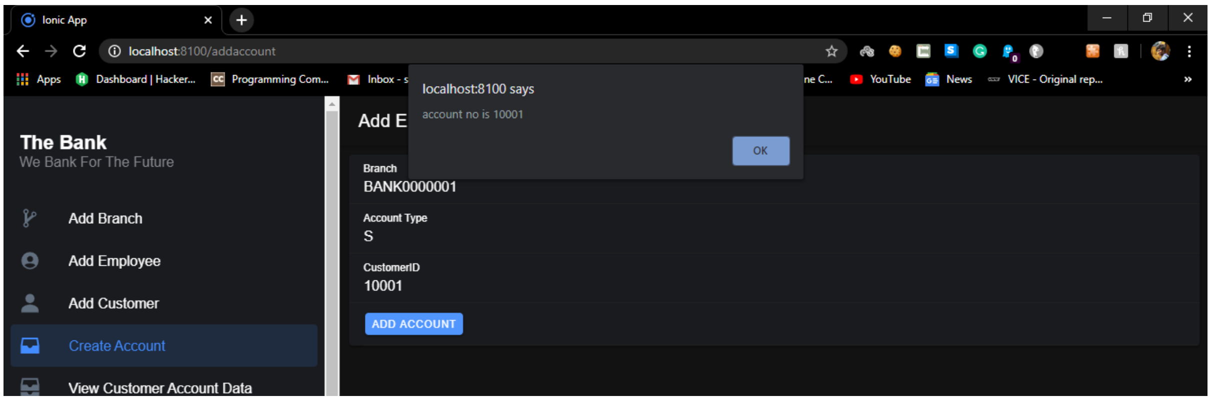
CREATING ACCOUNTS AND TRANSACTIONS

CREATING ACCOUNTS

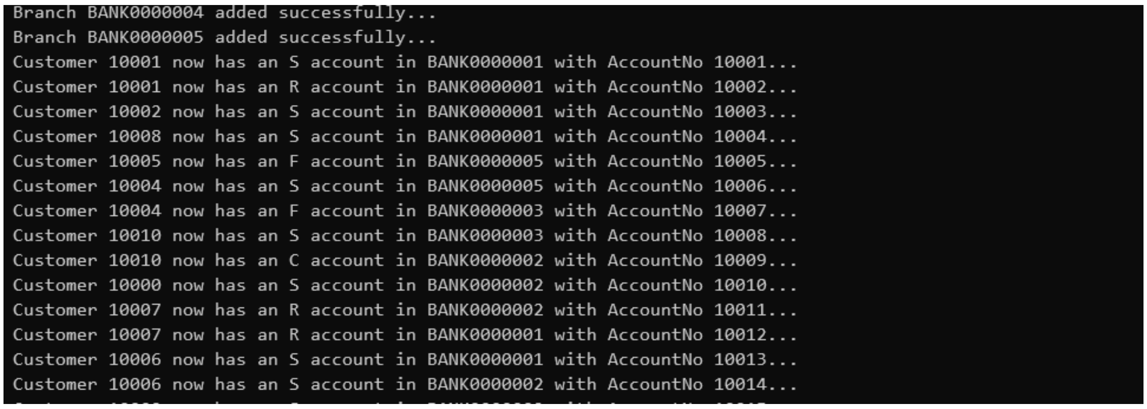
We can create a savings, current, fixed deposit and recurring deposit account for a customer by using the CustomerID of the person for whom the account is created. We proceed to create some accounts.



localhost:8100 says
account no is 10001

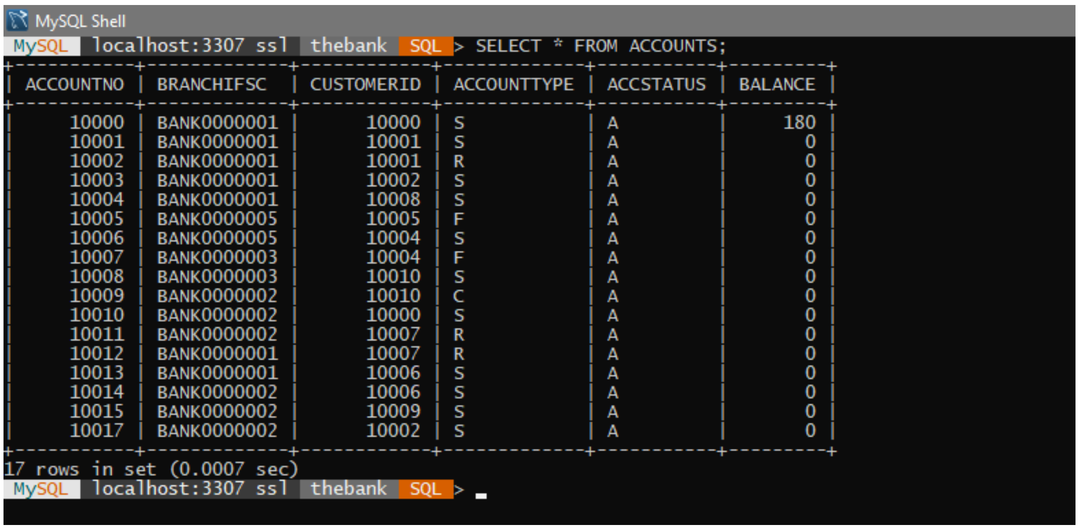
Branch
BANK0000001
Account Type
S
CustomerID
10001

