

J BankStatic.java 4 X

J BankStatic.java > Language Support for Java(TM) by Red Hat > BankAccount > withdraw(double)

```
1  class BankAccount {
2      String accountNumber;
3      String customerName;
4      double balance;
5
6      static int accountCount = 0;
7      static double interestRate;
8
9      static{
10         interestRate = 4.5;
11         System.out.println("Static block: Initial Interest rate set to "+ interestRate + "%");
12     }
13
14     BankAccount(String accountNumber, String customerName, double initialBalance) {
15         this.accountNumber = accountNumber;
16         this.customerName = customerName;
17         this.balance = initialBalance;
18         accountCount++;
19     }
20
21     void deposit (double amount){
22         if (amount > 0){
23             balance+= amount;
24         } else {
25             System.out.println("Cannot deposit non-deposit amount: "+amount);
26         }
27     }
28
29     void withdraw (double amount){
30         if (amount <= 0){
31             System.out.println("Cannot withdraw non-deposit amount: "+amount);
32         } else if (amount > balance) {
33             System.out.println("Insufficient balance. Requested: "+amount+ ", Available" + balance);
34         } else {
35             balance -= amount;
36         }
37     }
38
39     void addInterest (double years) {
40         if (years <= 0){
41             System.out.println("No time passed, no interest added.");
42             return;
43         }
44         double r = interestRate / 100.00;
45         balance += balance * r * years;
46     }
47 }
```

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```
1  class BankAccount {  
2  
3      static void changeInterestRate(double newRate) {  
4          if (newRate < 0) {  
5              System.out.println("Interest rate cannot be negative: " + newRate);  
6          } else {  
7              interestRate = newRate;  
8          }  
9      }  
10  
11      static int getAccountCount() {  
12          return accountCount;  
13      }  
14  
15      static double getInterestRate() {  
16          return interestRate;  
17      }  
18  
19      void displayDetails() {  
20          System.out.println(  
21              "Account Number: " + accountNumber  
22              + " | Customer Name: " + customerName  
23              + " | Balance: " + String.format(format:"%.2f",balance)  
24          );  
25      }  
26  }  
27  
28  class BankStatic {  
29      Run | Debug | Run main | Debug main  
30      public static void main(String[] args) {  
31          System.out.println("Creating bank accounts...");  
32  
33          BankAccount acc1 = new BankAccount(accountNumber:"ACC1001", customerName:"Ram", initialBalance:1000.0);  
34          BankAccount acc2 = new BankAccount(accountNumber:"ACC1002", customerName:"Sita", initialBalance:2000.0);  
35          BankAccount acc3 = new BankAccount(accountNumber:"ACC1003", customerName:"Laxman", initialBalance:1500.0);  
36  
37          System.out.println();  
38          System.out.println("Number of accounts created: " + BankAccount.getAccountCount());  
39  
40          System.out.println("Initial account details:");  
41          acc1.displayDetails();  
42          acc2.displayDetails();  
43          acc3.displayDetails();  
44  
45          System.out.println("\nAdding interest based on interest rate - " + BankAccount.getInterestRate() + "%");  
46          acc1.addInterest(years:0.5);  
47          acc2.addInterest(years:1.0);  
48          acc3.addInterest(years:1.5);  
49      }
```

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```
73  class BankStatic {
74      public static void main(String[] args) {
75          System.out.println("Balances after interest:");
76          acc1.displayDetails();
77          acc2.displayDetails();
78          acc3.displayDetails();
79
80          System.out.println("\nChanging interest rate to 5.5%");
81          BankAccount.changeInterestRate(newRate:5.5);
82
83          System.out.println("New interest rate: " + BankAccount.getInterestRate() + "%");
84
85          System.out.println("Adding interest again with new rate:");
86          acc1.addInterest(years:0.5);
87          acc2.addInterest(years:1.0);
88          acc3.addInterest(years:1.5);
89
90          System.out.println("Final balances: ");
91          acc1.displayDetails();
92          acc2.displayDetails();
93          acc3.displayDetails();
94      }
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```

PROBLEMS 15 OUTPUT DEBUG CONSOLE TERMINAL

PROBLEMS 45 CONTACT DEBUG CONSOLE TERMINAL

Number of accounts created: 3

Initial account details

Initial account details:
Account Number: ACC1001| Customer Name: Ram| Balance: 1000.00
Account Number: ACC1002| Customer Name: Sita| Balance: 2000.00
Account Number: ACC1003| Customer Name: Laxman| Balance: 1500.00

Adding interest based on interest rate - 4.5%

Balances after interest:

Account Number: ACC1001| Customer Name: Ram| Balance: 1022.50
Account Number: ACC1002| Customer Name: Sita| Balance: 2090.00
Account Number: ACC1003| Customer Name: Laxman| Balance: 1601.25

Changing interest rate to 5.5%

New interest rate: 5.5%

Adding interest again with new rate:
Final value

Final balances:

Account Number: ACC1001	Customer Name: Ram	Balance: 1050.62
Account Number: ACC1001	Customer Name: Ram	Balance: 1050.62
Account Number: ACC1002	Customer Name: Sita	Balance: 2204.95
Account Number: ACC1002	Customer Name: Sita	Balance: 2204.95
Account Number: ACC1003	Customer Name: Laxman	Balance: 1733.35

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