OOP Bank system integration test results

This document shows the data in database after running our designed test cases.

1. Customer

Here is the data in ‘customer’ table after we manually created them from UI::

```
mysql> select *
    -> from customer;
+----+--------------+-----------+
| id | name         | address   |
+----+--------------+-----------+
|  1 | Tom          | Seattle   |
|  2 | Jerry        | Kenmore   |
|  3 | Adam Redmond | Shoreline |
|  4 | Susan        | Bellevue  |
|  5 | Lisa Hiller  | Kirkland  |
|  6 | Sam Hiller   | Kirkland  |
|  7 | Alice        | Seattle   |
+----+--------------+-----------+
7 rows in set (0.00 sec)
```

2. Account and account transaction (deposit/withdraw)

   Here is the data after we
   a) created the accounts (from UI)
   b) performed the account deposit/withdraw transactions (from UI)

1) Data in ‘bankaccount’ table, which contains basic account information and balance:

```
mysql> select * from bankaccount;
+------------+------------+--------------+---------+-------------+------------+
| account_id | account_no | account_type | balance | intrst_rate | cr_date    |
+------------+------------+--------------+---------+-------------+------------+
|          1 |      20701 | checking     |     500 |        NULL | 2022-02-11 |
|          2 |      30702 | savings      |    2000 |        0.01 | 2022-02-11 |
|          3 |      20703 | checking     |     200 |        NULL | 2022-02-11 |
|         12 |      30712 | savings      |    1500 |        0.02 | 2022-02-11 |
|         13 |      30713 | savings      |     600 |        0.01 | 2022-02-11 |
|         14 |      30714 | savings      |    2200 |        0.01 | 2022-02-11 |
|         15 |      20715 | checking     |    1200 |        NULL | 2022-02-11 |
|         16 |      30716 | savings      |    1999 |        0.01 | 2022-02-11 |
|         17 |      30717 | savings      |     600 |        0.01 | 2022-02-11 |
|         18 |      30718 | savings      |    1100 |        0.01 | 2022-02-11 |
|         19 |      20719 | checking     |     600 |        NULL | 2022-02-11 |
|         20 |      30720 | savings      |     400 |        0.01 | 2022-02-11 |
|         21 |      20721 | checking     |       0 |        NULL | 2022-02-11 |
+------------+------------+--------------+---------+-------------+------------+
```

2) Data in 'acc_transaction' table (which contains transaction details for deposit/withdrawal):

```
mysql> select *
    -> from acc_transaction;
+-----+------------+------+--------+---------------------+
| id  | account_no | type | amount | cr_date             |
+-----+------------+------+--------+---------------------+
| 100 |      20721 | d    |    300 | 2022-02-12 07:49:33 |
| 101 |      20721 | w    |    600 | 2022-02-12 07:50:01 |
| 102 |      20721 | w    |    700 | 2022-02-12 07:50:21 |
| 103 |      30714 | d    |    500 | 2022-02-12 07:51:16 |
| 104 |      30714 | d    |    700 | 2022-02-12 07:51:37 |
| 105 |      20715 | d    |    800 | 2022-02-12 07:52:17 |
| 106 |      20715 | w    |    100 | 2022-02-12 07:52:32 |
| 107 |      30718 | d    |   1000 | 2022-02-12 07:53:34 |
| 108 |      20719 | d    |    500 | 2022-02-12 07:54:49 |
| 109 |      20719 | w    |    200 | 2022-02-12 07:55:03 |
| 110 |      30718 | w    |    400 | 2022-02-13 06:58:47 |
+-----+------------+------+--------+---------------------+
```

Test starts here

3) Savings account total balance by customer:

```
mysql> select c.id, acc.account_type, sum(acc.balance)
    -> from bankaccount acc,
    ->      customer c,
    ->      ass_customer_account ca
    -> where ca.customer_id = c.id
    ->   and ca.account_id = acc.account_id
    ->   and acc.account_type like  'savi%'
    -> group by c.id, acc.account_type
    -> ;
+----+--------------+------------------+
| id | account_type | sum(acc.balance) |
+----+--------------+------------------+
|  1 | savings      |             2000 |
|  2 | savings      |             2100 |
|  3 | savings      |             2200 |
|  5 | savings      |             1999 |
|  6 | savings      |             1700 |
|  7 | savings      |              400 |
+----+--------------+------------------+
6 rows in set (0.07 sec)
```

