

Question 2

```
MySQL 8.0 Command Line Client - Unicode
mysql> create database BidvestBank;
Query OK, 1 row affected (0.28 sec)

mysql> show databases;
+-----+
| Database |
+-----+
| bidvestbank |
| information_schema |
| mysql |
| performance_schema |
| sakila |
| sys |
| world |
+-----+
7 rows in set (0.00 sec)

mysql> use BidvestBank;
Database changed
mysql> create table BankBranch(
  -> branchname varchar(20) not null,
  -> branchcity varchar(20) not null,
  -> assest double not null,
  -> primary key (branchname)
  -> );
Query OK, 0 rows affected (0.82 sec)

mysql> create table Customer(
  -> customername varchar(20) not null,
  -> customerstreet varchar(20) not null,
  -> customercity varchar(20) not null
  -> );
Query OK, 0 rows affected (0.76 sec)

mysql> create table CustomerAccount(
  -> accountnumber varchar(10) not null,
  -> branchname varchar(20) not null,
  -> balance double not null,
  -> primary key (accountnumber)
  -> );
Query OK, 0 rows affected (0.73 sec)

mysql> create table Loan(
  -> loannumber varchar(10) not null,
  -> branchname varchar(20) not null,
  -> amount double not null,
  -> primary key (loannumber)
  -> );
Query OK, 0 rows affected (0.72 sec)

mysql> create table Depositer(
  -> customername varchar(20) not null,
  -> accountnumber varchar(20) not null,
  -> primary key (accountnumber)
  -> );
Query OK, 0 rows affected (1.19 sec)

mysql> create table Borrower(
  -> customername varchar(20) not null,
  -> loannumber varchar(10) not null
  -> );
Query OK, 0 rows affected (0.84 sec)

mysql> create table Employee(
  -> employeeename varchar(20),
  -> branchname varchar(20) not null,
  -> salary double not null
  -> );
Query OK, 0 rows affected (0.76 sec)

mysql> insert into BankBranch values("Midrand","Johannesburg",7100000);
Query OK, 1 row affected (0.14 sec)

mysql> insert into BankBranch values("Newtown","Johannesburg",9000000);
Query OK, 1 row affected (0.09 sec)

mysql> insert into BankBranch values("Mapobane","Pretoria",4000000);
Query OK, 1 row affected (0.13 sec)

mysql> insert into BankBranch values("Belgravia","Kimberly",3700000);
Query OK, 1 row affected (0.18 sec)

mysql> insert into BankBranch values("Sunnyside","Pretoria",1700000);
Query OK, 1 row affected (0.15 sec)

mysql> insert into BankBranch values("Amanzintoti","Durban",300000);
```

QUESTION 3

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MySQL 8.0 Command Line Client - Unicode
Query OK, 1 row affected (0.37 sec)

mysql> insert into BankBranch values("Universitas","Bloemfontein",2100000);
Query OK, 1 row affected (0.14 sec)

mysql> insert into BankBranch values("Mamelodi","Pretoria",8000000);
Query OK, 1 row affected (0.12 sec)

mysql> insert into Customer values("Modise","Spring","George");
Query OK, 1 row affected (0.13 sec)

mysql> insert into Customer values("Brooks","Senator","Johannesburg");
Query OK, 1 row affected (0.13 sec)

mysql> insert into Customer values("Jooste","North","Kimberly");
Query OK, 1 row affected (0.09 sec)

mysql> insert into Customer values("Lombard","Sand Hill","Nelspruit")
-> ;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right
syntax to use near ';' at line 2
mysql> insert into Customer values("Lombard","Sand Hill","Nelspruit");
Query OK, 1 row affected (0.12 sec)

mysql> insert into Customer values("Mokwena","Walnut","Port-Elizabeth");
Query OK, 1 row affected (0.08 sec)

mysql> insert into Customer values("Johnson","Mmabatho","Mafikeng");
Query OK, 1 row affected (0.16 sec)

mysql> insert into Customer values("Johnson","Alma","Bloemfontein");
Query OK, 1 row affected (0.33 sec)

mysql> insert into Customer values("Zwane","Main","Mafikeng");
Query OK, 1 row affected (0.09 sec)

mysql> insert into Customer values("Lindsay","Park","George");
Query OK, 1 row affected (0.12 sec)

mysql> insert into Customer values("Smith","North","Kimberly");
Query OK, 1 row affected (0.09 sec)

