← Laboratory work #10

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Please write SQL queries for following tasks and save as .sql file.
1. CREATE TABLE accounts (id primary key, name varchar(20) not null, age int, balance int not null).

```
id| name    | age | balance
1 | Anna    | 35  |  32000
2 |Nurlam   | 25  |  45000
3 | Adam    | 21  |  35000
4 |Mishel   | 19  |  65000
5 | Dana    | 27  |  75000
6 |Kirill   | 22  |  95000
7 |Janibek  | 24  |  37000
```

2. The first user is added to the balance of 1000, the second takes 20000 rubles and the third - 3000, and then the transaction is canceled.
3. Suppose, you want to transfer 1500 from Kirill's account to Anna's account. However, you accidentally send the money to Adam's account instead Anna's. And you want to rollback the whole transaction.
4. Dana closed her account, but then changed her mind and you need to restore her account and change the balance to 70000.
5. The balance of the 3rd user debited amount 3000, a mark is put and operations with the 1st and 2nd user add 1000 to each. Further, everything returns to the set label, after which the balance of the 1st and 2nd user will not change.
6. User User_1 opens a transaction, executes the following request:
BEGIN;
UPDATE accounts
SET balance = balance * 1.05;

A second user (User_2) executes without opening a transaction almost the same request:

UPDATE accounts
SET balance = balance * 1.1;

What do you think will happen in the following situations:

6.1. What result will User_2 get if User_1 leaves the transaction open (i.e. does not confirm the transaction / does not roll back the changes)?
What User_1 will see on request:

SELECT balance FROM accounts LIMIT 1;

6.2. What happens if User_1 does ROLLBACK? What results will User_2 get?

6.3. What happens if User_1 does COMMIT? What results will User_2 get?