

```
1 package passwordEvaluationTestbed;
2
3 public class PasswordEvaluationTestingAutomation {
4
5     static int numPassed = 0;
6     static int numFailed = 0;
7     public static void main(String[] args) {
8         System.out.println("_____");
9         System.out.println("\nTesting Automation");
10
11         performTestCase(1, "Aa!15678", true);
12
13         performTestCase(2, "A!", false);
14
15         performTestCase(3, "Aa!15678", true);
16
17         performTestCase(4, "A!", false);
18         performTestCase(5, "", false);
19
20         System.out.println("_____");
21         System.out.println();
22         System.out.println("Number of tests passed: " + numPassed);
23         System.out.println("Number of tests failed: " + numFailed);
24     }
25
26     private static void performTestCase(int testCase, String inputText, boolean expectedPass) {
27         System.out.println("_____ \n\nTest case:
28 " + testCase);
29         System.out.println("Input: \"" + inputText + "\"");
30         System.out.println("_____");
31         System.out.println("\nFinite state machine execution trace:");
32
33         String resultText = PasswordEvaluator.evaluatePassword(inputText);
34
35         System.out.println();
36
37         if (resultText != "") {
38             if (expectedPass) {
39                 System.out.println("***Failure*** The password <" + inputText + "> is invalid." +
40 "\nBut it was supposed to be valid, so this is a failure!\n");
41                 System.out.println("Error message: " + resultText);
42                 numFailed++;
43             }
44             else {
45                 System.out.println("***Success*** The password <" + inputText + "> is invalid." +
46 "\nBut it was supposed to be invalid, so this is a pass!\n");
```

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46         System.out.println("Error message: " + resultText);
47         numPassed++;
48     }
49 }
50
51 else {
52     if (expectedPass) {
53         System.out.println("***Success*** The password <" + inputText +
54             "> is valid, so this is a pass!");
55         numPassed++;
56     }
57     else {
58         System.out.println("***Failure*** The password <" + inputText +
59             "> was judged as valid" +
60             "\nBut it was supposed to be invalid, so this is a failure!");
61         numFailed++;
62     }
63 }
64 displayEvaluation();
65 }
66
67 private static void displayEvaluation() {
68     if (PasswordEvaluator.foundUpperCase)
69         System.out.println("At least one upper case letter - Satisfied");
70     else
71         System.out.println("At least one upper case letter - Not Satisfied");
72
73     if (PasswordEvaluator.foundLowerCase)
74         System.out.println("At least one lower case letter - Satisfied");
75     else
76         System.out.println("At least one lower case letter - Not Satisfied");
77
78
79     if (PasswordEvaluator.foundNumericDigit)
80         System.out.println("At least one digit - Satisfied");
81     else
82         System.out.println("At least one digit - Not Satisfied");
83
84     if (PasswordEvaluator.foundSpecialChar)
85         System.out.println("At least one special character - Satisfied");
86     else
87         System.out.println("At least one special character - Not Satisfied");
88
89     if (PasswordEvaluator.foundLongEnough)
90         System.out.println("At least 8 characters - Satisfied");
91     else
```

```
92         System.out.println("At least 8 characters – Not Satisfied");
93     }
94 }
95
```