

BankStatic.java 4 X

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 }
```

BankStatic.java 4 X

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

```
1 class BankAccount {
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47 static void changeInterestRate(double newRate) {
48     if (newRate < 0) {
49         System.out.println("Interest rate cannot be negative: " + newRate);
50     } else {
51         interestRate = newRate;
52     }
53 }
54
55
56 static int getAccountCount() {
57     return accountCount;
58 }
59
60 static double getInterestRate() {
61     return interestRate;
62 }
63
64 void displayDetails() {
65     System.out.println(
66         "Account Number: " + accountNumber
67         + "| Customer Name: " + customerName
68         + "| Balance: " + String.format(format:"%.2f",balance)
69     );
70 }
71 }
72
73 class BankStatic {
74     Run | Debug | Run main | Debug main
75     public static void main(String[] args) {
76         System.out.println(x:"Creating bank accounts...");
77
78         BankAccount acc1 = new BankAccount(accountNumber:"ACC1001", customerName:"Ram", initialBalance:1000.0);
79         BankAccount acc2 = new BankAccount(accountNumber:"ACC1002", customerName:"Sita", initialBalance:2000.0);
80         BankAccount acc3 = new BankAccount(accountNumber:"ACC1003", customerName:"Laxman", initialBalance:1500.0);
81
82         System.out.println();
83         System.out.println("Number of accounts created: " + BankAccount.getAccountCount());
84
85         System.out.println(x:"Initial account details:");
86         acc1.displayDetails();
87         acc2.displayDetails();
88         acc3.displayDetails();
89
90         System.out.println("\nAdding interest based on interest rate - " + BankAccount.getInterestRate() + "%");
91         acc1.addInterest(years:0.5);
92         acc2.addInterest(years:1.0);
93         acc3.addInterest(years:1.5);
```

J BankStatic.java 4 X

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

```
73 class BankStatic {
74     public static void main(String[] args) {
75
76         System.out.println("Balances after interest:");
77         acc1.displayDetails();
78         acc2.displayDetails();
79         acc3.displayDetails();
80
81         System.out.println("\nChanging interest rate to 5.5%");
82         BankAccount.changeInterestRate(newRate:5.5);
83
84         System.out.println("New interest rate: " + BankAccount.getInterestRate() + "%");
85
86         System.out.println("Adding interest again with new rate:");
87         acc1.addInterest(years:0.5);
88         acc2.addInterest(years:1.0);
89         acc3.addInterest(years:1.5);
90
91         System.out.println("Final balances: ");
92         acc1.displayDetails();
93         acc2.displayDetails();
94         acc3.displayDetails();
95     }
96 }
```

PROBLEMS 15 OUTPUT DEBUG CONSOLE TERMINAL PORTS

Creating bank accounts...
Static block: Initial Interest rate set to 4.5%

Number of accounts created: 3
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 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
PS C:\Users\student\Desktop\1BM24CS336>