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Group: زندگی من برای ایوراست

SQL Project Documentation

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1. Case Study

The database is to handle the actions of an Internet Bank, storing information about account holders and accounts, and keeping logs of balance updates in accounts as well as daily interest gains.

Information stored about the account holders are an ID number, name, birthdate, telephone number, email, and a pin number. The ID number is unique for the account holder, and is automatically assigned to the account holder by the system. The pin number is four numbers long, and the account holder chooses it him/herself.

Information stored about the accounts are an ID number, and balance. The ID number is unique for the account, and is automatically assigned to the account by the system. The balance is set when the account is created.

An account holder can own many accounts. An account can be owned by multiple account holders.

Information stored in the log about balance updates are an ID number, account ID, amount of money that was lost or gained, and the time when the transaction happened. The ID number is unique, and is automatically generated by the system.

Information stored in the log about daily interest gain are an ID number, account ID, the calculated interest, and date. The ID number is unique, and is automatically generated by the system.

2. Conceptual Model

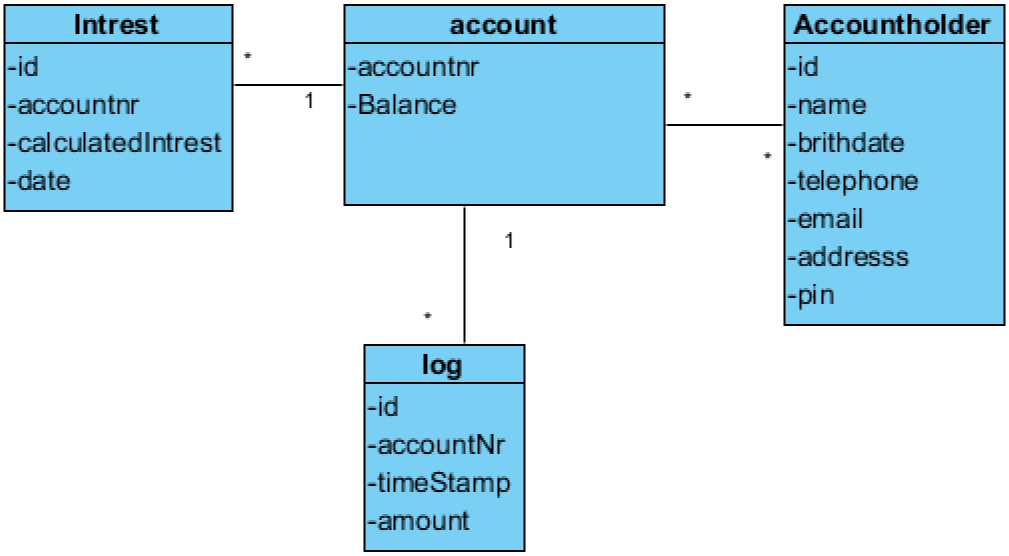
2.1 Possible entities

Account, Accountholder, log

2.2 Relationship Matrix

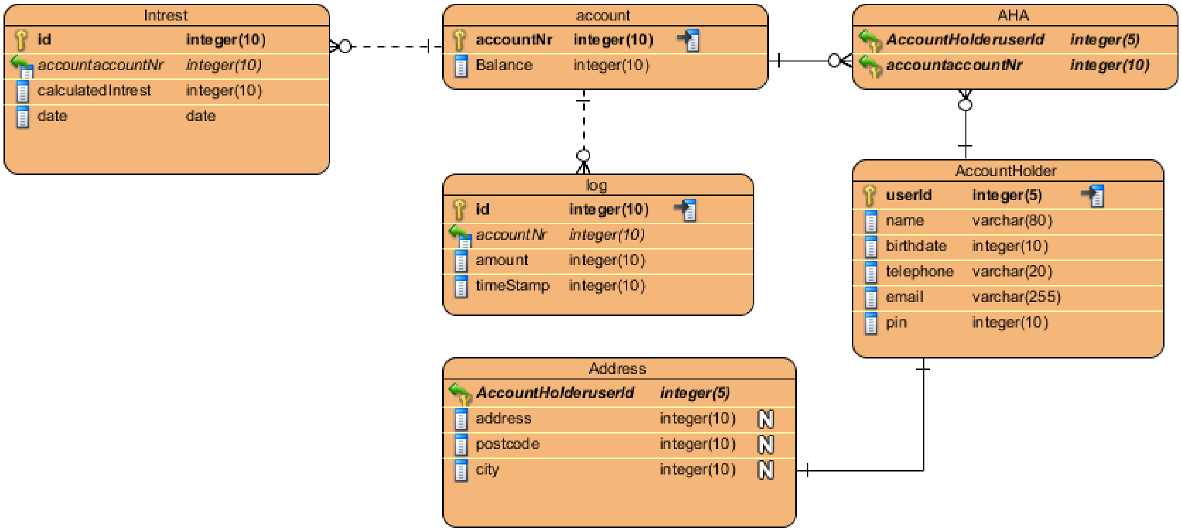
	Account Holder	Account	log	Intrest
Account Holder		have accses to many		
Account			logs any chages in Account	calcultes the account Intrest
log				
Intrest				

2.3 Conceptual ER model



3. Logical Model

3.1 ER Diagram



4. Physical Model

4.1 SQL DLL

https://github.com/Luviz/dbProject/tree/master/SQL
If you unable to access the files needed please contact Bardia Jedi or Daniel Medina

All the database source material is located here

4.2 APIs

```
addAccountHolder @name:varchar @bdate:int ,@telephone:varchar ,email:varchar,
pin int
      Creates a new Accountholder.

openAccount @ahID:int
      Opens a new account.


confirmLoginAccess @AHid int ,@AHpin int ,@Aid int, @result int OUTPUT
      Looks and checks if the all the statements are right. If they are right,
@result == 1, else == 0.
      //used only by the ATM system!

login @AHid int ,AHpin int, @result int OUTPUT
      return == 1 if true 0 if false

linkAccount @AHid int, @Aid int
      Adds a relation between the AH and the account into the accountLog
table.


takeOutMoney @Aid int ,@amount int ,@result int OUTPUT
      Check if the user can withdraw money from the account. If so, return the
values of reduction back.
```