OLIFANT LT

30503086

Assignment 1

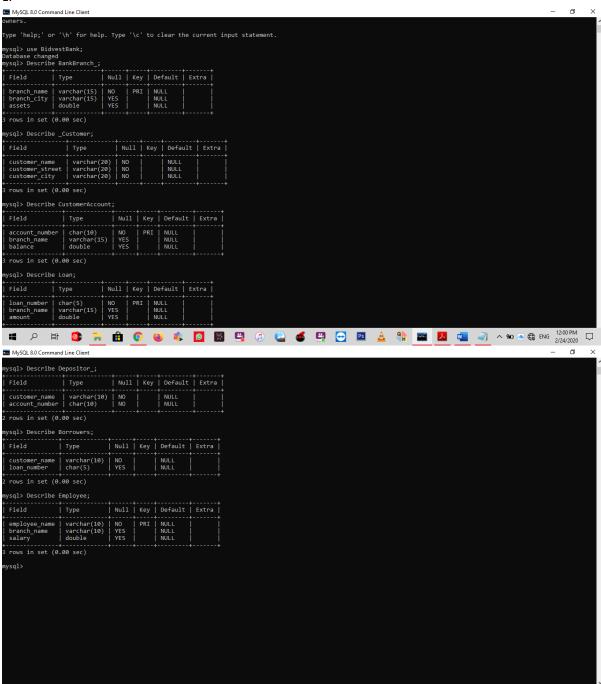CMPG311

Lebohang Tladi
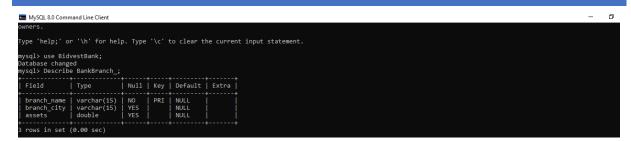
Lebohangtladi789@gmail.com

QUESTION 1
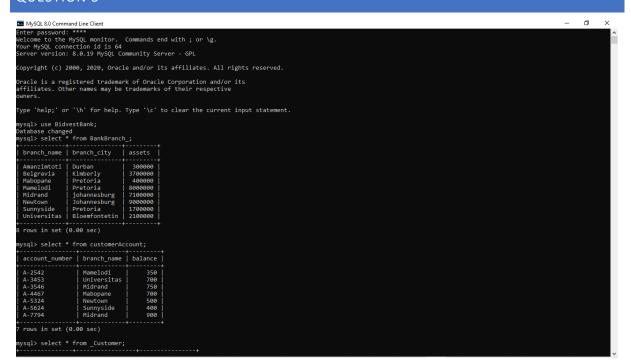
1.

```
MySQL 8.0 Command Line Client                                                    —   □   X

owners.

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

mysql> use BidvestBank;
Database changed
mysql> Describe BankBranch_;
+-------------+-------------+------+-----+---------+-------+
| Field       | Type        | Null | Key | Default | Extra |
+-------------+-------------+------+-----+---------+-------+
| branch_name | varchar(15) | NO   | PRI | NULL    |       |
| branch_city | varchar(15) | YES  |     | NULL    |       |
| assets      | double      | YES  |     | NULL    |       |
+-------------+-------------+------+-----+---------+-------+
3 rows in set (0.00 sec)

mysql> Describe _Customer;
+----------------+-------------+------+-----+---------+-------+
| Field          | Type        | Null | Key | Default | Extra |
+----------------+-------------+------+-----+---------+-------+
| customer_name  | varchar(20) | NO   |     | NULL    |       |
| customer_street| varchar(20) | NO   |     | NULL    |       |
| customer_city  | varchar(20) | NO   |     | NULL    |       |
+----------------+-------------+------+-----+---------+-------+
3 rows in set (0.00 sec)

mysql> Describe CustomerAccount;
+----------------+-------------+------+-----+---------+-------+
| Field          | Type        | Null | Key | Default | Extra |
+----------------+-------------+------+-----+---------+-------+
| account_number | char(10)    | NO   | PRI | NULL    |       |
| branch_name    | varchar(15) | YES  |     | NULL    |       |
| balance        | double      | YES  |     | NULL    |       |
+----------------+-------------+------+-----+---------+-------+
3 rows in set (0.00 sec)

mysql> Describe Loan;
+-------------+-------------+------+-----+---------+-------+
| Field       | Type        | Null | Key | Default | Extra |
+-------------+-------------+------+-----+---------+-------+
| loan_number | char(5)     | NO   | PRI | NULL    |       |
| branch_name | varchar(15) | YES  |     | NULL    |       |
| amount      | double      | YES  |     | NULL    |       |
+-------------+-------------+------+-----+---------+-------+
```

```
MySQL 8.0 Command Line Client                                                    —   □   X

mysql> Describe Depositor_;
+----------------+-------------+------+-----+---------+-------+
| Field          | Type        | Null | Key | Default | Extra |
+----------------+-------------+------+-----+---------+-------+
| customer_name  | varchar(10) | NO   |     | NULL    |       |
| account_number | char(10)    | NO   |     | NULL    |       |
+----------------+-------------+------+-----+---------+-------+
2 rows in set (0.00 sec)

mysql> Describe Borrowers;
+---------------+-------------+------+-----+---------+-------+
| Field         | Type        | Null | Key | Default | Extra |
+---------------+-------------+------+-----+---------+-------+
| customer_name | varchar(10) | NO   |     | NULL    |       |
| loan_number   | char(5)     | YES  |     | NULL    |       |
+---------------+-------------+------+-----+---------+-------+
2 rows in set (0.00 sec)

mysql> Describe Employee;
+---------------+-------------+------+-----+---------+-------+
| Field         | Type        | Null | Key | Default | Extra |
+---------------+-------------+------+-----+---------+-------+
| employee_name | varchar(10) | NO   | PRI | NULL    |       |
| branch_name   | varchar(10) | YES  |     | NULL    |       |
| salary        | double      | YES  |     | NULL    |       |
+---------------+-------------+------+-----+---------+-------+
3 rows in set (0.00 sec)

mysql>
```

