

08 February 2018

```
mysql-js> \c root@localhost
Creating a Session to 'root@localhost'
Enter password: *****
Your MySQL connection id is 8
Server version: 5.7.20-log MySQL Community Server (GPL)
No default schema selected; type \use <schema> to set one.
mysql-js> \sql
Switching to SQL mode... Commands end with ;
mysql-sql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| comp3421_pda |
| mysql |
| performance_schema |
| sys |
| world |
+-----+
6 rows in set (0.19 sec)
mysql-sql> use comp3421_pda
... ;
Query OK, 0 rows affected (0.12 sec)
mysql-sql> show tables;
+-----+
| Tables_in_comp3421_pda |
+-----+
| accounts |
| banks |
| collateral |
| customers |
| loans |
+-----+
5 rows in set (0.10 sec)
mysql-sql> alter table accounts drop primary key;
Query OK, 0 rows affected (1.17 sec)

Records: 0 Duplicates: 0 Warnings: 0
mysql-sql> alter table banks drop primary key;
Query OK, 0 rows affected (0.88 sec)

Records: 0 Duplicates: 0 Warnings: 0
mysql-sql> alter table collateral drop primary key;
Query OK, 0 rows affected (0.89 sec)

Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql-sql> alter table loans drop primary key;
Query OK, 0 rows affected (0.76 sec)
```

Records: 0 Duplicates: 0 Warnings: 0

```
mysql-sql> alter table accounts add foreign key (customerid) references
customers(customerid);
Query OK, 0 rows affected (0.95 sec)
```

Records: 0 Duplicates: 0 Warnings: 0

```
mysql-sql> alter table banks add foreign key (customerid) references
customers(customerid);
Query OK, 0 rows affected (2.89 sec)
```

Records: 0 Duplicates: 0 Warnings: 0

```
mysql-sql> alter table collateral add foreign key (customerid) references
customers(customerid);
Query OK, 0 rows affected (0.77 sec)
```

Records: 0 Duplicates: 0 Warnings: 0

```
mysql-sql> alter table loans add foreign key (customerid) references
customers(customerid);
Query OK, 0 rows affected (0.92 sec)
```

Records: 0 Duplicates: 0 Warnings: 0

```
mysql-sql> describe accounts;
```

Field	Type	Null	Key	Default	Extra
customerid	int(11)	NO	MUL	null	
accountnumber	int(11)	YES		null	
balance	decimal(15,2)	YES		null	

3 rows in set (0.15 sec)

```
mysql-sql> describe banks;
```

Field	Type	Null	Key	Default	Extra
customerid	int(11)	NO	MUL	null	
bankname	varchar(30)	YES	UNI	null	
address	varchar(50)	YES	UNI	null	
phonenummer	varchar(15)	YES	UNI	null	

4 rows in set (0.00 sec)

```
mysql-sql> describe collateral;
```

Field	Type	Null	Key	Default	Extra
customerid	int(11)	NO	MUL	null	

property	varchar(200)	YES		null
naturalresources	varchar(200)	YES		null
machinery	varchar(200)	YES		null
financialassets	varchar(200)	YES		null

```
mysql-sql> describe loans;
```

Field	Type	Null	Key	Default	Extra
customerid	int(11)	NO	MUL	null	
loanid	int(11)	YES	UNI	null	
balance	decimal(15,2)	NO		null	
loantype	varchar(20)	NO		null	
interestrate	decimal(5,2)	NO		null	
previouspayment	decimal(15,2)	YES		null	
nextpayment	decimal(15,2)	YES		null	
nextpaymentdate	varchar(30)	NO		null	

```
mysql-sql> describe customers;
```

Field	Type	Null	Key	Default	Extra
customerid	int(11)	NO	PRI	null	auto_increment
firstname	varchar(20)	NO		null	
lastname	varchar(20)	NO		null	
email	varchar(255)	YES	UNI	null	
phonenumber	varchar(15)	YES	UNI	null	
address	varchar(50)	YES		null	

```
mysql-sql> show create table loans;
```

