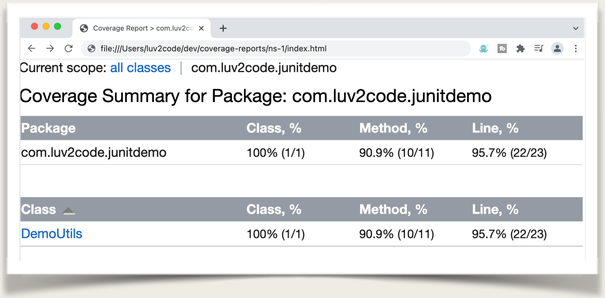
luv2code

Code Coverage and Test Reports with IntelliJ

Code Coverage

- Code coverage measures how many methods/lines are called by your tests
- Coverage is represented as a percentage: 50% coverage etc ...
- In general, the higher the coverage the better
  - However, 100% is not always attainable
  - On most teams, 70%-80% is acceptable
- Code coverage is only a metric and can be easily tricked with bad tests
- Use the metric as simply one data point in your software process

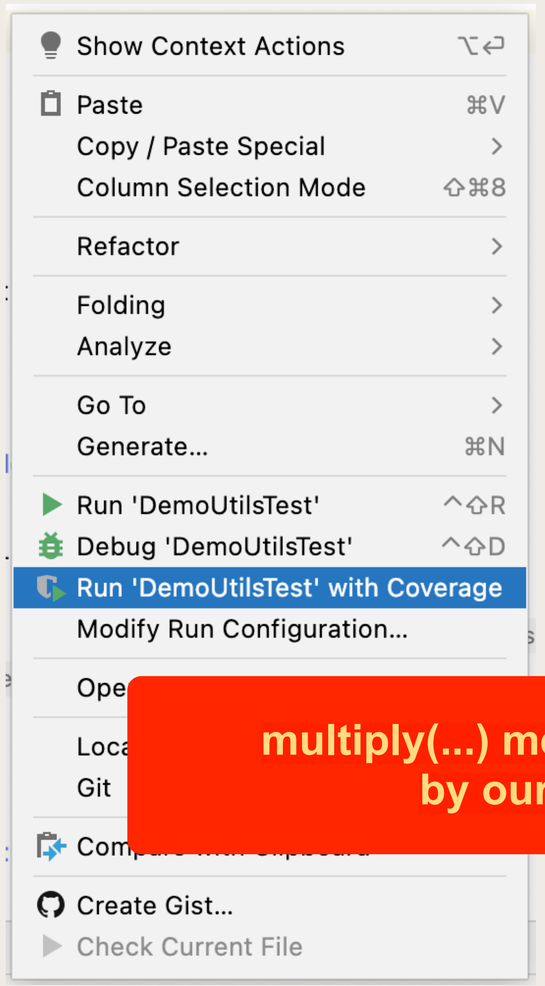
IntelliJ Support for Code Coverage

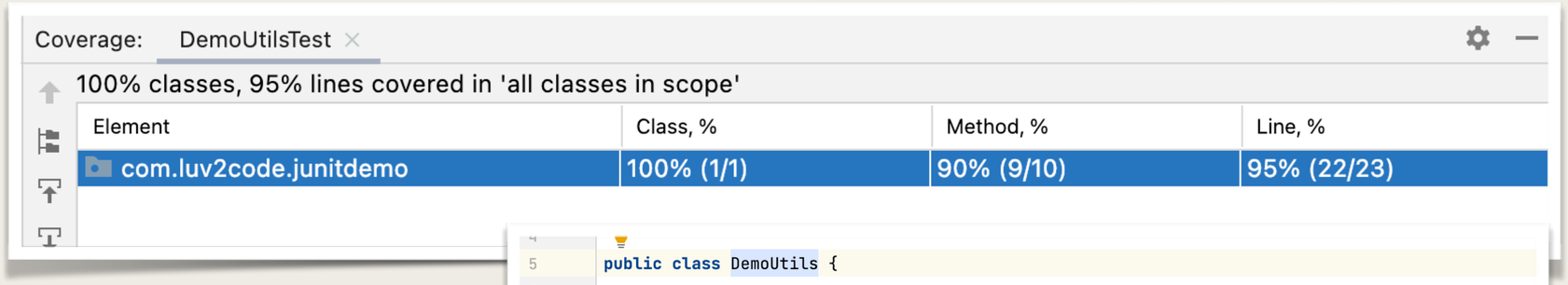


- IntelliJ has built-in support for code coverage
- Can generate coverage reports in the IDE
- Also can generate HTML output for viewing in web browser

- If you are not using IntelliJ, don't worry
  - In later videos, I'll show you how to do the same using Maven commands
  - No IDE is required ... run Maven from command-line

