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**Problem Statement –**

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 12this interest should be added to savingsBalance. Provide a static

method modifyInterestRate that sets the annualInterestRate to a new value.

Write a program to test class SavingsAccount. Instantiate two savingsAccount objects,

saver1 and saver2, with balances of Rs 2000.00 and Rs 3000.00, respectively. Set

annualInterestRate to 4%, then calculate the monthly interest and print the new balances for both

savers. Then set the annualInterestRate to 5%, calculate the next month&#39;s interest and print the new balances for both savers.

**Program –**

public class SavingAccount{

static double annualInterestRate=0.04;

private double savingBalance;

public double getSavingBalance() {

return savingBalance;

}

public SavingAccount(int s){

savingBalance=s;

}

public double calculateMonthlyInterest(){

double MI = (savingBalance\*annualInterestRate)/12;

savingBalance+=MI;

return MI;

}

public static void modifyInterestRate(double i){

annualInterestRate=i;

}

public static void main(String[] args) {

SavingAccount saver1 = new SavingAccount(2000);

SavingAccount saver2 = new SavingAccount(3000);

System.out.println("User 1 old balance is : "+saver1.getSavingBalance()+" User 1 new balance is : "+(saver1.getSavingBalance()+saver1.calculateMonthlyInterest()));

System.out.println("User 2 old balance is : "+saver2.getSavingBalance()+" User 2 new balance is : "+(saver2.getSavingBalance()+saver2.calculateMonthlyInterest()));

System.out.println("Updating Annual Interest Rate....");

modifyInterestRate(0.05);

System.out.println("After updating Annual Interest rate ");

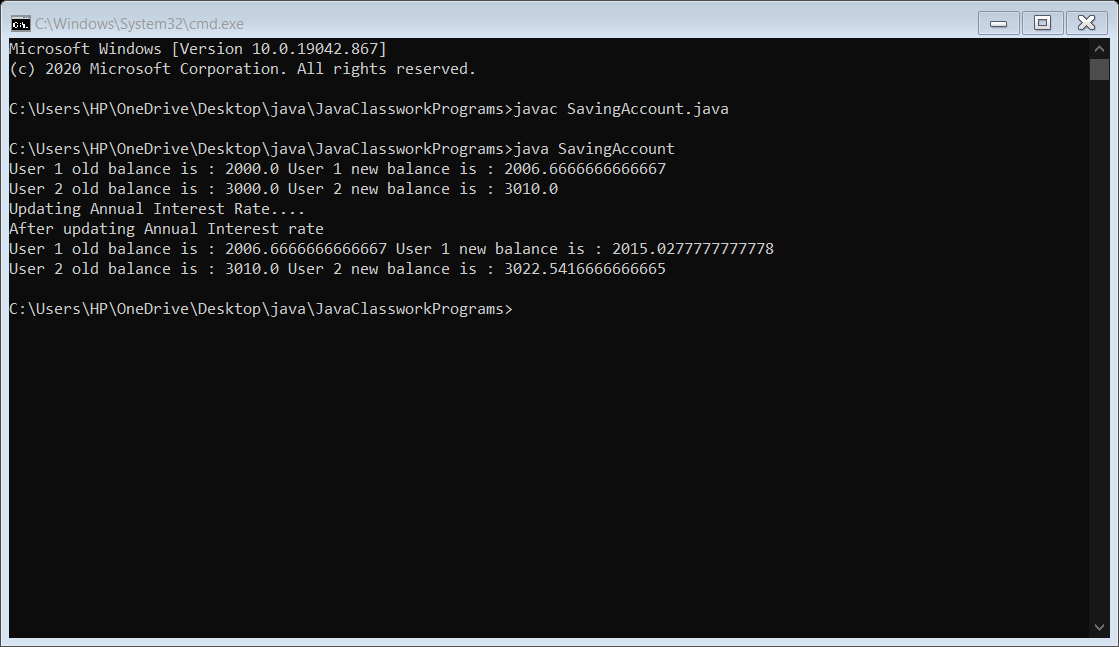
System.out.println("User 1 old balance is : "+saver1.getSavingBalance()+" User 1 new balance is : "+(saver1.getSavingBalance()+saver1.calculateMonthlyInterest()));

System.out.println("User 2 old balance is : "+saver2.getSavingBalance()+" User 2 new balance is : "+(saver2.getSavingBalance()+saver2.calculateMonthlyInterest()));

}

}

**Output –**

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