

Number 1 and 2

```
mysql> CREATE TABLE BankBranch(  
  -> id int(11) unsigned auto_increment primary key not null,  
  -> branch_name varchar(30) not null,  
  -> branch_city varchar(30) not null,  
  -> assets double not null  
  -> );
```

Query OK, 0 rows affected, 1 warning (2.13 sec)

```
mysql> describe BankBranch;
```

Field	Type	Null	Key	Default	Extra
id	int unsigned	NO	PRI	NULL	auto_increment
branch_name	varchar(30)	NO		NULL	
branch_city	varchar(30)	NO		NULL	
assets	double	NO		NULL	

4 rows in set (0.19 sec)

```
mysql> CREATE TABLE Customer(  
  -> id int(11) unsigned auto_increment primary key not null,  
  -> customer_name varchar(30) not null,  
  -> customer_street varchar(30) not null,  
  -> customer_city varchar(30) not null  
  -> );
```

Query OK, 0 rows affected, 1 warning (6.57 sec)

```
mysql> describe Customer;
```

Field	Type	Null	Key	Default	Extra
id	int unsigned	NO	PRI	NULL	auto_increment
customer_name	varchar(30)	NO		NULL	
customer_street	varchar(30)	NO		NULL	
customer_city	varchar(30)	NO		NULL	

4 rows in set (0.06 sec)

```
mysql> CREATE TABLE CustomerAccount(
  -> account_number char(6) not null primary key,
  -> branch_name varchar(10) not null,
  -> balance double
  -> );
```

Query OK, 0 rows affected (1.82 sec)

```
mysql> describe CustomerAccount;
```

Field	Type	Null	Key	Default	Extra
account_number	char(6)	NO	PRI	NULL	
branch_name	varchar(10)	NO		NULL	
balance	double	YES		NULL	

3 rows in set (0.15 sec)

```
mysql> CREATE TABLE Loan(
  -> loan_number varchar(5) not null primary key,
  -> branch_name varchar(30) not null,
  -> amount double
  -> );
```

Query OK, 0 rows affected (2.91 sec)

```
mysql>
```

```
mysql> describe Loan;
```

Field	Type	Null	Key	Default	Extra
loan_number	varchar(5)	NO	PRI	NULL	
branch_name	varchar(30)	NO		NULL	
amount	double	YES		NULL	

3 rows in set (0.12 sec)

```
mysql> CREATE TABLE Depositor(
  -> account_number char(6) not null primary key,
  -> customer_name varchar(30) not null
  -> );
```

Query OK, 0 rows affected (2.87 sec)

```
mysql>
mysql> describe Depositor;
```

Field	Type	Null	Key	Default	Extra
account_number	char(6)	NO	PRI	NULL	
customer_name	varchar(30)	NO		NULL	

2 rows in set (0.23 sec)

```
mysql> CREATE TABLE Borrower(
  -> loan_number varchar(30) not null primary key,
  -> customer_name varchar(30) not null
  -> );
```

Query OK, 0 rows affected (19.78 sec)

```
mysql> describe Borrower;
```

Field	Type	Null	Key	Default	Extra
loan_number	varchar(30)	NO	PRI	NULL	
customer_name	varchar(30)	NO		NULL	

2 rows in set (0.65 sec)

```
mysql> CREATE TABLE Employee(
  -> id int(11) unsigned auto_increment primary key not null,
  -> employee_name varchar(30) not null,
  -> branch_name varchar(30) not null,
  -> salary double
  -> );
```

Query OK, 0 rows affected, 1 warning (3.47 sec)

```
mysql>
mysql> describe Employee;
```

Field	Type	Null	Key	Default	Extra
id	int unsigned	NO	PRI	NULL	auto_increment
employee_name	varchar(30)	NO		NULL	
branch_name	varchar(30)	NO		NULL	
salary	double	YES		NULL	

4 rows in set (0.27 sec)

Number 3

```
mysql> INSERT INTO BankBranch(branch_name, branch_city, assets)
-> values
-> ('Midrand', 'Johannesburg', 7100000),
-> ('Newtown', 'Johannesburg', 9000000),
-> ('Mabopane', 'Pretoria', 400000),
-> ('Belgravia', 'Kimberly', 3700000),
-> ('Sunnyside', 'Pretoria', 1700000),
-> ('Amanzimtoti', 'Durban', 300000),
-> ('Universitas', 'Bloemfontein', 2100000),
-> ('Mamelodi', 'Pretoria', 8000000);
```