[illegible]

```

-----+
| loans | CREATE TABLE `loans` (
  `customerid` int(11) NOT NULL,
  `loanid` int(11) DEFAULT NULL,
  `balance` decimal(15,2) NOT NULL,
  `loantype` varchar(20) NOT NULL,
  `interestrate` decimal(5,2) NOT NULL,
  `previouspayment` decimal(15,2) DEFAULT NULL,
  `nextpayment` decimal(15,2) DEFAULT NULL,
  `nextpaymentdate` varchar(30) NOT NULL,
  UNIQUE KEY `loanid` (`loanid`),
  KEY `customerid` (`customerid`),
  CONSTRAINT `loans_ibfk_1` FOREIGN KEY (`customerid`) REFERENCES `customers`
(`customerid`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8 |
+-----+

```

```

-----+
1 row in set (0.13 sec)
mysql-sql> alter table loans drop foreign key loans_ibfk_1;
Query OK, 0 rows affected (0.09 sec)

```

```

Records: 0 Duplicates: 0 Warnings: 0
mysql-sql> describe loans;

```

Field	Type	Null	Key	Default	Extra
customerid	int(11)	NO	MUL	null	
loanid	int(11)	YES	UNI	null	
balance	decimal(15,2)	NO		null	
loantype	varchar(20)	NO		null	
interestrate	decimal(5,2)	NO		null	
previouspayment	decimal(15,2)	YES		null	
nextpayment	decimal(15,2)	YES		null	
nextpaymentdate	varchar(30)	NO		null	

```

-----+
8 rows in set (0.00 sec)
mysql-sql> alter table loans drop column customerid;
Query OK, 0 rows affected (0.50 sec)

```

part3-typescript.txt

Records: 0 Duplicates: 0 Warnings: 0

mysql-sql> describe loans;

Field	Type	Null	Key	Default	Extra
loanid	int(11)	YES	UNI	null	
balance	decimal(15,2)	NO		null	
loantype	varchar(20)	NO		null	
interestrate	decimal(5,2)	NO		null	
previouspayment	decimal(15,2)	YES		null	
nextpayment	decimal(15,2)	YES		null	
nextpaymentdate	varchar(30)	NO		null	

7 rows in set (0.02 sec)

mysql-sql> alter table loans drop index loanid;

Query OK, 0 rows affected (0.22 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql-sql> describe loans;

Field	Type	Null	Key	Default	Extra
loanid	int(11)	YES		null	
balance	decimal(15,2)	NO		null	
loantype	varchar(20)	NO		null	
interestrate	decimal(5,2)	NO		null	
previouspayment	decimal(15,2)	YES		null	
nextpayment	decimal(15,2)	YES		null	
nextpaymentdate	varchar(30)	NO		null	

7 rows in set (0.00 sec)

mysql-sql> alter table loans add primary key (loanid);

Query OK, 0 rows affected (0.53 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql-sql> describe loans;

Field	Type	Null	Key	Default	Extra
loanid	int(11)	NO	PRI	null	
balance	decimal(15,2)	NO		null	
loantype	varchar(20)	NO		null	
interestrate	decimal(5,2)	NO		null	
previouspayment	decimal(15,2)	YES		null	
nextpayment	decimal(15,2)	YES		null	
nextpaymentdate	varchar(30)	NO		null	

part3-typescript.txt

7 rows in set (0.00 sec)

```
mysql-sql> create table ispaying (customerid int not null, loanid int not null,
foreign key (customerid) references customers(customerid), foreign key (loanid)
references loans(loanid));
```

Query OK, 0 rows affected (0.37 sec)

```
mysql-sql> describe ispaying;
```

Field	Type	Null	Key	Default	Extra
customerid	int(11)	NO	MUL	null	
loanid	int(11)	NO	MUL	null	

2 rows in set (0.10 sec)

09 February 2018

```
mysql-js> \c root@localhost
```

Creating a Session to 'root@localhost'

Enter password: *****

Your MySQL connection id is 9

Server version: 5.7.20-log MySQL Community Server (GPL)

No default schema selected; type \use <schema> to set one.

```
mysql-js> \sql
```

