

## Question 1

```
mysql> create database BidvestBank;
Query OK, 1 row affected (0.23 sec)

mysql>
mysql> use BidvestBank;
Database changed
mysql>
mysql>
mysql> create table Customer(
  -> customer_name varchar(50) not null,
  -> customer_street varchar(50) not null,
  -> customer_city varchar(50) not null);
Query OK, 0 rows affected (0.61 sec)

mysql>
mysql> create table CustomerAccount(
  -> account_Number char(6) not null primary key,
  -> branch_name varchar(20) not null,
  -> balance double);
Query OK, 0 rows affected (0.76 sec)

mysql>
mysql> create table Loan(
  -> Loan_number char(4) not null primary key,
  -> branch_name varchar(20),
  -> amount double
  -> );
Query OK, 0 rows affected (0.68 sec)

mysql> create table BankBranch(
  -> branch_name varchar(20) not null primary key,
  -> branch_city varchar(50) not null,
  -> assets double
  -> );
Query OK, 0 rows affected (0.40 sec)

mysql> create table Depositor(
  -> customer_name varchar(50) not null,
  -> account_Number char(6) not null
  -> );
Query OK, 0 rows affected (0.49 sec)

mysql> create table Borrower(
  -> customer_name varchar(50) not null,
  -> Loan_number char(4) not null
  -> );
Query OK, 0 rows affected (0.83 sec)

mysql> create table Employee(
  -> Employee_name varchar(50) not null,
  -> branch_name varchar(50),
  -> salary double
  -> );
Query OK, 0 rows affected (0.57 sec)

mysql>
```

## Question 3

```
mysql> insert into Depositor values('Johnson','A-5624');
Query OK, 1 row affected (0.08 sec)

mysql> insert into Depositor values('Johnson','A-5624');
Query OK, 1 row affected (0.07 sec)

mysql> insert into Depositor values('Johnson','A-7794');
Query OK, 1 row affected (0.07 sec)

mysql> insert into Depositor values('Zwane','A-3546');
Query OK, 1 row affected (0.04 sec)

mysql> insert into Depositor values('Lindsay','A-3453');
Query OK, 1 row affected (0.07 sec)

mysql> insert into Depositor values('Smith','A-4467');
Query OK, 1 row affected (0.06 sec)

mysql> insert into Depositor values('Dlamini','A-2542');
Query OK, 1 row affected (0.05 sec)

mysql>
mysql> insert into Loan values('L-11','Mamelodi',900);
Query OK, 1 row affected (0.04 sec)

mysql> insert into Loan values('L-14','Newtown',1500);
Query OK, 1 row affected (0.06 sec)

mysql> insert into Loan values('L-15','Sunnyside',1500);
Query OK, 1 row affected (0.06 sec)

mysql> insert into Loan values('L-16','Sunnyside',1300);
Query OK, 1 row affected (0.06 sec)

mysql> insert into Loan values('L-17','Newtown',1000);
Query OK, 1 row affected (0.08 sec)

mysql> insert into Loan values('L-23','Universitas',2000);
Query OK, 1 row affected (0.06 sec)

mysql> insert into Loan values('L-93','Mabopane',500);
Query OK, 1 row affected (0.05 sec)

mysql>
mysql> insert into CustomerAccount values('A-5324','Newtown',500);
Query OK, 1 row affected (0.13 sec)

mysql> insert into CustomerAccount values('A-5624','Sunnyside',400);
Query OK, 1 row affected (0.13 sec)

mysql> insert into CustomerAccount values('A-7794','Midrand',900);
Query OK, 1 row affected (0.05 sec)

mysql> insert into CustomerAccount values('A-4467','Mabopane',700);
Query OK, 1 row affected (0.06 sec)

mysql> insert into CustomerAccount values('A-3546','Midrand',750);
Query OK, 1 row affected (0.05 sec)

mysql> insert into CustomerAccount values('A-3453','Universitas',700);
Query OK, 1 row affected (0.09 sec)

mysql> insert into CustomerAccount values('A-2542','Mamelodi',350);
Query OK, 1 row affected (0.07 sec)

mysql>
mysql> insert into BankBranch values('Midrand','Johannesburg',7100000);
Query OK, 1 row affected (0.05 sec)

mysql> insert into BankBranch values('Newtown','Johannesburg',9000000);
Query OK, 1 row affected (0.07 sec)

mysql> insert into BankBranch values('Mabopane','Pretoria',4000000);
Query OK, 1 row affected (0.08 sec)

mysql> insert into BankBranch values('Belgravia','Kimberly',3700000);
Query OK, 1 row affected (0.05 sec)

mysql> insert into BankBranch values('Sunnyside','Pretoria',1700000);
Query OK, 1 row affected (0.05 sec)

mysql> insert into BankBranch values('Amanzimtoti','Durban',3000000);
Query OK, 1 row affected (0.10 sec)

mysql> insert into BankBranch values('Universitas','Bloemfontein',2100000);
Query OK, 1 row affected (0.07 sec)
```

```

mysql> insert into Customer values('Modise','Spring','George');
Query OK, 1 row affected (0.11 sec)

mysql> insert into Customer values('Brooks','Senator','Johannesburg');
Query OK, 1 row affected (0.04 sec)

mysql> insert into Customer values('Jooste','North','Kimberly');
Query OK, 1 row affected (0.08 sec)

mysql> insert into Customer values('Lombard','Sand Hill','Nelspruit');
Query OK, 1 row affected (0.06 sec)

mysql> insert into Customer values('Mokwena','Walnur','Port-Elizabeth');
Query OK, 1 row affected (0.09 sec)

mysql> insert into Customer values('Johnson','Mmabatho','Mafikeng');
Query OK, 1 row affected (0.09 sec)

mysql> insert into Customer values('Johnson','Alma','Bloemfontein');
Query OK, 1 row affected (0.06 sec)

mysql> insert into Customer values('Zwane','Maln','Mafikeng');
Query OK, 1 row affected (0.07 sec)

mysql> insert into Customer values('Lindsay','Park','George');
Query OK, 1 row affected (0.07 sec)

mysql> insert into Customer values('Smith','North','Kimberly');
Query OK, 1 row affected (0.08 sec)

mysql> insert into Customer values('Dlamini','Putman','Port-Elizabeth');
Query OK, 1 row affected (0.09 sec)

mysql> insert into Customer values('Williams','Nassau','Giyane');
Query OK, 1 row affected (0.08 sec)

mysql>

mysql> insert into Borrower values('Modise','L-16');
Query OK, 1 row affected (0.05 sec)

mysql> insert into Borrower values('Jooste','L-93');
Query OK, 1 row affected (0.06 sec)

mysql> insert into Borrower values('Johnson','L-15');
Query OK, 1 row affected (0.06 sec)

mysql> insert into Borrower values('Jackson','L-14');
Query OK, 1 row affected (0.27 sec)

mysql> insert into Borrower values('Zwane','L-17');
Query OK, 1 row affected (0.06 sec)

mysql> insert into Borrower values('Smith','L-11');
Query OK, 1 row affected (0.07 sec)

mysql> insert into Borrower values('Smith','L-23');
Query OK, 1 row affected (0.09 sec)

mysql> insert into Borrower values('Williams','L-17');
Query OK, 1 row affected (0.14 sec)

mysql>