We get an alert on the allotted Account number.



```
Branch BANK0000004 added successfully...
Branch BANK0000005 added successfully...
Customer 10001 now has an S account in BANK0000001 with AccountNo 10001...
Customer 10001 now has an R account in BANK0000001 with AccountNo 10002...
Customer 10002 now has an S account in BANK0000001 with AccountNo 10003...
Customer 10008 now has an S account in BANK0000001 with AccountNo 10004...
Customer 10005 now has an F account in BANK0000005 with AccountNo 10005...
Customer 10004 now has an S account in BANK0000005 with AccountNo 10006...
Customer 10004 now has an F account in BANK0000003 with AccountNo 10007...
Customer 10010 now has an S account in BANK0000003 with AccountNo 10008...
Customer 10010 now has an C account in BANK0000002 with AccountNo 10009...
Customer 10000 now has an S account in BANK0000002 with AccountNo 10010...
Customer 10007 now has an S account in BANK0000002 with AccountNo 10011...
Customer 10007 now has an R account in BANK0000001 with AccountNo 10012...
Customer 10006 now has an S account in BANK0000001 with AccountNo 10013...
Customer 10006 now has an S account in BANK0000002 with AccountNo 10014...
```

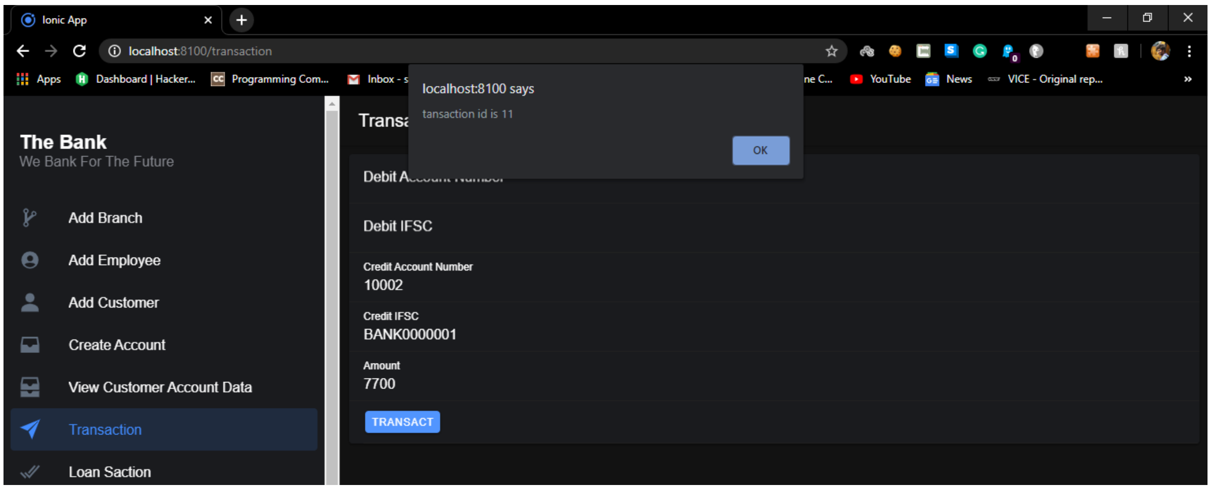
This picture shows the creation of accounts by various customer at various branches.



```
MySQL  localhost:3307 ssl  thebank  SQL > SELECT * FROM ACCOUNTS;
+-----------+-------------+------------+-------------+-----------+---------+
| ACCOUNTNO | BRANCHIFSC  | CUSTOMERID | ACCOUNTTYPE | ACCSTATUS | BALANCE |
+-----------+-------------+------------+-------------+-----------+---------+
|     10000 | BANK0000001 |      10000 | S           | A         |     180 |
|     10001 | BANK0000001 |      10001 | S           | A         |       0 |
|     10002 | BANK0000001 |      10001 | R           | A         |       0 |
|     10003 | BANK0000001 |      10002 | S           | A         |       0 |
|     10004 | BANK0000001 |      10008 | S           | A         |       0 |
|     10005 | BANK0000005 |      10005 | F           | A         |       0 |
|     10006 | BANK0000005 |      10004 | S           | A         |       0 |
|     10007 | BANK0000003 |      10004 | F           | A         |       0 |
|     10008 | BANK0000003 |      10010 | S           | A         |       0 |
|     10009 | BANK0000002 |      10010 | C           | A         |       0 |
|     10010 | BANK0000002 |      10000 | S           | A         |       0 |
|     10011 | BANK0000002 |      10007 | R           | A         |       0 |
|     10012 | BANK0000001 |      10007 | R           | A         |       0 |
|     10013 | BANK0000001 |      10006 | S           | A         |       0 |
|     10014 | BANK0000002 |      10006 | S           | A         |       0 |
|     10015 | BANK0000002 |      10009 | S           | A         |       0 |
|     10017 | BANK0000002 |      10002 | S           | A         |       0 |
+-----------+-------------+------------+-------------+-----------+---------+
17 rows in set (0.0007 sec)
MySQL  localhost:3307 ssl  thebank  SQL >
```