Switching to SQL mode... Commands end with ;

```
mysql-sql> use comp3421_pda
```

... ;

Query OK, 0 rows affected (0.00 sec)

```
mysql-sql> load data local infile 'C:\Users\Zache\Desktop\data-customers.csv' into
table customers
```

... fields terminated by ','

... lines terminated by '\n'

... ;

ERROR: 2 (HY000): File 'C:\Users\Zache\Desktop\data-customers.csv' not found (Errcode: 2 - No such file or directory)

```
mysql-sql> load data local infile 'C:/Users/Zache/Desktop/data-customers.csv' into
table customers
```

... fields terminated by ','

... lines terminated by '\n'

... ;

Query OK, 2995 rows affected (1.09 sec)

Records: 2995 Deleted: 0 Skipped: 0 Warnings: 0

```
mysql-sql> load data local infile 'C:/Users/Zache/Desktop/data-loans.csv' into table
loans
```

... fields terminated by ','

... lines terminated by '\n'

part3-typescript.txt

```
... ;  
Query OK, 1000 rows affected (0.30 sec)
```

```
Records: 1000 Deleted: 0 Skipped: 0 Warnings: 0  
mysql-sql> load data local infile 'C:/Users/Zache/Desktop/data-is-paying.csv' into  
table ispaying
```

```
... fields terminated by ','  
... lines terminated by '\n'  
... ;  
Query OK, 30000 rows affected (2.79 sec)
```

```
Records: 30000 Deleted: 0 Skipped: 0 Warnings: 0  
mysql-sql> alter table banks drop index bankname;  
Query OK, 0 rows affected (0.32 sec)
```

```
Records: 0 Duplicates: 0 Warnings: 0  
mysql-sql> alter table banks drop index address;  
Query OK, 0 rows affected (0.28 sec)
```

```
Records: 0 Duplicates: 0 Warnings: 0  
mysql-sql> alter table banks drop index phonenumber;  
Query OK, 0 rows affected (0.25 sec)
```

```
Records: 0 Duplicates: 0 Warnings: 0  
mysql-sql> describe banks;
```

Field	Type	Null	Key	Default	Extra
customerid	int(11)	NO	MUL	null	
bankname	varchar(30)	YES		null	
address	varchar(50)	YES		null	
phonenumber	varchar(15)	YES		null	

```
4 rows in set (0.11 sec)  
mysql-sql> alter table collateral drop financialassets;  
Query OK, 0 rows affected (0.64 sec)
```

```
Records: 0 Duplicates: 0 Warnings: 0  
mysql-sql> describe collateral
```

```
... ;
```

Field	Type	Null	Key	Default	Extra
customerid	int(11)	NO	MUL	null	
property	varchar(200)	YES		null	
naturalresources	varchar(200)	YES		null	
machinery	varchar(200)	YES		null	

part3-typescript.txt

4 rows in set (0.00 sec)

```
mysql-sql> load data local infile 'C:/Users/Zache/Desktop/data-accounts.csv' into
table accounts
```

```
... fields terminated by ','
... lines terminated by '\n'
... ;
```

Query OK, 6000 rows affected (1.02 sec)

Records: 6000 Deleted: 0 Skipped: 0 Warnings: 0

```
mysql-sql> load data local infile 'C:/Users/Zache/Desktop/data-banks.csv' into table
banks
```

```
... fields terminated by ','
... lines terminated by '\n'
... ;
```

Query OK, 6000 rows affected (1.61 sec)

Records: 6000 Deleted: 0 Skipped: 0 Warnings: 0

```
mysql-sql> load data local infile 'C:/Users/Zache/Desktop/data-collateral.csv' into
table collateral
```

```
... fields terminated by ','
... lines terminated by '\n'
... ;
```

Query OK, 6000 rows affected (1.56 sec)

Records: 6000 Deleted: 0 Skipped: 0 Warnings: 0

```
mysql-sql> show tables;
```

```
+-----+
| Tables_in_comp3421_pda |
+-----+
| accounts                |
| banks                   |
| collateral               |
| customers               |
| ispaying                |
| loans                   |
+-----+
```

