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Project proposal

Bank management system

Project description

Bank Management System will be a Windows desktop application designed by Ksenia Studilina and Saulo Moreira da Silva in C# programming language using the Visual Studio software. The main goal of this intended program is to facilitate management of all customer/account/transaction related activities performed by a branch representative.
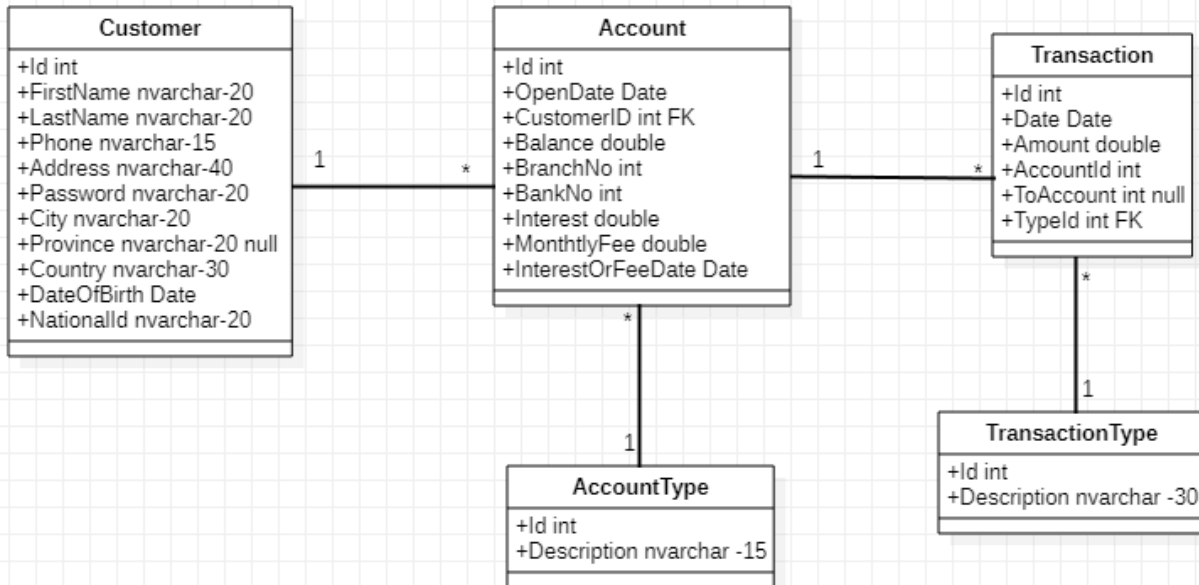
The software in its first version will contain four main sections: 1) Manage clients, 2) Manage Accounts, 3) Perform Transactions and 4) Generate reports. The first section will allow the branch representative to create new profiles for the bank (from new customers), as well as update any information (like an address change, for example) or even delete a client who is no longer doing business with the bank.

In the second section (Manage Accounts), the branch representative will have the power to add a new account to the customer's profile or update anything related to it; while in the third section, through client's authorization, he or she would be able to perform transactions such as deposit, withdrawal and transfer to another account. Finally, the last section will be useful to generate reports such as Statement and possibly also credit score, among others.
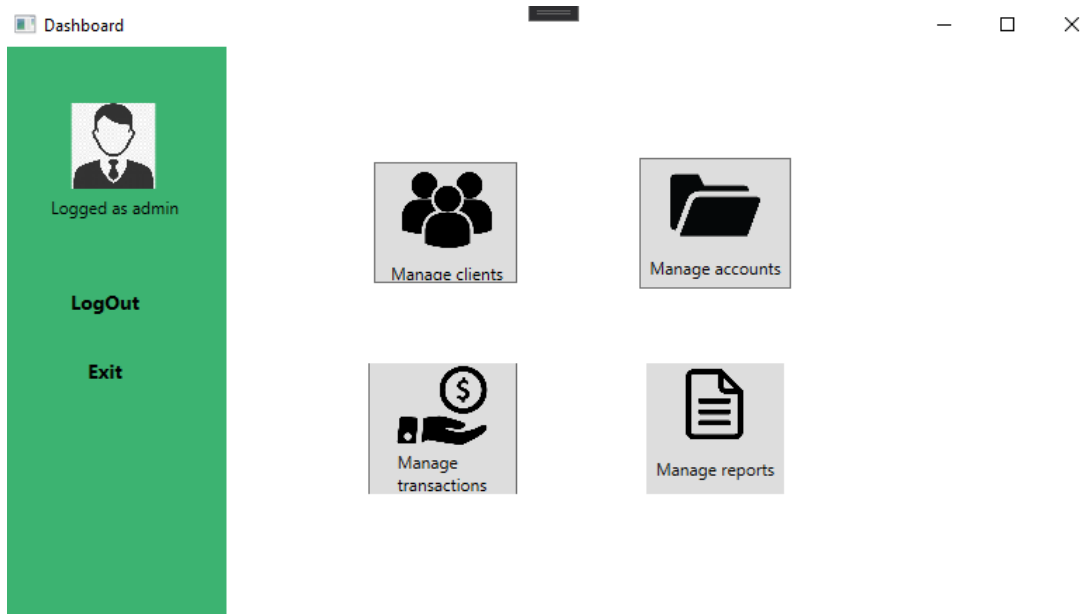
Technologies used

- WPF, C#
- SQL Database (Azure)
- Entity Framework
- StackPanel
- iText 5 .NET PDF library
- Printing using WPF
- Installer

Database design

Customer
+Id int
+FirstName nvarchar-20
+LastName nvarchar-20
+Phone nvarchar-15
+Address nvarchar-40
+Password nvarchar-20
+City nvarchar-20
+Province nvarchar-20 null
+Country nvarchar-30
+DateOfBirth Date
+NationalId nvarchar-20

Account
+Id int
+OpenDate Date
+CustomerID int FK
+Balance double
+BranchNo int
+BankNo int
+Interest double
+MonthtlyFee double
+InterestOrFeeDate Date

Transaction
+Id int
+Date Date
+Amount double
+AccountId int
+ToAccount int null
+TypeId int FK

AccountType
+Id int
+Description nvarchar -15

TransactionType
+Id int
+Description nvarchar -30

Application mockups

Dashboard (main window)

Dashboard

Logged as admin

LogOut

Exit

Manage clients

Manage accounts

Manage transactions

Manage reports

Manage customers

Add new customer

Manage accounts

Manage transactions

Search customer by national id: [   ] Find

Customer found: Thomas Chapais, national id 45678TY

Customer accounts:

Id	Account type	Date of opening	Balance

Deposit   Transfer   Withdraw   Close

Transfer

Account summary

Account id: 1720

Owner: Thomas Chapais

Account type: Checking

Balance: $ 2349.20

Transfer

Transfer to: Account Id

Amount: $

Transfer