501
A-101	B-102
A-102	B-202
A-305	B-203

Question 8: Retrieve all the details in loan relation with 15% rise in its amount. Rename amount

column with new_amount.

Sql query

```
SELECT loan_number,branch_number,amount*1.15 AS new_amount
FROM loan;
```

Output:

loan_number	branch_number	new_amount
L-11	B-203	103500.0000
L-14	B-102	172500.0000
L-15	B-202	172500.0000
L-16	B-202	149500.0000
L-17	B-102	115000.0000
L-23	B-501	230000.0000
L-93	B-201	57500.0000

Question 9: Find the total number of customers.

Sql query

```
SELECT count(*)
FROM customer;
```

Output:

count(*)
12

Question 10: Find the maximum and minimum assets of branches.

Sql query:

```
SELECT max(assets), min(assets)
FROM branch;
```

Output:

	max(assets)	min(assets)
▶	9000000.00	300000.00

Question 11: Find the average assets of branches in 'Atlanta'.

Sql query:

```
SELECT avg(assets)
FROM branch
WHERE branch_city = "Atlanta";
```

Output:

	avg(assets)
▶	8050000.000000

Question 12: For each branch, get the branch number and the total amount (sum) borrowed as

loans.

Sql query:

```
SELECT branch_number, sum(amount)
FROM loan
GROUP BY branch_number;
```

Output:

	branch_number	sum(amount)
▶	B-102	250000.00
	B-201	50000.00
	B-202	280000.00
	B-203	90000.00
	B-501	200000.00

Question 13: For each branch, such that the total amount borrowed is greater than 150000 get the branch number and the minimum amount borrowed.

Sql query:

```
SELECT branch_number, min(amount)
FROM loan
WHERE amount > 150000
GROUP BY branch_number;
```

Output:

branch_number	min(amount)
B-501	200000.00

Question 14: Get the branch number which issue a loan to the customer 'Hayes'.

Sql query:

```
SELECT branch_number
FROM loan AS l, borrower AS b, customer AS c
WHERE b.loan_number = l.loan_number AND b.customer_name = c.customer_name
        AND b.customer_name = "Hayes";
```

Output:

branch_number
B-202

Question 15: Find the total amount of loans borrowed by the customer 'Smith'.

Sql query:

```
SELECT sum(amount)
FROM loan AS l, borrower AS b, customer AS c
WHERE b.loan_number = l.loan_number AND b.customer_name = c.customer_name
        AND b.customer_name = "Smith";
```

Output:

sum(amount)
290000.00

Question 16: Find the balance(s) in the account(s) of the customer who has borrowed the loan L-14.

Sql query:

```
SELECT balance
FROM account AS a, loan AS l
WHERE a.branch_number = l.branch_number AND loan_number = "L-14";
```

Output:

balance
50000.00

Question 17: Get the cities of the customers who have taken more than one loan.

Sql query:

```
SELECT branch_city
FROM branch AS b, loan AS l
WHERE b.branch_number = l.branch_number
GROUP BY branch_city
HAVING count(*) > 1
```

Output:

branch_city
Atlanta
Boston