6 rows in set (0.13 sec)

```
mysql-sql> describe accounts
```

```
... describe banks
... describe collateral
... describe customers
... describe ispaying
... describe loans;
```

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 'describe banks

describe collateral

describe customers

part3-typescript.txt

describe ispaying

describe' at line 2

mysql-sql> describe accounts;

Field	Type	Null	Key	Default	Extra
customerid	int(11)	NO	MUL	null	
accountnumber	int(11)	YES		null	
balance	decimal(15,2)	YES		null	

3 rows in set (0.00 sec)

mysql-sql> describe banks;

Field	Type	Null	Key	Default	Extra
customerid	int(11)	NO	MUL	null	
bankname	varchar(30)	YES		null	
address	varchar(50)	YES		null	
phonenummer	varchar(15)	YES		null	

4 rows in set (0.00 sec)

mysql-sql> describe collateral;

Field	Type	Null	Key	Default	Extra
customerid	int(11)	NO	MUL	null	
property	varchar(200)	YES		null	
naturalresources	varchar(200)	YES		null	
machinery	varchar(200)	YES		null	

4 rows in set (0.00 sec)

mysql-sql> describe customers;

Field	Type	Null	Key	Default	Extra
customerid	int(11)	NO	PRI	null	auto_increment
firstname	varchar(20)	NO		null	
lastname	varchar(20)	NO		null	
email	varchar(255)	YES	UNI	null	
phonenummer	varchar(15)	YES	UNI	null	
address	varchar(50)	YES		null	

6 rows in set (0.00 sec)

mysql-sql> describe ispaying;

Field	Type	Null	Key	Default	Extra
customerid	int(11)	NO	MUL	null	

```

part3-typescript.txt
| loanid      | int(11) | NO   | MUL | null   |      |
+-----+-----+-----+-----+-----+-----+

```

2 rows in set (0.00 sec)

```
mysql-sql> describe loans;
```

```

+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| loanid         | int(11)       | NO   | PRI | null     |       |
| balance        | decimal(15,2) | NO   |     | null     |       |
| loantype       | varchar(20)   | NO   |     | null     |       |
| interestrate   | decimal(5,2)  | NO   |     | null     |       |
| previouspayment | decimal(15,2) | YES  |     | null     |       |
| nextpayment    | decimal(15,2) | YES  |     | null     |       |
| nextpaymentdate | varchar(30)   | NO   |     | null     |       |
+-----+-----+-----+-----+-----+-----+

```

7 rows in set (0.00 sec)

```
mysql-sql> select count(*) from accounts;
```

```

+-----+
| count(*) |
+-----+
|      6000 |
+-----+

```

1 row in set (0.14 sec)

```
mysql-sql> select count(*) from banks;
```

```

+-----+
| count(*) |
+-----+
|      6000 |
+-----+

```

1 row in set (0.00 sec)

```
mysql-sql> select count(*) from collateral;
```

```

+-----+
| count(*) |
+-----+
|      6000 |
+-----+

```

1 row in set (0.00 sec)

```
mysql-sql> select count(*) from loans;
```

```

+-----+
| count(*) |
+-----+
|      1000 |
+-----+

```

1 row in set (0.14 sec)

```
mysql-sql> select count(*) from customers;
```

```

+-----+
| count(*) |
+-----+

```

```
|      3000 |
+-----+
```

1 row in set (0.13 sec)

```
mysql-sql> select count(*) from ispaying;
```

```
+-----+
| count(*) |
+-----+
|    30000 |
+-----+
```

1 row in set (0.36 sec)

```
mysql-sql> select * from accounts where customerid = 1;
```

```
+-----+-----+-----+
| customerid | accountnumber | balance   |
+-----+-----+-----+
|          1 |          5455 | 5236379.00 |
+-----+-----+-----+
```

1 row in set (0.16 sec)

```
mysql-sql> select * from banks where customerid = 690;
```

```
+-----+-----+-----+-----+
-+
| customerid | bankname | address                                     | phonenumber |
|
+-----+-----+-----+-----+
-+
|          690 | US Bank | 634 Money Making Blvd Breckenridge CO 80250 | 621937922 |
|
|          690 | US Bank | 4626 Money Making Blvd Breckenridge CO 80250 | 494798777 |
|
+-----+-----+-----+-----+
```