QUESTION 2

```
MySQL 8.0 Command Line Client                                                    —   □

owners.

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

mysql> use BidvestBank;
Database changed
mysql> Describe BankBranch_;
+-------------+-------------+------+-----+---------+-------+
| Field       | Type        | Null | Key | Default | Extra |
+-------------+-------------+------+-----+---------+-------+
| branch_name | varchar(15) | NO   | PRI | NULL    |       |
| branch_city | varchar(15) | YES  |     | NULL    |       |
| assets      | double      | YES  |     | NULL    |       |
+-------------+-------------+------+-----+---------+-------+
3 rows in set (0.00 sec)
```

```
mysql> Describe CustomerAccount;
+----------------+-------------+------+-----+---------+-------+
| Field          | Type        | Null | Key | Default | Extra |
+----------------+-------------+------+-----+---------+-------+
| account_number | char(10)    | NO   | PRI | NULL    |       |
| branch_name    | varchar(15) | YES  |     | NULL    |       |
| balance        | double      | YES  |     | NULL    |       |
+----------------+-------------+------+-----+---------+-------+
3 rows in set (0.00 sec)

mysql> Describe Loan;
+-------------+-------------+------+-----+---------+-------+
| Field       | Type        | Null | Key | Default | Extra |
+-------------+-------------+------+-----+---------+-------+
| loan_number | char(5)     | NO   | PRI | NULL    |       |
| branch_name | varchar(15) | YES  |     | NULL    |       |
| amount      | double      | YES  |     | NULL    |       |
+-------------+-------------+------+-----+---------+-------+
```

```
mysql> Describe Employee;
+---------------+-------------+------+-----+---------+-------+
| Field         | Type        | Null | Key | Default | Extra |
+---------------+-------------+------+-----+---------+-------+
| employee_name | varchar(10) | NO   | PRI | NULL    |       |
| branch_name   | varchar(10) | YES  |     | NULL    |       |
| salary        | double      | YES  |     | NULL    |       |
+---------------+-------------+------+-----+---------+-------+
3 rows in set (0.00 sec)
```