3. Employee data
   Two sample employees were created:

```
mysql> select *
    -> from employee;
+----+-------+-------+----------+
| id | name  | login | password |
+----+-------+-------+----------+
|  1 | Lucas | a0746 | 746      |
|  2 | Henry | a0747 | 747      |
+----+-------+-------+----------+
```

4. Credit card approval

1) Data in credit card application queue, after card applications have been generated (using sql).
   Note: status = ‘new’, which means they will be processed

```
mysql> select *   from card_application;
+----+-------------+--------+------+------------+------------+-------------+---------+
| id | customer_id | status | note | apply_date | apprv_date | employee_id | card_id |
+----+-------------+--------+------+------------+------------+-------------+---------+
| 62 |           1 | new    | NULL | 2022-02-16 | NULL       |        NULL |    NULL |
| 63 |           2 | new    | NULL | 2022-02-16 | NULL       |        NULL |    NULL |
| 64 |           3 | new    | NULL | 2022-02-16 | NULL       |        NULL |    NULL |
| 65 |           4 | new    | NULL | 2022-02-16 | NULL       |        NULL |    NULL |
| 66 |           5 | new    | NULL | 2022-02-16 | NULL       |        NULL |    NULL |
| 67 |           6 | new    | NULL | 2022-02-16 | NULL       |        NULL |    NULL |
+----+-------------+--------+------+------------+------------+-------------+---------+
```

2) After the successful credit card approval process, where 3 requests were rejected and 3 were approved

.Data in credit card application queue (Table 'card_applicaiton').
Note: 'Employee id' value is 2, which was because we logged as 'a0747' to run the process and this employee's id is 2.

```
mysql> select *   from card_application;
+----+-------------+----------+-----------------------------------+------------+------------+-------------+---------+
| id | customer_id | status   | note                              | apply_date | apprv_date | employee_id | card_id |
+----+-------------+----------+-----------------------------------+------------+------------+-------------+---------+
| 62 |           1 | approved | NULL                              | 2022-02-16 | 2022-02-16 |           2 |      28 |
| 63 |           2 | approved | NULL                              | 2022-02-16 | 2022-02-16 |           2 |      29 |
| 64 |           3 | approved | NULL                              | 2022-02-16 | 2022-02-16 |           2 |      30 |
| 65 |           4 | rejected | Rejected due to total savings<2000 | 2022-02-16 | 2022-02-16 |           2 |    NULL |
| 66 |           5 | rejected | Rejected due to total savings<2000 | 2022-02-16 | 2022-02-16 |           2 |    NULL |
| 67 |           6 | rejected | Rejected due to total savings<2000 | 2022-02-16 | 2022-02-16 |           2 |    NULL |
+----+-------------+----------+-----------------------------------+------------+------------+-------------+---------+
```

.Data in 'creditcard' table:

Note:

1) 3 credit cards were created.
2) The 'id' values match 'card_id' in 'card_applicaiton' table
3) Employee id value was 2, because we logged as 'a0747' to run the process.

```
mysql> select *   from creditcard;
+----+----------+---------------+------------+-------------+-----------------+--------------+-------------+------------+
| id | card_no  | bank_name     | exp_date   | customer_id | cardholder_name | credit_limit | employee_id | cr_date    |
+----+----------+---------------+------------+-------------+-----------------+--------------+-------------+------------+
| 28 | 88000762 | New Life Banks | 2023-02-16 |           1 | Tom             |         1000 |           2 | 2022-02-16 |
| 29 | 88000763 | New Life Banks | 2023-02-16 |           2 | Jerry           |         1000 |           2 | 2022-02-16 |
| 30 | 88000764 | New Life Banks | 2023-02-16 |           3 | Adam Redmond    |         1000 |           2 | 2022-02-16 |
+----+----------+---------------+------------+-------------+-----------------+--------------+-------------+------------+
```