IntelliJ Support for Code Coverage

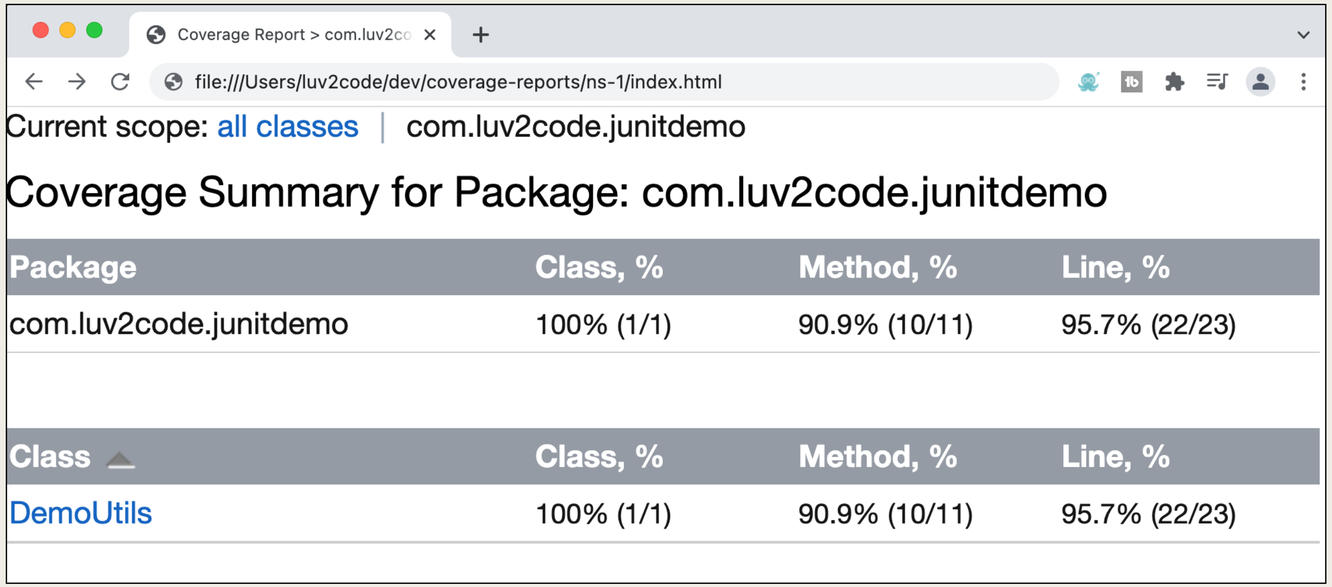




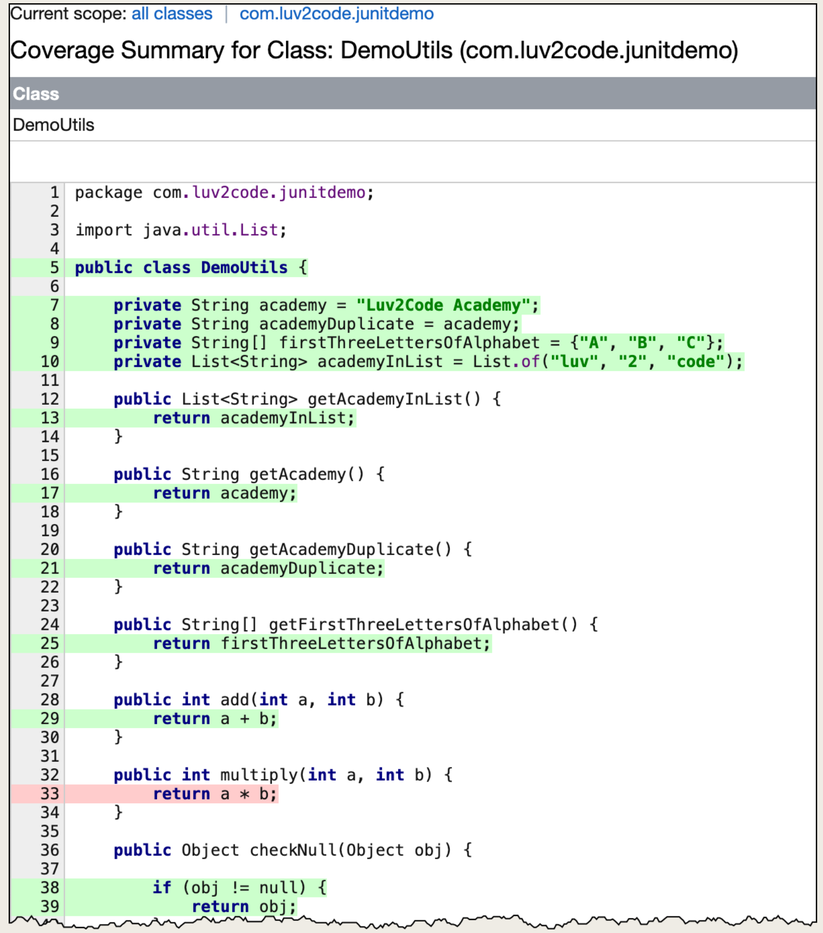
multiply(...) method not covered by our unit tests

```
5  public class DemoUtils {
6
7      private String academy = "Luv2Code Academy";
8      private String academyDuplicate = academy;
9      private String[] firstThreeLettersOfAlphabet = {"A", "B", "C"};
10     private List<String> academyInList = List.of("luv", "2", "code");
11
12     public List<String> getAcademyInList() { return academyInList; }
15
16     public String getAcademy() { return academy; }
19
20     public String getAcademyDuplicate() { return academyDuplicate; }
23
24     public String[] getFirstThreeLettersOfAlphabet() { return firstThreeLettersOfAlphabet; }
27
28     public int add(int a, int b) { return a + b; }
31
32     public int multiply(int a, int b) { return a * b; }
35
36     public Object checkNull(Object obj) {
37
```

