

```

1 // foj/8/juno/Password.java//
2 //
3 //
4 // Copyright 2003 Bill Campbell and Ethan Bolker
5
6 /**
7  * Model a good password.
8  *
9  * <p>
10 * A password is a String satisfying the following conditions
11 * (close to those required of Unix passwords, according to
12 * the <code>man passwd </code> command in Unix):
13 * <br>
14 * <ul>
15 * <li> A password must have at least PASSWORD_LENGTH characters, where
16 * PASSWORD_LENGTH defaults to 6. Only the first eight characters
17 * are significant.
18 *
19 * <li> A password must contain at least two alphabetic characters
20 * and at least one numeric or special character. In this case,
21 * "alphabetic" refers to all upper or lower case letters.
22 *
23 * <li> A password must not contain a specified string as a substring
24 * For comparison purposes, an upper case letter and its
25 * corresponding lower case letter are equivalent.
26 *
27 * <li> A password must not be a substring of a specified string.
28 * For comparison purposes, an upper case letter and its
29 * corresponding lower case letter are equivalent.
30 *
31 * </ul>
32 * <br>
33 * A Password string may be stored in a Password object only in
34 * encrypted form.
35 */
36
37 public class Password
38 {
39     private String password;
40
41     /**
42      * Construct a new Password.
43      *
44      * @param password the new password.
45      * @param notSubstringOf a String that may not contain the password.
46      * @param doesNotContain a String the password may not contain.
47      *
48      * @exception BadPasswordException when password is unacceptable.
49      */
50
51     public Password(String password, String notSubstringOf,
52                     String doesNotContain)
53         throws BadPasswordException
54     {
55         // if password is not acceptable
56         // throw new BadPasswordException( reason )

```

```

57         this.password = encrypt(password);
58     }
59
60     // Rewrite s in a form that makes it hard to guess s.
61     private String encrypt( String s )
62     {
63         return Integer.toHexString(s.hashCode());
64     }
65
66     /**
67      * See whether a supplied guess matches this password.
68      *
69      * @param guess the trial password.
70      *
71      * @exception BadPasswordException when match fails.
72      */
73
74     public void match(String guess)
75     {
76         throws BadPasswordException
77     }
78
79     /**
80      * Unit test for Password objects.
81      */
82
83     public static void main( String[] args )
84     {
85
86
87     }

```

```
1 // foj/8/juno/BadPasswordException.java
2 //
3 //
4 // Copyright 2003 Bill Campbell and Ethan Bolker
5
6 /**
7  * The exception thrown when an initial password is unacceptable
8  * or a match against an existing password fails.
9  */
10
11 public class BadPasswordException extends Exception
12 {
13     BadPasswordException()
14     {
15         super();
16     }
17
18     BadPasswordException(String message)
19     {
20         super(message);
21     }
22 }
```