MAKING DEPOSIT

To make a deposit, cashier must go to the transactions page and enter the credit account number, IFSC code corresponding to the account and amount to be deposit. The transaction ID will be displayed in an alert. Triggers are responsible for updating the balance of accounts in the accounts table.



localhost:8100 says

tansaction id is 11

Debit Account Number

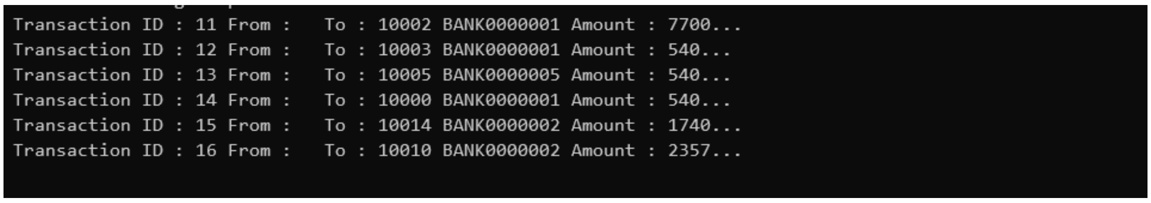
Debit IFSC

Credit Account Number: 10002

Credit IFSC: BANK0000001

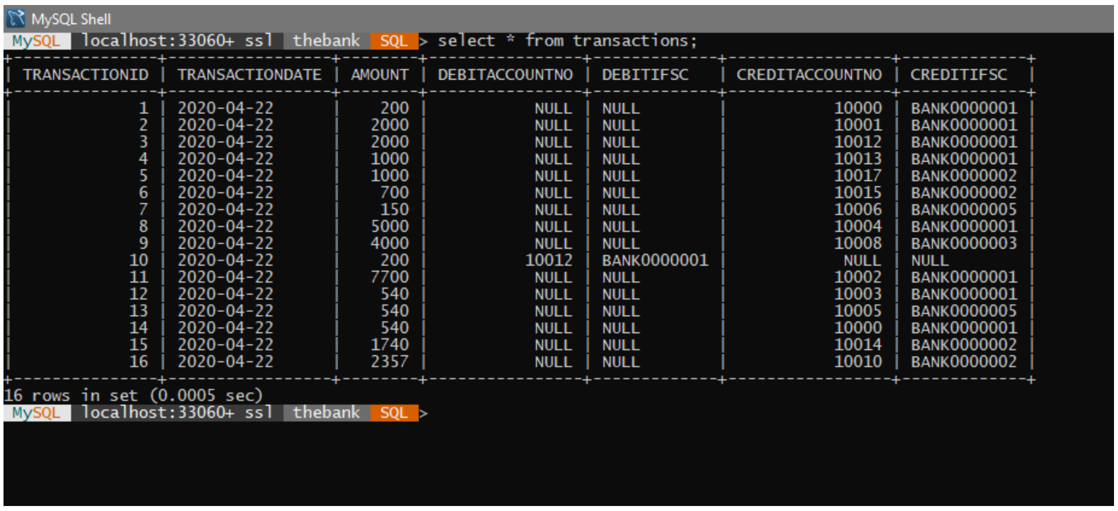
Amount: 7700

The server console entry. The empty from part implies deposits.



```
Transaction ID : 11 From :   To : 10002 BANK0000001 Amount : 7700...
Transaction ID : 12 From :   To : 10003 BANK0000001 Amount : 540...
Transaction ID : 13 From :   To : 10005 BANK0000005 Amount : 540...
Transaction ID : 14 From :   To : 10000 BANK0000001 Amount : 540...
Transaction ID : 15 From :   To : 10014 BANK0000002 Amount : 1740...
Transaction ID : 16 From :   To : 10010 BANK0000002 Amount : 2357...
```