mysql> insert into Customer values("Dlamini","Putnam","Port-Elizabeth");
```

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MySQL 8.0 Command Line Client - Unicode
mysql> insert into Customer values("Dlamini","Putnam","Port-Elizabeth");
Query OK, 1 row affected (0.13 sec)

mysql> insert into Customer values("Williams","Nassau","Giyane");
Query OK, 1 row affected (0.15 sec)

mysql> insert into CustomerAccount values("A-5324","Newtown",2000);
Query OK, 1 row affected (0.14 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 (0.14 sec)

mysql> insert into CustomerAccount values("A-4467","Mabopane",700);
Query OK, 1 row affected (0.16 sec)

mysql> insert into CustomerAccount values("A-3546","Midrand",1000);
Query OK, 1 row affected (0.14 sec)

mysql> insert into CustomerAccount values("A-3453","Universitas",1400);
Query OK, 1 row affected (0.13 sec)

mysql> insert into CustomerAccount values("A-2542","Mamelodi",350);
Query OK, 1 row affected (0.10 sec)

mysql> insert into Loan values("L-11","Mamelodi",900);
Query OK, 1 row affected (0.07 sec)

mysql> insert into Loan values("L-14","Newtown",1500);
Query OK, 1 row affected (0.10 sec)

mysql> insert into Loan values("L-15","Sunnyside",1500);
Query OK, 1 row affected (0.17 sec)

mysql> insert into Loan values("L-16","Sunnyside",1300);
Query OK, 1 row affected (0.12 sec)

mysql> insert into Loan values("L-17","Newtown",1000);
Query OK, 1 row affected (0.13 sec)

mysql> insert into Loan values("L-23","Universitas",2000);
```

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MySQL 8.0 Command Line Client - Unicode
Query OK, 1 row affected (0.14 sec)

mysql> insert into Loan values("L-93","Mabopane",500);
Query OK, 1 row affected (0.17 sec)

mysql> insert into Depositer values("Johnson","A-5624");
Query OK, 1 row affected (0.13 sec)

mysql> insert into Depositer values("Johnson","A-5624");
ERROR 1062 (23000): Duplicate entry 'A-5624' for key 'depositer.PRIMARY'
mysql> insert into Depositer values("Johnson","A-5634");
Query OK, 1 row affected (0.13 sec)

mysql> insert into Depositer values("Johnson","A-7794");
Query OK, 1 row affected (0.10 sec)

mysql> insert into Depositer values("Zwane","A-3546");
Query OK, 1 row affected (0.12 sec)

mysql> insert into Depositer values("Lindsay","A-3453");
Query OK, 1 row affected (0.06 sec)

mysql> insert into Depositer values("Smith","A-4467");
Query OK, 1 row affected (0.08 sec)

mysql> insert into Depositer values("Dlamini","A-2542");
Query OK, 1 row affected (0.07 sec)

mysql> insert into Borrower values("Modise","L-16");
Query OK, 1 row affected (0.14 sec)

mysql> insert into Borrower values("Jooste","L-93");
Query OK, 1 row affected (0.12 sec)

mysql> insert into Borrower values("Johnson","L-15");
Query OK, 1 row affected (0.13 sec)

mysql> insert into Borrower values("Jackson","L-14");
Query OK, 1 row affected (0.10 sec)

mysql> insert into Borrower values("Zwane","L-17");
Query OK, 1 row affected (0.10 sec)

mysql> insert into Borrower values("Smith","L-11");
```

```
MySQL 8.0 Command Line Client - Unicode
Query OK, 1 row affected (0.13 sec)

mysql> insert into Borrower values("Smith","L-23");
Query OK, 1 row affected (0.06 sec)

mysql> insert into Borrower values("Williams","L-17");
Query OK, 1 row affected (0.11 sec)

mysql> insert into Employee values("Modise","Sunnyside",1500);
Query OK, 1 row affected (0.07 sec)

mysql> insert into Employee values("Brown","Sunnyside",1300);
Query OK, 1 row affected (0.12 sec)

mysql> insert into Employee values("Gopal","Sunnyside",5300);
Query OK, 1 row affected (0.06 sec)

mysql> insert into Employee values("Johnson","Newtown",1500);
Query OK, 1 row affected (0.12 sec)

mysql> insert into Employee values("Loreena","Newtown",1300);
Query OK, 1 row affected (0.12 sec)

mysql> insert into Employee values("Peterson","Newtown",2500);
Query OK, 1 row affected (0.14 sec)

mysql> insert into Employee values("Rao","Austin",1500);
Query OK, 1 row affected (0.10 sec)

mysql> insert into Employee values("Sato","Austin",1600);
```

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QUESTION 4

