

Relational schema

System user (username , password)

Customer (national id, name , username , password,age , address)

Customer(username) references to system_user(username)

Customer(password) references to system_user(password)

Banker (banker id , name , position ,salary, username , address)

Customer(username) references to system_user(username)

Customer(password) references to system_user(password)

Admin (admin id, name , username, age, address)

Customer(username) references to system_user(username)

Customer(password) references to system_user(password)

Bank account(account no , currency ,status, amount , type ,national id,username)

National id references national id in customer

Bankaccount(username) references to customer(username)

Bank req (username ,national id , req id , state)

Bankaccount(username) references to customer(username)

National id references national id in customer

Req id references account no bank

Bank transfer (transfer id , amount ,sender id , receiver id)

Sender id references national id in customer

Receiver_id references national id customer

Own account (transfer id , credit no)

External (transfer id , BAN)

Domestic (transfer id)

Bill payment (transfer id , type of bill, method)

International (transfer id , IBAN)

Donations (transfer id , method , Organization name)

Credit card (card no ,amount , type ,points, account no)

Account no references account no in bank account

Cheques (cheques id , start date , end date , account no)

Account no references account no in bank account

Loan (loan id , total amount , remainder amount , due date ,loan type , due loan amount ,
national id , account no)

National_id references national_id in bank account

Account no references account no in bank account

certificate (national id ,certificate id ,amount, percentage, paid interest duration, period)

certificate Nationalid References national id in customer National_Id