QUESTION 3

```
MySQL 8.0 Command Line Client                                                    —  □  ×

Enter password: ****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 64
Server version: 8.0.19 MySQL Community Server - GPL

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owners.

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

mysql> use BidvestBank;
Database changed
mysql> select * from BankBranch_;
+-------------+--------------+---------+
| branch_name | branch_city  | assets  |
+-------------+--------------+---------+
| Amanzimtoti | Durban       |  300000 |
| Belgravia   | Kimberly     | 3700000 |
| Mabopane    | Pretoria     |  400000 |
| Mamelodi    | Pretoria     | 8000000 |
| Midrand     | johannesburg | 7100000 |
| Newtown     | Johannesburg | 9000000 |
| Sunnyside   | Pretoria     | 1700000 |
| Universitas | Bloemfontetin| 2100000 |
+-------------+--------------+---------+
8 rows in set (0.00 sec)

mysql> select * from customerAccount;
+----------------+-------------+---------+
| account_number | branch_name | balance |
+----------------+-------------+---------+
| A-2542         | Mamelodi    |     350 |
| A-3453         | Universitas |     700 |
| A-3546         | Midrand     |     750 |
| A-4467         | Mabopane    |     700 |
| A-5324         | Newtown     |     500 |
| A-5624         | Sunnyside   |     400 |
| A-7794         | Midrand     |     900 |
+----------------+-------------+---------+
7 rows in set (0.00 sec)

mysql> select * from _Customer;
+-----------------+----------------+----------------+
```

```
MySQL 8.0 Command Line Client                                                    —  □  ×
7 rows in set (0.00 sec)

mysql> select * from _Customer;
+---------------+----------------+----------------+
| customer_name | customer_street | customer_city |
+---------------+----------------+----------------+
| Modise        | Spring         | George         |
| Brooks        | Senator        | Johannesburg   |
| jooste        | North          | Kimberly       |
| Lombard       | Sand Hill      | Nelspruit      |
| Mokwena       | Walnut         | Port_Elizabeth |
| Johnson       | Mmabatho       | Mafikeng       |
| Johnson       | Alma           | Bloemfontein   |
| Zwane         | Main           | Mafikeng       |
| Lindsay       | Park           | George         |
| Smith         | North          | Kimberly       |
| Dlamini       | Putnam         | Port_Elizabeth |
| Williams      | Nassau         | Giyane         |
+---------------+----------------+----------------+
12 rows in set (0.00 sec)

mysql> select * from Depositor_;
+---------------+----------------+
| customer_name | account_number |
+---------------+----------------+
| Johnson       | A-5624         |
| Johnson       | A-5624         |
| Johnson       | A-7794         |
| Zwane         | A-3546         |
| Lindsay       | A-3453         |
| Smith         | A-4467         |
| Dlamini       | A-2542         |
+---------------+----------------+
7 rows in set (0.00 sec)

mysql> select * from Loan;
+-------------+-------------+--------+
| loan_number | branch_name | amount |
+-------------+-------------+--------+
| L-11        | Mamelodi    |    900 |
| L-14        | Newtown     |   1500 |
| L-15        | Sunnyside   |   1500 |
| L-16        | Sunnyside   |   1300 |
| L-17        | Newtown     |   1000 |
| L-23        | Universitas |   2000 |
| L-93        | Mabopane    |    500 |
```

```
MySQL 8.0 Command Line Client                                                    —  □  ×
mysql> select * from Borrowers;
+---------------+-------------+
| customer_name | loan_number |
+---------------+-------------+
| Modise        | L-16        |
| Jooste        | L-93        |
| Johnson       | L-15        |
| Jackson       | L-14        |
| Zwane         | L-17        |
| Smith         | L-11        |
| Smith         | L-23        |
| Williams      | L-17        |
+---------------+-------------+
8 rows in set (0.00 sec)

mysql> select * from Employee;
+---------------+-------------+--------+
| employee_name | branch_name | salary |
+---------------+-------------+--------+
| Brown         | Sunnyside   |   1300 |
| Gopal         | Sunnyside   |   5300 |
| Johnson       | Newtown     |   1500 |
| Loreena       | Newtown     |   1300 |
| Modise        | Sunnyside   |   1500 |
| Peterson      | Newtown     |   2500 |
| Rao           | Austin      |   1500 |
| Sato          | Newtown     |   1600 |
+---------------+-------------+--------+
8 rows in set (0.00 sec)

mysql>
```

QUESTION 4

I and ii

```
mysql> select * from CustomerAccount where balance < 700;
+----------------+-------------+---------+
| account_number | branch_name | balance |
+----------------+-------------+---------+
| A-2542         | Mamelodi    |     350 |
| A-5324         | Newtown     |     500 |
| A-5624         | Sunnyside   |     400 |
+----------------+-------------+---------+
3 rows in set (0.00 sec)

mysql> select Customer_name from _Customer where Customer_city = 'Johannesburg';
+---------------+
| Customer_name |
+---------------+
| Brooks        |
+---------------+
1 row in set (0.00 sec)
```

iii)

```
mysql> select * from employee where salary > 1500 and Branch_name != 'Newtown';
+---------------+-------------+--------+
| employee_name | branch_name | salary |
+---------------+-------------+--------+
| Gopal         | Sunnyside   |   5300 |
+---------------+-------------+--------+
1 row in set (0.00 sec)
```

iv)

```
mysql> use BidvestBank;
Database changed
mysql> select Avg(Salary) from Employee;
+-------------+
| Avg(Salary) |
+-------------+
|      2062.5 |
+-------------+
1 row in set (0.00 sec)
```

v)

```
mysql> use BidvestBank;
Database changed
mysql> select Branch_Name, Max(Assets) from BankBranch_;
+-------------+-------------+
| Branch_Name | Max(Assets) |
+-------------+-------------+
| Amanzimtoti |     9000000 |
+-------------+-------------+
1 row in set (0.00 sec)
```

QUESTION 5

I.

```
mysql> select Employee_name from Employee where Branch_name = 'Sunnyside';
```

II.
```
mysql> select * from Borrowers;
```

III.
```
mysql> select Account_number from Customeraccount where balance > 900;
Empty set (0.00 sec)
```

IV.
```
mysql> select Account_number, Balance from CustomerAccount where Branch_name = 'Newtown' and Balance > 6000;
Empty set (0.00 sec)
```

V.
```
mysql> select Branch_name, Assets from BankBranch_;
```