Query OK, 8 rows affected (1.62 sec)
Records: 8 Duplicates: 0 Warnings: 0

```
mysql> select * from BankBranch;
```

id	branch_name	branch_city	assets
1	Midrand	Johannesburg	7100000
2	Newtown	Johannesburg	9000000
3	Mabopane	Pretoria	400000
4	Belgravia	Kimberly	3700000
5	Sunnyside	Pretoria	1700000
6	Amanzimtoti	Durban	300000
7	Universitas	Bloemfontein	2100000
8	Mamelodi	Pretoria	8000000

8 rows in set (0.07 sec)

```
mysql> INSERT INTO Customer(customer_name, customer_street, customer_city)
-> values
-> ('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');
```

Query OK, 12 rows affected (1.15 sec)

Records: 12 Duplicates: 0 Warnings: 0

```
mysql>
```

```
mysql> select * from Customer;
```

id	customer_name	customer_street	customer_city
1	Modise	Spring	George
2	Brooks	Senator	Johannesburg
3	Jooste	North	Kimberly
4	Lombard	Sand Hill	Nelspruit
5	Mokwena	Walnut	Port-Elizabeth
6	Johnson	Mmabatho	Mafikeng
7	Johnson	Alma	Bloemfontein
8	Zwane	Main	Mafikeng
9	Lindsay	Park	George
10	Smith	North	Kimberly
11	Dlamini	Putnam	Port-Elizabeth
12	Williams	Nassau	Giyane

12 rows in set (0.00 sec)

```
mysql> INSERT INTO CustomerAccount(account_number, branch_name, balance)
-> values
-> ('A-5324', 'Newtown', 500),
-> ('A-5624', 'Sunnyside', 400),
-> ('A-7794', 'Midrand', 900),
-> ('A-4467', 'Mabopane', 700),
-> ('A-3546', 'Midrand', 750),
-> ('A-3453', 'Universitas', 700),
-> ('A-2542', 'Mamelodi', 350);
Query OK, 7 rows affected (0.35 sec)
Records: 7 Duplicates: 0 Warnings: 0
```

```
mysql>
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> INSERT INTO Loan(loan_number, branch_name, amount)
-> values
-> ('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);
Query OK, 7 rows affected (0.97 sec)
Records: 7 Duplicates: 0 Warnings: 0
```

```
mysql>
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    |
+-----+-----+-----+
7 rows in set (0.00 sec)
```

```
mysql> INSERT INTO Depositor(account_number, customer_name)
-> values
-> ('A-5624', 'Johnson'),
-> ('A-7794', 'Johnson'),
-> ('A-3546', 'Zwane'),
-> ('A-3453', 'Lindsay'),
-> ('A-4467', 'Smith'),
-> ('A-2542', 'Dlamini');
Query OK, 6 rows affected (0.25 sec)
Records: 6 Duplicates: 0 Warnings: 0
```

```
mysql>
mysql> select * from Depositor;
+-----+-----+
| account_number | customer_name |
+-----+-----+
| A-2542         | Dlamini       |
| A-3453         | Lindsay       |
| A-3546         | Zwane         |
| A-4467         | Smith         |
| A-5624         | Johnson       |
| A-7794         | Johnson       |
+-----+-----+
6 rows in set (0.07 sec)
```

```
mysql> INSERT INTO Borrower(loan_number, customer_name)
-> values
-> ('L-16', 'Modise'),
-> ('L-93', 'Jooste'),
-> ('L-15', 'Johnson'),
-> ('L-14', 'Jackson'),
-> ('L-17', 'Zwane'),
-> ('L-11', 'Smith'),
-> ('L-23', 'Smith'),
-> ('L-21', 'Williams');
Query OK, 8 rows affected (0.44 sec)
Records: 8 Duplicates: 0 Warnings: 0
```

```
mysql>
mysql> select * from Borrower;
+-----+-----+
| loan_number | customer_name |
+-----+-----+
| L-11        | Smith         |
| L-14        | Jackson       |
| L-15        | Johnson       |
| L-16        | Modise        |
| L-17        | Zwane         |
| L-21        | Williams      |
| L-23        | Smith         |
| L-93        | Jooste        |
+-----+-----+
8 rows in set (0.00 sec)
```

```
mysql> INSERT INTO Employee(employee_name, branch_name, salary)
-> values
-> ('Modise', 'Sunnyside', 1500),
-> ('Brown', 'Sunnyside', 1300),
-> ('Gopal', 'Sunnyside', 5300),
-> ('Johnson', 'Newtown', 1500),
-> ('Loreena', 'Newtown', 1300),
-> ('Peterson', 'Newtown', 2500),
-> ('Rao', 'Austin', 1500),
-> ('Sato', 'Austin', 1600);
```

```
Query OK, 8 rows affected (2.90 sec)
Records: 8 Duplicates: 0 Warnings: 0
```

```
mysql>
```

```
mysql> select * from Employee;
```

id	employee_name	branch_name	salary
1	Modise	Sunnyside	1500
2	Brown	Sunnyside	1300
3	Gopal	Sunnyside	5300
4	Johnson	Newtown	1500
5	Loreena	Newtown	1300
6	Peterson	Newtown	2500
7	Rao	Austin	1500
8	Sato	Austin	1600

```
8 rows in set (0.12 sec)
```