-+

2 rows in set (0.00 sec)

```
mysql-sql> select * from collateral where customerid < 3;
```

```
+-----+-----+-----+-----+
+-----+
| customerid | property                                     | naturalresources |
| machinery |
+-----+-----+-----+-----+
+-----+
|          1 | 3797 Investment Property Ave Manhattan NY 35201 | Natural Gas      |
Microprocessor plant in China |
|          2 | 2539 Investment Property Ave Manhattan NY 35201 | Natural Gas      |
Microprocessor plant in China |
|          2 | 4375 Investment Property Ave Manhattan NY 35201 | Natural Gas      |
Microprocessor plant in China |
+-----+-----+-----+-----+
```

3 rows in set (0.00 sec)

```
mysql-sql> select * from customers where customerid < 10;
```

part3-typescript.txt

customerid	firstname	lastname	email	phonenumbers	address
1	Zachery	Nyman	Zachery.nyman@du.edu	5132121915	2581
2	Courtney	Owen	Courtney.owen@du.edu	1234567890	2581
3	Tom	Marks	Tom.marks@du.edu	1234567891	8923
4	Drew	Harrilchak	Drew.Harrilchak@du.edu	1234567892	8944
5	Brian	Norris	Brian.Norris@du.edu	1234567893	4251
6	Jenny6	Davis6	Jenny6.Davis6@du.edu	279706364	6
7	Jenny7	Davis7	Jenny7.Davis7@du.edu	181418709	7
8	Jenny8	Davis8	Jenny8.Davis8@du.edu	478036706	8
9	Jenny9	Davis9	Jenny9.Davis9@du.edu	979564550	9

9 rows in set (0.00 sec)

mysql-sql> select * from ispaying where customerid < 3;

customerid	loanid
1	978
1	417
1	265
1	988
1	878
1	640
1	206
1	418
1	474
2	279
2	491
2	440
2	461
2	527
2	165
2	367
2	826

part3-typescript.txt

```
|          2 |      931 |
```

```
+-----+-----+
```

```
18 rows in set (0.00 sec)
```

```
mysql-sql> select * from loans where loanid < 10;
```

```
+-----+-----+-----+-----+-----+-----+
```

```
---+-----+-----+
```

```
| loanid | balance      | loantype          | interestrate | previouspayment |
nextpayment | nextpaymentdate |
```

```
+-----+-----+-----+-----+-----+-----+
```

```
---+-----+-----+
```

```
|      1 | 3617582.00 | Investment Loan |      4.00 |      39710.00 |
12379.00 | 3/15/2018   |                  |           |                 |
|      2 | 3912347.00 | Investment Loan |      8.00 |      45553.00 |
46861.00 | 2/7/2018    |                  |           |                 |
|      3 | 5406383.00 | Investment Loan |      7.00 |      37204.00 |
48364.00 | 10/24/2018  |                  |           |                 |
|      4 | 1244242.00 | Investment Loan |     12.00 |      12406.00 |
21149.00 | 3/28/2018   |                  |           |                 |
|      5 | 784708.00  | Investment Loan |     12.00 |       2293.00 |
50309.00 | 9/19/2018   |                  |           |                 |
|      6 | 5229660.00 | Investment Loan |      8.00 |      49915.00 |
16429.00 | 5/13/2018   |                  |           |                 |
|      7 | 4549227.00 | Investment Loan |      4.00 |      32292.00 |
30487.00 | 8/20/2018   |                  |           |                 |
|      8 | 2610169.00 | Investment Loan |      4.00 |      24543.00 |
44661.00 | 8/28/2018   |                  |           |                 |
|      9 | 4361631.00 | Investment Loan |      6.00 |       8671.00 |
37487.00 | 11/13/2018  |                  |           |                 |
```

```
+-----+-----+-----+-----+-----+-----+
```

```
---+-----+-----+
```

```
9 rows in set (0.00 sec)
```