

```

1 // fo1/7/bank/CheckingAccount.java
2 //
3 //
4 // Copyright 2003 Bill Campbell and Ethan Bolker
5
6 /**
7  * A CheckingAccount is a BankAccount with one new feature:
8  * the ability to cash a check by calling the honorCheck method.
9  * Each honored check costs the customer a checkFee.
10 *
11 * @see BankAccount
12 *
13 * @version 7
14 */
15
16 public class CheckingAccount extends BankAccount
17 {
18     /**
19     * Constructs a CheckingAccount with the given
20     * initial balance and issuing Bank.
21     * Counts as this account's first transaction.
22     *
23     * @param initialBalance the opening balance for this account.
24     * @param issuingBank the bank that issued this account.
25     *
26     * @exception InsufficientFundsException when appropriate.
27     */
28
29     public CheckingAccount( int initialBalance, Bank issuingBank )
30     throws InsufficientFundsException
31     {
32         super( initialBalance, issuingBank );
33     }
34
35     /**
36     * Honor a check:
37     * Charge the account the appropriate fee
38     * and withdraw the amount.
39     *
40     * @param amount amount (in whole dollars) to be withdrawn.
41     * @return the amount withdrawn.
42     *
43     * @exception InsufficientFundsException when appropriate.
44     */
45
46     public int honorCheck( int amount )
47     throws InsufficientFundsException
48     {
49         // careful error checking logic:
50         // first try to deduct the check fee
51         // if you succeed, try to honor check
52         // if that fails, remember to add back the check fee!
53
54         try {
55             incrementBalance( - getIssuingBank().getCheckFee() );
56

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57         catch (InsufficientFundsException e) {
58             throw new InsufficientFundsException(
59                 "to cover check fee" );
60         }
61         try {
62             withdraw( amount );
63         }
64         catch (InsufficientFundsException e) {
65             incrementBalance( getIssuingBank().getCheckFee() );
66             throw new InsufficientFundsException(
67                 "to cover check + check fee" );
68         }
69         return amount;
70     }
71
72     /**
73     * Nothing special happens to a CheckingAccount on the
74     * first day of the month.
75     */
76     public void newMonth()
77     {
78         return;
79     }
80
81 }

```