Interview Exercise

The purpose of this exercise is to demonstrate your ability to turn business requirements into software, your ability to model a business problem using object-oriented programming, and your familiarity with C# and the .NET framework.

While we expect you to have professional experience in working with SQL Server and ASP.NET,
this exercise should use neither. The application should be a simple console application without any database dependencies. Data can be in-memory, xml file, or spreadsheet. What we are most interested in seeing is your ability to produce professional, maintainable code in the heart of the application.

Please develop your solution using Visual Studio 2010 (or 2008). You may use any additional tools or frameworks that you find helpful, but your finished Visual Studio solution file should compile without any errors.

Scenario
A bank needs an application developed that will serve its customers and its owners.

Customers should be able to get their current balance, withdraw money from their account, deposit money into their account and transfer money to another account. By default, all account balances should be displayed in U.S. dollars. However, customers should also be able to retrieve their account balance in a foreign currency. This should include a conversion rate, rather than just changing the currency symbol. For the purposes of this project, a single foreign currency, such as the Euro, will suffice.

Bank owners need the ability to get the balance of any customer, get a list of the top five customers with the largest balances, a list of the bottom five customers with the smallest balances, as well as the ability to get an account balance on a particular date.

For simplicity's sake, do not worry about authentication or securing various parts of your solution.

Your project will be reviewed by our team leads. Candidates who meet / exceed our expectations will be invited for an onsite interview.