

# Java Object-Oriented Concepts Unit

## Lesson 8 Lab 2: Bank Account Manager



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## Lesson 8 Lab 2: Bank Account Manager

### Requirements

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Design a program which acts as an ATM machine. The user can specify a PIN and it will show them a menu of their account types (checking and savings). Allow the user to deposit or withdraw money from a selected account type. Be sure to check that they cannot withdraw more money than they have. If the user deposits more than \$10,000, the program should let the user know that it has contacted the bank manager to clear the deposit and will not allow them to withdraw any of that money.

### Tips

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This is a classic example of class inheritance. Create an Account class which will serve as the basis of both types of accounts. Checking and savings accounts are both accounts, right? They will inherit from the base Account class. Keep basic functionality in the base class with methods like deposit() and withdraw(), and then override them in the specific account types. A savings account may also have interest applied or a penalty for withdrawing any money. Take this into account when you override those methods. The variable "balance" would also be a protected member of the base class.

### Phase 2

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Allow the checking account to go into negative and apply an overdraft fee of \$10. Don't let the user go into overdraft protection over \$100. You could also prevent the user from making multiple withdraws if they are already overdrawn.