

Program 1 - Trigger for calculating and updating the total loan

This program contains two trigger that can calculate the total loan of the customer whenever they add new amount on their loan account. Also another trigger program updates the customer's total loan amount whenever they changed their account to another branch.

To run this trigger on the database, run the load.sql from Assignment 2 on the database since that file also calls out the trig.sql file to create the trigger as soon as all tables are created.

trig.sql - trigger source code

```
create or replace trigger calculateTotalLoan
before insert or update or delete of amount on loan
for each row
begin
    if inserting then
        update bank_branch
        set total_loan = total_loan + :NEW.amount
        where brcode = :New.bCode and branchNo = :New.bNum;

    elsif updating then
        update bank_branch
        set total_loan = total_loan + :NEW.amount - :OLD.amount
        where brcode = :OLD.bCode and branchNo = :OLD.bNum;

    else
        update bank_branch
        set total_loan = total_loan - :OLD.amount
        where brcode = :OLD.bCode and branchNo = :OLD.bNum;

    END IF;
END;
/
```

```
create or replace trigger updateTotalLoan
before update of bNum on loan
for each row
begin
    update bank_branch
    set total_loan = total_loan + :NEW.amount
    where brcode = :New.bCode and branchNo = :New.bNum;

    update bank_branch
```

```
set total_loan = total_loan - :OLD.amount
where brCode = :OLD.bCode and branchNo = :OLD.bNum;
END;
/
```