Design Patterns

Laboratory 4

Problem:

Bank Management Propose a model for managing a bank. An empirical model for the system contains the following entities:

    a) Bank – that contains a list of clients and a bank code

    b) Bank account - that has a number and an amount of money

    c) Client – that has a name, address, a list of accounts (minimum one, maximum five)

The accounts can have RON and EUR currency. For RON accounts the interest is calculated as follow: 0.3 RON/day for amounts less than 500 RON and 0.8 RON/day for bigger amounts. The EUR accounts the interest is 0.1 EUR/day. The allowed operations on account are depositing and retrieving money.

REQUIREMENTS:

1. Choose one of the following futures in order to implement in current and next laboratory
    a) Provide a GUI interface for the bank application from the client point of view
    b) Provide a GUI interface for the bank application from bank officer point of view
    c) Create a data base for the application, link the existing classes to application
    d) Create a client/server application using RMI in order to allow clients to process operations to bank. Bank is the server and the clients are the client programs.
    e) Add a new feature to banc application, client card, use decorator pattern combined with factory method in order to be able to create different offers of cards for client or to be able to create customized offers/client
    f) Add a new feature to back application, client loan, a client can loan an amount of money from the bank and the back is offering information about loan types and details about it's own loan.
2. Design the modification necessary to be done in the application in order to implement the desired functionality (a-f)
3. Start implementation. Present partial work at next laboratory.