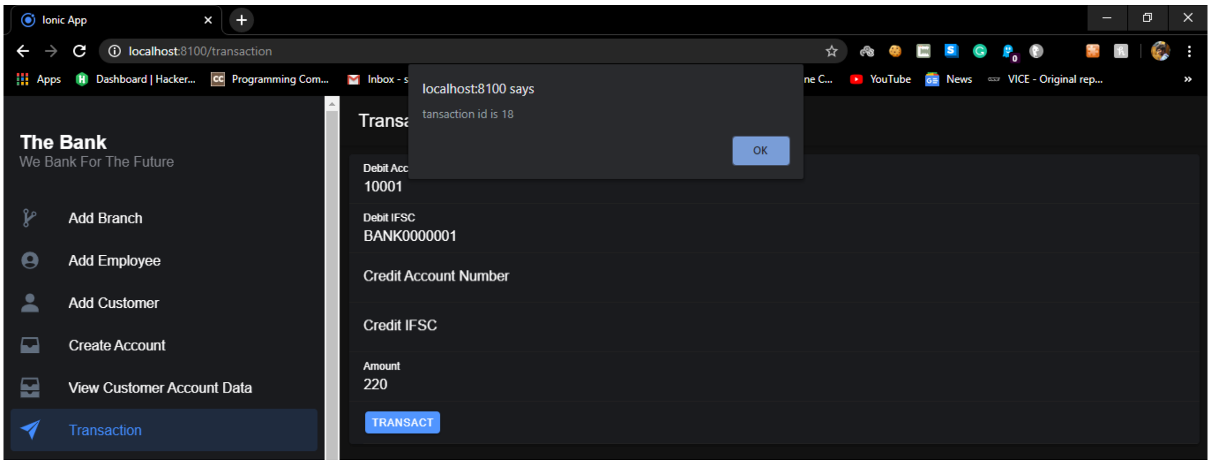
The database entries



```
MySQL Shell
MySQL  localhost:33060+ ssl  thebank  SQL > select * from transactions;
+---------------+-----------------+--------+-----------------+-------------+------------------+--------------+
| TRANSACTIONID | TRANSACTIONDATE | AMOUNT | DEBITACCOUNTNO  | DEBITIFSC   | CREDITACCOUNTNO  | CREDITIFSC   |
+---------------+-----------------+--------+-----------------+-------------+------------------+--------------+
|             1 | 2020-04-22      |    200 |            NULL | NULL        |            10000 | BANK0000001  |
|             2 | 2020-04-22      |   2000 |            NULL | NULL        |            10001 | BANK0000001  |
|             3 | 2020-04-22      |   2000 |            NULL | NULL        |            10012 | BANK0000001  |
|             4 | 2020-04-22      |   1000 |            NULL | NULL        |            10013 | BANK0000001  |
|             5 | 2020-04-22      |   1000 |            NULL | NULL        |            10017 | BANK0000002  |
|             6 | 2020-04-22      |    700 |            NULL | NULL        |            10015 | BANK0000002  |
|             7 | 2020-04-22      |    150 |            NULL | NULL        |            10006 | BANK0000005  |
|             8 | 2020-04-22      |   5000 |            NULL | NULL        |            10004 | BANK0000001  |
|             9 | 2020-04-22      |   4000 |            NULL | NULL        |            10008 | BANK0000003  |
|            10 | 2020-04-22      |    200 |           10012 | BANK0000001 |             NULL | NULL         |
|            11 | 2020-04-22      |   7700 |            NULL | NULL        |            10002 | BANK0000001  |
|            12 | 2020-04-22      |    540 |            NULL | NULL        |            10003 | BANK0000001  |
|            13 | 2020-04-22      |    540 |            NULL | NULL        |            10005 | BANK0000005  |
|            14 | 2020-04-22      |    540 |            NULL | NULL        |            10000 | BANK0000001  |
|            15 | 2020-04-22      |   1740 |            NULL | NULL        |            10014 | BANK0000002  |
|            16 | 2020-04-22      |   2357 |            NULL | NULL        |            10010 | BANK0000002  |
+---------------+-----------------+--------+-----------------+-------------+------------------+--------------+
16 rows in set (0.0005 sec)
MySQL  localhost:33060+ ssl  thebank  SQL >
```

WITHDRAWALS

To make a withdrawal the debit account number and IFSC code is entered and credit account number and IFSC code are left out. Transaction ID is displayed in an alert. Triggers update the balance of the account.



