

Model 1 Common Mistakes

Use *JShell* to run each of the code snippets. For Program B, do not provide any user input (just press Enter). Record the output of the last statement in the space below the table.

Program A	Program B
<pre>String greeting = "hello world"; greeting.toUpperCase(); System.out.println(greeting);</pre>	<pre>Scanner in = new Scanner(System.in); String line = in.nextLine(); char letter = line.charAt(1);</pre>

Questions (15 min)

Start time:

1. What is the logic error you see when you run Program A?
2. In Program A, what is returned by the string method? What happens to the return value?
3. Describe two different ways you can fix the logic error in #2.
4. In what cases will Program B throw an exception? What is the error message displayed?
5. Describe two different ways you can fix the run-time error in #4.

6. To compare strings, you must use either the `String.equals` or `String.compareTo` method. Predict the output of the following code.

```
String name1 = new String("Mark");
String name2 = new String("Mark");

// compare name1 and name2
if (name1 == name2) {
    System.out.println("name1 and name2 are identical");
} else {
    System.out.println("name1 and name2 are NOT identical");
}

// compare "Mark" and "Mark"
if (name1.equals(name2)) {
    System.out.println("name1 and name2 are equal");
} else {
    System.out.println("name1 and name2 are NOT equal");
}
```

7. What is the difference between *identical* and *equal* in the previous question?