

Assignment #2

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For each task, write your answers and findings in a README file together with any code.

Reflections

Computer mouse

Identify the types of testing you would perform on a computer mouse, to make sure that it is of the highest quality.

Catastrophic failure

Find a story where a software system defect had a bad outcome. Describe what happened. Can you identify a test that would have prevented it?

Two katas

Complete the following using TDD. Remember the TDD mantra.

String utility

Use TDD to create a string utility with the following methods:

- Reverse string (aBc -> cBa)
- Capitalize string (aBc -> ABC)
- Lowercase string (aBc -> abc)

Bowling game kata

Complete the Bowling Game Kata using TDD. The slides can be found here:
<http://butunclebob.com/files/downloads/Bowling%20Game%20Kata.ppt>

Investigation of tools

JUnit 5

Investigate JUnit 5 (Jupiter). Explain the following, and how they are useful.

- @Tag
- @Disabled
- @RepeatedTest
- @BeforeEach, @AfterEach
- @BeforeAll, @AfterAll
- @DisplayName
- @Nested
- assumeFalse, assumeTrue

Mocking frameworks

Investigate mocking frameworks for your preferred language. Choose at least two frameworks, and answer the questions. (One could be Mockito, which we saw in class.)

- What are their similarities?
- What are their differences?
- Which one would you prefer, if any, and why?

Hand-in

Make the katas individually. The other things may be done in groups. Hand-in on the date given in peergrade. The hand-in should be code in a repository or zip-file, and a README.md with the written answers.