Number 4

i.

```
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 (0.31 sec)
```

ii.

```
mysql> select * from Customer where customer_city = 'Johannesburg';
+-----+-----+-----+-----+
| id | customer_name | customer_street | customer_city |
+-----+-----+-----+-----+
| 2  | Brooks        | Senator         | Johannesburg  |
+-----+-----+-----+-----+
1 row in set (0.40 sec)
```

iii.

```
mysql> select * from Employee where salary > 1500 and not branch_name = 'Newtown';
+-----+-----+-----+-----+
| id | employee_name | branch_name | salary |
+-----+-----+-----+-----+
| 3  | Gopal         | Sunnyside   | 5300   |
| 8  | Sato          | Austin      | 1600   |
+-----+-----+-----+-----+
2 rows in set (0.08 sec)
```

iv.

```
mysql> SELECT AVG(salary) FROM Employee;
+-----+
| AVG(salary) |
+-----+
| 2062.5       |
+-----+
1 row in set (1.69 sec)
```

- iv. The bank with the largest amount of assets is Johannesburg (Newtown)

```
mysql> select * from BankBranch;
+-----+-----+-----+-----+
| id | branch_name | branch_city | assets |
+-----+-----+-----+-----+
| 1 | Midrand     | Johannesburg | 7100000 |
| 2 | Newtown     | Johannesburg | 9000000 |
| 3 | Mabopane    | Pretoria    | 400000  |
| 4 | Belgravia   | Kimberly   | 3700000 |
| 5 | Sunnyside   | Pretoria    | 1700000 |
| 6 | Amanzimtoti | Durban      | 300000  |
| 7 | Universitas | Bloemfontein | 2100000 |
| 8 | Mamelodi    | Pretoria    | 8000000 |
+-----+-----+-----+-----+
8 rows in set (0.00 sec)

mysql> select max(assets) from BankBranch;
+-----+
| max(assets) |
+-----+
| 9000000     |
+-----+
1 row in set (0.01 sec)
```

Number 5

- i.

```
mysql> Select * From Employee where branch_name = 'Sunnyside';
+-----+-----+-----+-----+
| id | employee_name | branch_name | salary |
+-----+-----+-----+-----+
| 1 | Modise        | Sunnyside   | 1500   |
| 2 | Brown         | Sunnyside   | 1300   |
| 3 | Gopal         | Sunnyside   | 5300   |
+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

ii.

```
mysql> select * from Borrower;
+-----+-----+
| loan_number | customer_name |
+-----+-----+
| L-11        | Smith         |
| L-14        | Jackson       |
| L-15        | Johnson       |
| L-16        | Modise        |
| L-17        | Zwane         |
| L-21        | Williams      |
| L-23        | Smith         |
| L-93        | Jooste        |
+-----+-----+
8 rows in set (0.19 sec)
```

iii. All the accounts have a balance less than R900

```
mysql> Select * from CustomerAccount where balance > 900;
Empty set (0.15 sec)
```

iv. All the accounts from Newtown have a balance that is less than R600

```
mysql> Select * From CustomerAccount where branch_name = 'Newtown' and balance > 600;
Empty set (0.03 sec)
```

v.

```
mysql> Select * From BankBranch;
+-----+-----+-----+-----+
| id | branch_name | branch_city | assets |
+-----+-----+-----+-----+
| 1 | Midrand     | Johannesburg | 7100000 |
| 2 | Newtown     | Johannesburg | 9000000 |
| 3 | Mabopane    | Pretoria     | 400000  |
| 4 | Belgravia   | Kimberly     | 3700000 |
| 5 | Sunnyside   | Pretoria     | 1700000 |
| 6 | Amanzimtoti | Durban       | 300000  |
| 7 | Universitas | Bloemfontein | 2100000 |
| 8 | Mamelodi    | Pretoria     | 8000000 |
+-----+-----+-----+-----+
8 rows in set (0.16 sec)
```