localhost:8100 says

tansaction id is 18

Debit Acc
10001

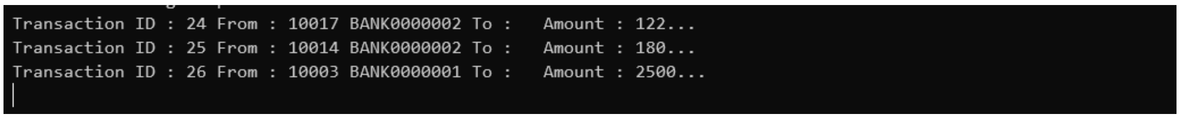
Debit IFSC
BANK0000001

Credit Account Number

Credit IFSC

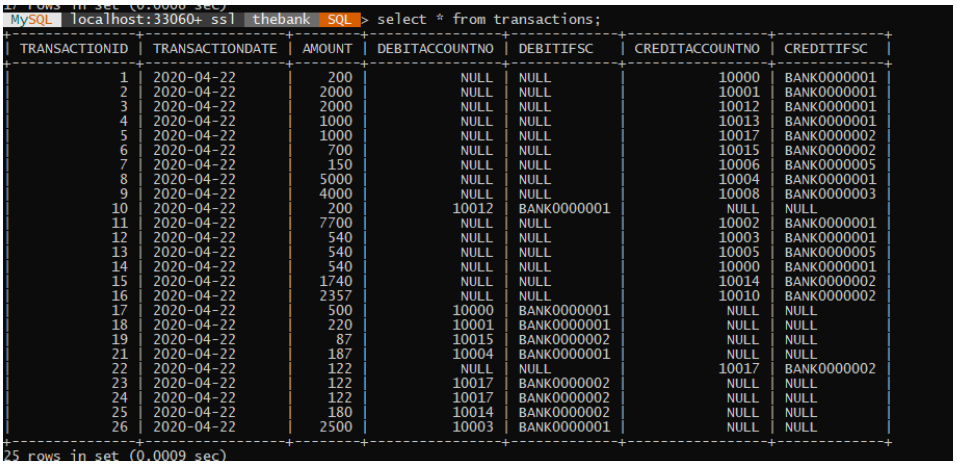
Amount
220

The console entries



```
Transaction ID : 24 From : 10017 BANK0000002 To :   Amount : 122...
Transaction ID : 25 From : 10014 BANK0000002 To :   Amount : 180...
Transaction ID : 26 From : 10003 BANK0000001 To :   Amount : 2500...
```

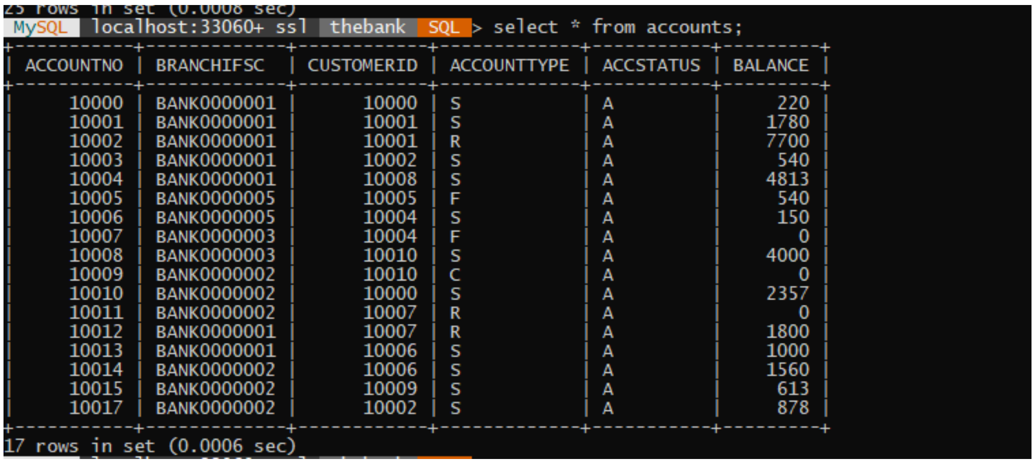
The empty To part denotes withdrawals.



```
MySQL  localhost:33060+ ssl  thebank  SQL > select * from transactions;
+---------------+-----------------+--------+-----------------+-------------+-----------------+-------------+
| TRANSACTIONID | TRANSACTIONDATE | AMOUNT | DEBITACCOUNTNO  | DEBITIFSC   | CREDITACCOUNTNO | CREDITIFSC  |
+---------------+-----------------+--------+-----------------+-------------+-----------------+-------------+
|             1 | 2020-04-22      |    200 |            NULL | NULL        |           10000 | BANK0000001 |
|             2 | 2020-04-22      |   2000 |            NULL | NULL        |           10001 | BANK0000001 |
|             3 | 2020-04-22      |   2000 |            NULL | NULL        |           10012 | BANK0000001 |
|             4 | 2020-04-22      |   1000 |            NULL | NULL        |           10013 | BANK0000001 |
|             5 | 2020-04-22      |   1000 |            NULL | NULL        |           10017 | BANK0000002 |
|             6 | 2020-04-22      |    700 |            NULL | NULL        |           10015 | BANK0000002 |
|             7 | 2020-04-22      |    150 |            NULL | NULL        |           10006 | BANK0000005 |
|             8 | 2020-04-22      |   5000 |            NULL | NULL        |           10004 | BANK0000001 |
|             9 | 2020-04-22      |   4000 |            NULL | NULL        |           10008 | BANK0000003 |
|            10 | 2020-04-22      |    200 |           10012 | BANK0000001 |            NULL | NULL        |
|            11 | 2020-04-22      |   7700 |            NULL | NULL        |           10002 | BANK0000001 |
|            12 | 2020-04-22      |    540 |            NULL | NULL        |           10003 | BANK0000001 |
|            13 | 2020-04-22      |    540 |            NULL | NULL        |           10005 | BANK0000005 |
|            14 | 2020-04-22      |    540 |            NULL | NULL        |           10000 | BANK0000001 |
|            15 | 2020-04-22      |   1740 |            NULL | NULL        |           10014 | BANK0000002 |
|            16 | 2020-04-22      |   2357 |            NULL | NULL        |           10010 | BANK0000002 |
|            17 | 2020-04-22      |    500 |           10000 | BANK0000001 |            NULL | NULL        |
|            18 | 2020-04-22      |    220 |           10001 | BANK0000001 |            NULL | NULL        |
|            19 | 2020-04-22      |     87 |           10015 | BANK0000002 |            NULL | NULL        |
|            21 | 2020-04-22      |    187 |           10004 | BANK0000001 |            NULL | NULL        |
|            22 | 2020-04-22      |    122 |            NULL | NULL        |           10017 | BANK0000002 |
|            23 | 2020-04-22      |    122 |           10017 | BANK0000002 |            NULL | NULL        |
|            24 | 2020-04-22      |    122 |           10017 | BANK0000002 |            NULL | NULL        |
|            25 | 2020-04-22      |    180 |           10014 | BANK0000002 |            NULL | NULL        |
|            26 | 2020-04-22      |   2500 |           10003 | BANK0000001 |            NULL | NULL        |
+---------------+-----------------+--------+-----------------+-------------+-----------------+-------------+
25 rows in set (0.0009 sec)
```