```

## Question.4 & 5

```

mysql>
mysql> Select account_Number From CustomerAccount
    -> Where balance < 700;
+-----+
| account_Number |
+-----+
| A-2542         |
| A-5324         |
| A-5624         |
+-----+
3 rows in set (0.00 sec)

mysql>
mysql> Select customer_name From Customer
    -> Where customer_city = 'Johannesburg';
+-----+
| customer_name |
+-----+
| Brooks        |
+-----+
1 row in set (0.00 sec)

mysql>
mysql> Select Employee_name From Employee
    -> Where salary < 1500 AND branch_name <> 'Newtown';
+-----+
| Employee_name |
+-----+
| Brown         |
+-----+
1 row in set (0.00 sec)

mysql>
mysql> Select AVG(salary) FROM Employee;
+-----+
| AVG(salary) |
+-----+
|      2062.5 |
+-----+
1 row in set (0.01 sec)

```

```

mysql>
mysql> Select branch_name
    -> From BankBranch
    -> Order by assets DESC
    -> limit 1;
+-----+
| branch_name |
+-----+
| Newtown     |
+-----+
1 row in set (0.00 sec)

mysql>
mysql> Select Employee_name
    -> FROM Employee
    -> Where branch_name = 'Sunnyside';
+-----+
| Employee_name |
+-----+
| Modise        |
| Brown         |
| Gopal         |
+-----+
3 rows in set (0.00 sec)

mysql>
mysql> Select * from Borrower;
+-----+-----+
| 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>
mysql> Select account_Number From CustomerAccount
    -> Where balance > 900;
Empty set (0.00 sec)

mysql>
mysql> Select account_Number From CustomerAccount
    -> Where branch_name ='Newtown' AND balance > 600 ;
Empty set (0.00 sec)

mysql>
mysql> Select branch_name, assets
    -> from BankBranch;
+-----+-----+
| branch_name | assets |
+-----+-----+
| Amanzimtoti | 3000000 |
| Belgravia   | 3700000 |
| Mabopane    | 4000000 |
| Mamelodi    | 8000000 |
| Midrand     | 7100000 |
| Newtown     | 9000000 |
| Sunnyside   | 1700000 |
| Universitas | 2100000 |
+-----+-----+
8 rows in set (0.00 sec)

mysql>
```