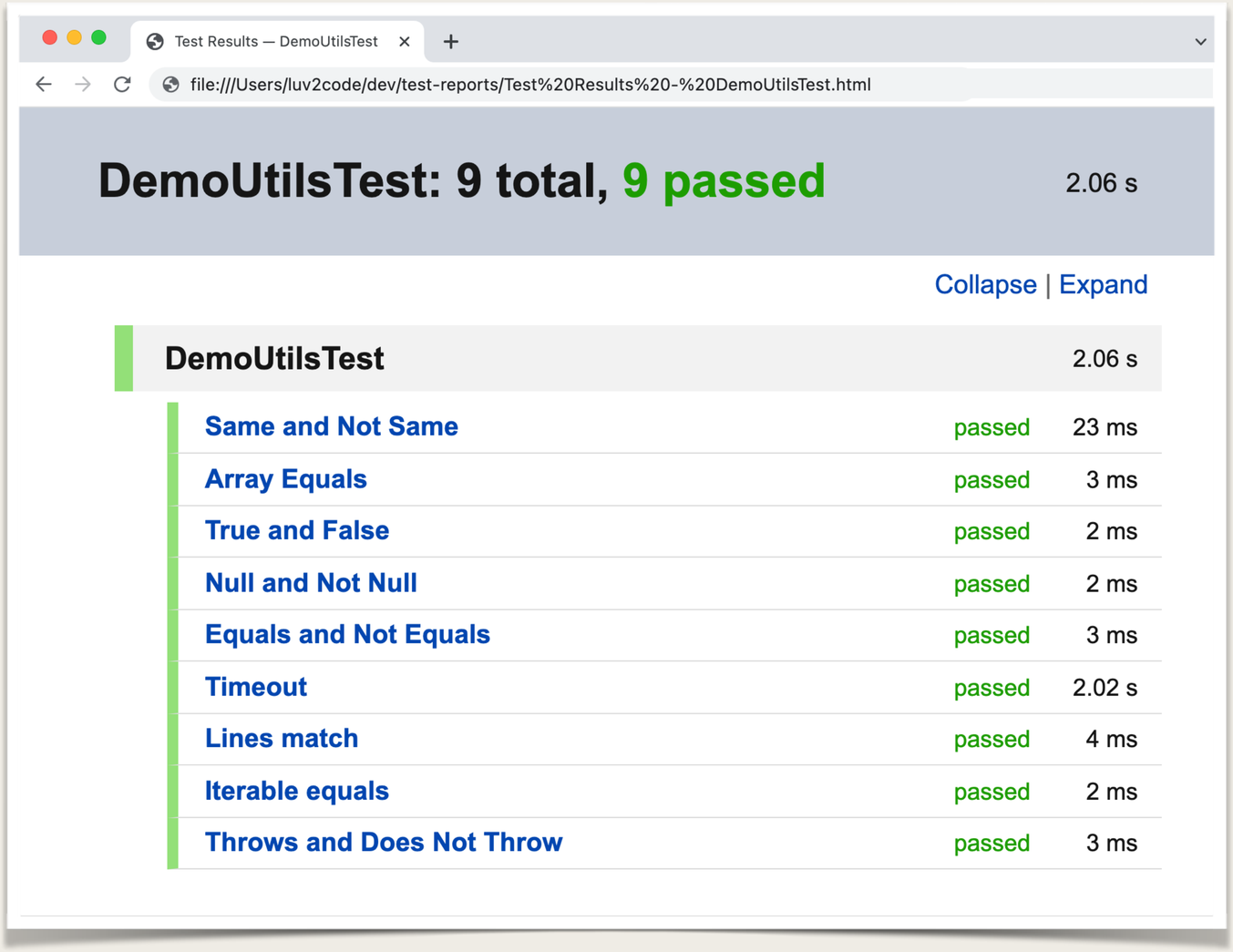
IntelliJ - Generate Code Coverage Report



multiply(...) method not covered by our unit tests



IntelliJ - Generate Test Reports



IntelliJ Documentation

- Additional features and support for testing

https://www.jetbrains.com/help/idea/tests-in-ide.html