

# Task 1

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```
create database lab09;

use lab09

select 0 / 0;

create table t (
  i int primary key,
  d double
);

select nothing from t;

delimiter //

create procedure selectException ()
begin
  declare exit handler for 1054 select '未知列名';
  select nothing from t;
end;//

delimiter ;

call selectException();

delimiter //

create procedure insertError ()
begin
  declare exit handler for 1062 select '主键冲突';
  start transaction;
  insert into t values (2, 0.2);
  -- 主键冲突
  insert into t values (2, 0.2);
  insert into t values (3, 0.3);
end;//

delimiter ;

call insertError();

start transaction;
select 'Begin T1';
insert into t values (1, 0.1);
savepoint S1;
select 'Save S1';
```

```
insert into t values (2, 0.2);
savepoint S2;
select 'Save S2';
insert into t values (3, 0.3);
rollback to S1;
commit;
```

## Task 2

```
create table Account (
    name varchar(30) primary key,
    deposit int,
    check (deposit >= 1)
);

delimiter //

create procedure openAccount (accountName varchar(30), accountDeposit int)
begin
    declare exit handler for 3819 select '存款不能少于1元';
    insert into Account values (accountName, accountDeposit);
end;//

create procedure saveMoney (accountName varchar(30), money int)
begin
    update Account set deposit = deposit + money where name = accountName;
end;//

create procedure withdrawMoney (accountName varchar(30), money int)
begin
    declare exit handler for 3819 select '取款后的存款不能少于1元';
    update Account set deposit = deposit - money where name = accountName;
end;//

create procedure transferMoney (fromAccount varchar(30), toAccount varchar(30), money int)
begin
    declare exit handler for 3819
    begin
        select '取款后的存款不能少于1元';
        rollback;
    end;
    start transaction;
    update Account set deposit = deposit - money where name = fromAccount;
    update Account set deposit = deposit + money where name = toAccount;
    commit;
end;//

delimiter ;
```

```
call openAccount('Fu', 1);  
  
call openAccount('Huang', 1);  
  
call saveMoney('Huang', 3999);  
  
call withdrawMoney('Huang', 2000);  
  
call transferMoney('Huang', 'Fu', 1000);  
  
call transferMoney('Huang', 'Fu', 1000);
```