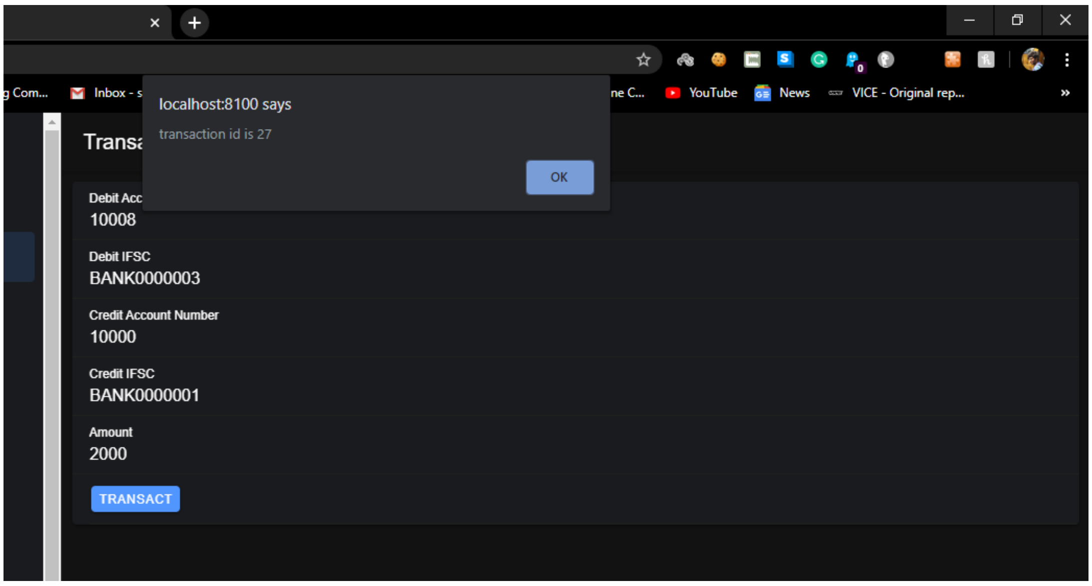
AMOUNT TRANSFER

Now let’s make a transfer from one account to another.



```
MySQL  localhost:33060+ ssl  thebank  SQL > select * from accounts;
+-----------+-------------+------------+-------------+-----------+---------+
| ACCOUNTNO | BRANCHIFSC  | CUSTOMERID | ACCOUNTTYPE | ACCSTATUS | BALANCE |
+-----------+-------------+------------+-------------+-----------+---------+
|     10000 | BANK0000001 |      10000 | S           | A         |     220 |
|     10001 | BANK0000001 |      10001 | S           | A         |    1780 |
|     10002 | BANK0000001 |      10001 | R           | A         |    7700 |
|     10003 | BANK0000001 |      10002 | S           | A         |     540 |
|     10004 | BANK0000001 |      10008 | S           | A         |    4813 |
|     10005 | BANK0000005 |      10005 | F           | A         |     540 |
|     10006 | BANK0000005 |      10004 | S           | A         |     150 |
|     10007 | BANK0000003 |      10004 | F           | A         |       0 |
|     10008 | BANK0000003 |      10010 | S           | A         |    4000 |
|     10009 | BANK0000002 |      10010 | C           | A         |       0 |
|     10010 | BANK0000002 |      10000 | S           | A         |    2357 |
|     10011 | BANK0000002 |      10007 | R           | A         |       0 |
|     10012 | BANK0000001 |      10007 | R           | A         |    1800 |
|     10013 | BANK0000001 |      10006 | S           | A         |    1000 |
|     10014 | BANK0000002 |      10006 | S           | A         |    1560 |
|     10015 | BANK0000002 |      10009 | S           | A         |     613 |
|     10017 | BANK0000002 |      10002 | S           | A         |     878 |
+-----------+-------------+------------+-------------+-----------+---------+
17 rows in set (0.0006 sec)
```

