

DEBORA CORREA BATISTA BASTOS
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TOOL: Lucidchart

ICA-2-2

(Savings Account Class)

Design a UML Class Diagram for the Savings Account class.

Create class SavingsAccount.

Use a static variable annualInterestRate to store the annual interest rate for all account holders.

Each object of the class contains a private instance variable savingsBalance indicating the amount the saver currently has on deposit.

Provide method calculateMonthlyInterest to calculate the monthly interest by multiplying the savingsBalance by annualInterestRate divided by 12â€”this interest should be added to savings-Balance. Provide a static method modifyInterestRate that sets the annualInterestRate to a new value.

Write a program to test class SavingsAccount (SavingsAccountTest.java).

Instantiate two savingsAccount objects, saver1 and saver2, with balances of \$2000.00 and \$3000.00, respectively.

Set annualInterestRate to 4%, then calculate the monthly interest for each of 12 months and print the new balances for both savers. Next, set the annualInterestRate to 5%, calculate the next monthâ€™s interest and print the new balances for both savers.