```
Select MySQL 8.0 Command Line Client - Unicode

mysql> insert into Employee values("Sato","Austin",1600);
Query OK, 1 row affected (0.20 sec)

mysql> Select * from CustomerAccount where balance < 700;
+-----+-----+-----+
| accountnumber | branchname | balance |
+-----+-----+-----+
| A-2542        | Mamelodi   | 350     |
| A-5624        | Sunnyside  | 400     |
+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> Select customername from Customer where customercity = "Johannesburg";
+-----+
| customername |
+-----+
| Brooks       |
+-----+
1 row in set (0.00 sec)

mysql> Select * from Employee where salary > 1500 and branchname != "Newtown";
+-----+-----+-----+
| employeenname | branchname | salary |
+-----+-----+-----+
| Gopal         | Sunnyside  | 5300   |
| Sato          | Austin     | 1600   |
+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> Select Avg(salary) from Employee;
+-----+
| Avg(salary) |
+-----+
| 2062.5      |
+-----+
1 row in set (0.03 sec)

mysql> Select branchName, max(assets) from BankBranch;
ERROR 1054 (42S22): Unknown column 'assets' in 'field list'
mysql> Select branchname, max(assets) from BankBranch;
ERROR 1054 (42S22): Unknown column 'assets' in 'field list'
mysql> Select branchname,max(asset) from BankBranch;
ERROR 1054 (42S22): Unknown column 'asset' in 'field list'
```

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```
Select MySQL 8.0 Command Line Client - Unicode
1 row in set (0.00 sec)

mysql> Select * from Employee where salary > 1500 and branchname != "Newtown";
+-----+-----+-----+
| employeeName | branchname | salary |
+-----+-----+-----+
| Gopal        | Sunnyside  | 5300   |
| Sato         | Austin     | 1600   |
+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> Select Avg(salary) from Employee;
+-----+
| Avg(salary) |
+-----+
| 2062.5      |
+-----+
1 row in set (0.03 sec)

mysql> Select branchName, max(assets) from BankBranch;
ERROR 1054 (42S22): Unknown column 'assets' in 'field list'
mysql> Select branchname, max(assets) from BankBranch;
ERROR 1054 (42S22): Unknown column 'assets' in 'field list'
mysql> Select branchname,max(asset) from BankBranch;
ERROR 1054 (42S22): Unknown column 'asset' in 'field list'
mysql> Select branchname,max(assest) from BankBranch;
+-----+-----+
| branchname | max(assest) |
+-----+-----+
| Amanzintoti | 9000000     |
+-----+-----+
1 row in set (0.00 sec)

mysql>
```

QUESTION 5

```
MySQL 8.0 Command Line Client - Unicode
1 row in set (0.00 sec)

mysql> Select employeeName from Employee where branchname = "Sunnyside";
+-----+
| employeeName |
+-----+
| Modise       |
| Brown        |
| Gopal        |
+-----+
3 rows in set (0.00 sec)

mysql> Select * from Borrower;
+-----+-----+
| customerName | loanNumber |
+-----+-----+
| 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 accountNumber from CustomerAccount where balance > 900;
+-----+
| accountNumber |
+-----+
| A-3453        |
| A-3546        |
| A-5324        |
+-----+
3 rows in set (0.00 sec)

mysql> Select accountNumber,balance from CustomerAccount where branchname = "Newtown" and balance >600;
+-----+-----+
| accountNumber | balance |
+-----+-----+
| A-5324        | 2000    |
+-----+-----+
1 row in set (0.00 sec)
```

```
MySQL 8.0 Command Line Client - Unicode
+-----+-----+
| accountNumber | balance |
+-----+-----+
| A-5324        | 2000    |
+-----+-----+
1 row in set (0.00 sec)

mysql> Select branchName,assets from BankBranch;
ERROR 1054 (42S22): Unknown column 'assets' in 'field list'
mysql> Select branchname,assest from BankBranch;
+-----+-----+
| branchname | assest |
+-----+-----+
| Amanzintoti | 300000 |
| Belgravia   | 3700000 |
| Mamelodi    | 8000000 |
| Mapobane    | 4000000 |
| Midrand     | 7100000 |
| Newtown     | 9000000 |
| Sunnyside   | 1700000 |
| Universitas | 2100000 |
+-----+-----+
8 rows in set (0.01 sec)

mysql>
```

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