Consider we need to make a transfer of 2000 from 10008 , BANK0000003 whose balance is 4000 to 10000, BANK0000001whose balance is 220.



localhost:8100 says

transaction id is 27

Debit Acc
10008

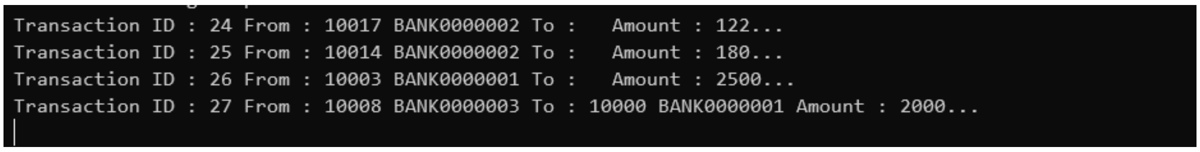
Debit IFSC
BANK0000003

Credit Account Number
10000

Credit IFSC
BANK0000001

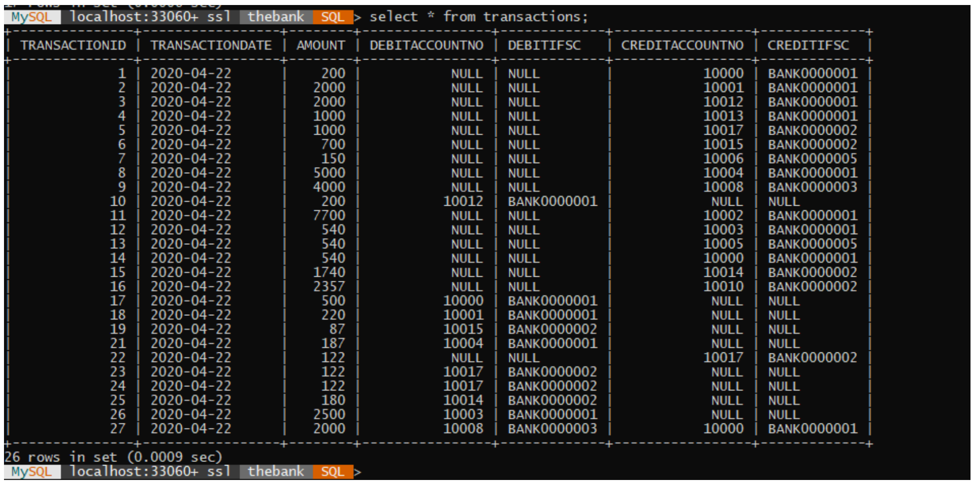
Amount
2000

We get a transaction ID of 27. On looking into the server console, we can see the record for TransactionID 27.



```
Transaction ID : 24 From : 10017 BANK0000002 To :   Amount : 122...
Transaction ID : 25 From : 10014 BANK0000002 To :   Amount : 180...
Transaction ID : 26 From : 10003 BANK0000001 To :   Amount : 2500...
Transaction ID : 27 From : 10008 BANK0000003 To : 10000 BANK0000001 Amount : 2000...
```

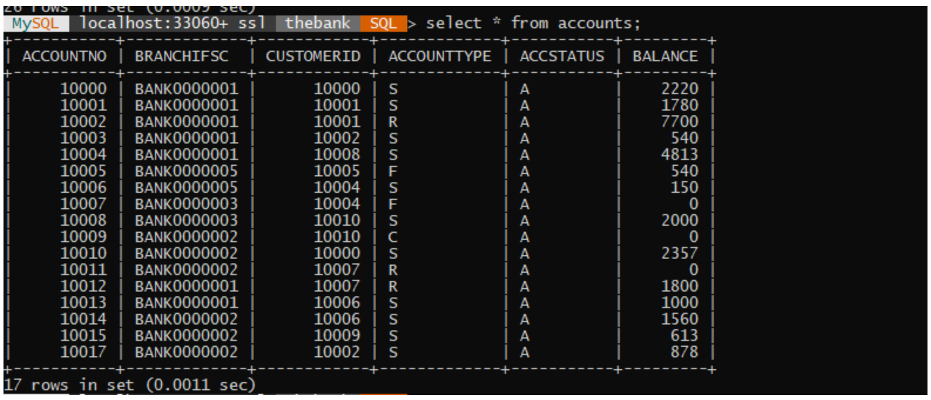
Now we look into the transactions table for transaction 27 for our record



```
 MySQL  localhost:33060+ ssl  thebank  SQL > select * from transactions;
+---------------+-----------------+--------+-----------------+-------------+-----------------+-------------+
| TRANSACTIONID | TRANSACTIONDATE | AMOUNT | DEBITACCOUNTNO  | DEBITIFSC   | CREDITACCOUNTNO | CREDITIFSC  |
+---------------+-----------------+--------+-----------------+-------------+-----------------+-------------+
|             1 | 2020-04-22      |    200 |            NULL | NULL        |           10000 | BANK0000001 |
|             2 | 2020-04-22      |   2000 |            NULL | NULL        |           10001 | BANK0000001 |
|             3 | 2020-04-22      |   2000 |            NULL | NULL        |           10012 | BANK0000001 |
|             4 | 2020-04-22      |   1000 |            NULL | NULL        |           10013 | BANK0000001 |
|             5 | 2020-04-22      |   1000 |            NULL | NULL        |           10017 | BANK0000002 |
|             6 | 2020-04-22      |    700 |            NULL | NULL        |           10015 | BANK0000002 |
|             7 | 2020-04-22      |    150 |            NULL | NULL        |           10006 | BANK0000005 |
|             8 | 2020-04-22      |   5000 |            NULL | NULL        |           10004 | BANK0000001 |
|             9 | 2020-04-22      |   4000 |            NULL | NULL        |           10008 | BANK0000003 |
|            10 | 2020-04-22      |    200 |           10012 | BANK0000001 |            NULL | NULL        |
|            11 | 2020-04-22      |   7700 |            NULL | NULL        |           10002 | BANK0000001 |
|            12 | 2020-04-22      |    540 |            NULL | NULL        |           10003 | BANK0000001 |
|            13 | 2020-04-22      |    540 |            NULL | NULL        |           10005 | BANK0000005 |
|            14 | 2020-04-22      |    540 |            NULL | NULL        |           10000 | BANK0000001 |
|            15 | 2020-04-22      |   1740 |            NULL | NULL        |           10014 | BANK0000002 |
|            16 | 2020-04-22      |   2357 |            NULL | NULL        |           10010 | BANK0000002 |
|            17 | 2020-04-22      |    500 |           10000 | BANK0000001 |            NULL | NULL        |
|            18 | 2020-04-22      |    220 |           10001 | BANK0000001 |            NULL | NULL        |
|            19 | 2020-04-22      |     87 |           10015 | BANK0000002 |            NULL | NULL        |
|            21 | 2020-04-22      |    187 |           10004 | BANK0000001 |            NULL | NULL        |
|            22 | 2020-04-22      |    122 |            NULL | NULL        |           10017 | BANK0000002 |
|            23 | 2020-04-22      |    122 |           10017 | BANK0000002 |            NULL | NULL        |
|            24 | 2020-04-22      |    122 |           10017 | BANK0000002 |            NULL | NULL        |
|            25 | 2020-04-22      |    180 |           10014 | BANK0000002 |            NULL | NULL        |
|            26 | 2020-04-22      |   2500 |           10003 | BANK0000001 |            NULL | NULL        |
|            27 | 2020-04-22      |   2000 |           10008 | BANK0000003 |           10000 | BANK0000001 |
+---------------+-----------------+--------+-----------------+-------------+-----------------+-------------+
26 rows in set (0.0009 sec)
 MySQL  localhost:33060+ ssl  thebank  SQL >
```

Finally we check for our balance update by the trigger.

After the transfer the balance of 10000, BANK0000001 must be 2220 and balance of 10008, BANK0000003 must be 2000.



```
 MySQL  localhost:33060+ ssl  thebank  SQL > select * from accounts;
+-----------+------------+------------+-------------+-----------+---------+
| ACCOUNTNO | BRANCHIFSC | CUSTOMERID | ACCOUNTTYPE | ACCSTATUS | BALANCE |
+-----------+------------+------------+-------------+-----------+---------+
|     10000 | BANK0000001 |     10000 | S           | A         |    2220 |
|     10001 | BANK0000001 |     10001 | S           | A         |    1780 |
|     10002 | BANK0000001 |     10001 | R           | A         |    7700 |
|     10003 | BANK0000001 |     10002 | S           | A         |     540 |
|     10004 | BANK0000001 |     10008 | S           | A         |    4813 |
|     10005 | BANK0000005 |     10005 | F           | A         |     540 |
|     10006 | BANK0000005 |     10004 | S           | A         |     150 |
|     10007 | BANK0000003 |     10004 | F           | A         |       0 |
|     10008 | BANK0000003 |     10010 | S           | A         |    2000 |
|     10009 | BANK0000002 |     10010 | C           | A         |       0 |
|     10010 | BANK0000002 |     10000 | S           | A         |    2357 |
|     10011 | BANK0000002 |     10007 | R           | A         |       0 |
|     10012 | BANK0000001 |     10007 | R           | A         |    1800 |
|     10013 | BANK0000001 |     10006 | S           | A         |    1000 |
|     10014 | BANK0000002 |     10006 | S           | A         |    1560 |
|     10015 | BANK0000002 |     10009 | S           | A         |     613 |
|     10017 | BANK0000002 |     10002 | S           | A         |     878 |
+-----------+------------+------------+-------------+-----------+---------+
17 rows in set (0.0011 sec)
```

So the balance has been properly updated by the triggers and they are working fine.