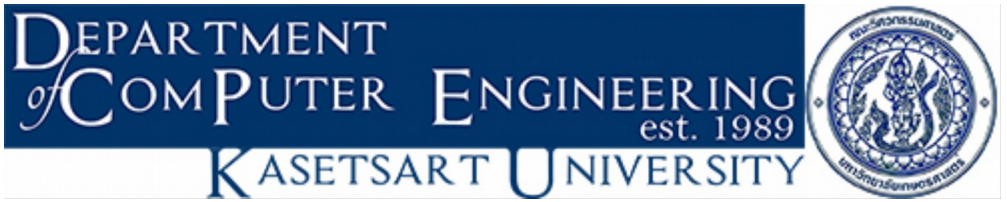


Software Testing

Lesson 7 – Test tools
Quiz

Uwe Gühl

Winter 2015 / 2016

1. Test Tools Overview

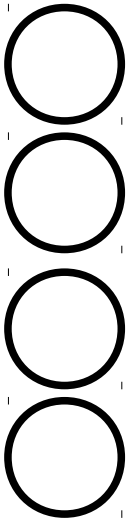
A tool that supports traceability,
recording of incidents, or scheduling of tests is called:

a) a dynamic analysis tool

b) a test execution tool

c) a debugging tool

d) a test management tool



http://www.istqbsamplepaper.n18.in

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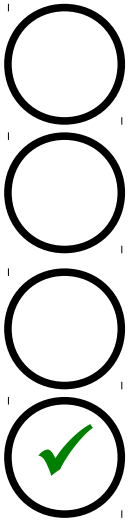

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2. Test Tools Overview

Which tool can manipulate databases, files or data transmissions and set up test data to be used during execution of tests to ensure security through data anonymity?

a) Security test tool ○

b) Test data preparation tool ○

c) Configuration management tool ○

d) Defect management system ○

https://quizlet.com/59762491/istqb-ctfl-chapter-6-quiz-flash-cards/

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3. Test Tools Overview

Which type of test tool supports programmers to reproduce failures, investigate the state of programs and find the corresponding defect?

a) Debugging tool

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d) Stress testing tool

Source: Aberdeen Global IT team, 2006

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4. Test Tools
Overview

Which type of test tool supports BEST the test process activity “management of testing and tests”?

a) Modelling tool ○

b) Test comparator ○

c) Performance testing, load testing and stress-testing tool ○

d) Requirements management tool ○

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5. Test Tools Overview

How is it called, if a test tool is intrusive?

a) Measurement error

b) Fault attack

c) Probe effect

d) Intrusive factor

http://www.allthetests.com

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6. Test Tools
Test management tools

Below you find a list of improvement goals a software development and test organisation would like to achieve.

Which of these goals for improving the efficiency of test activities would best be supported by a test management tool?

a) Improve the efficiency by building traceability between requirements.

b) Improve the efficiency by optimizing the ability of tests to identify failures.

c) Improve the efficiency by faster resolving defects.

d) Improve the efficiency by automating the selection of test cases for execution.

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7. Test Tools
Test execution tools

Which one of the following characteristics of test execution tools describes BEST a specific characteristic of a keyword-driven test execution tool?

a) Actions of testers will be recorded in a script that can be rerun several times.

b) Actions of testers will be recorded in a script that is then being generalized to run with several sets of test input data.

c) The ability to log test results and compare them against the expected results.

d) A table containing test input data, action words, and expected results controls the execution of the system under test.

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8. Test Tools
Introducing a tool

When a new testing tool is purchased, it should be used first by

a) a small team to establish the best way to use the tool

b) everyone who may eventually have some use for the tool

c) the independent testing team

d) the vendor contractor to write the initial scripts

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9. Test Tools
Introducing a tool

Which statement is TRUE concerning a potential benefit of using tools?

a) Replacement for test design and/or manual testing ○

b) Capture tests by recording the actions of a manual tester ○

c) Objective assessment ○

d) Purchasing or leasing a tool ○

Source: Aberdeen Global IT team, 2006

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Introducing a tool

Which statement is TRUE concerning a potential benefit of using tools?

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1 Task
Unit Testing (1/2)

- A system was designed to calculate the fine in case of speeding. Speeding 1-15 mph over 65 mph results in a fine of $146. Additionally:
  - Speeding 16-25 mph over 65 mph $266 fine.
  - Speeding more than 25 mph over 65 mph $380 fine.

1. How many test cases should be written?
   Please explain your answer.
2. Two JUnit test cases have been written already (following page), please add another one in detail.
3. What could be extracted into an "`@Before`" Statement?

1 Task
Unit Testing (2/2)

```
package speedingFine;
import static org.junit.Assert.*;
import org.junit.Test;

public class SpeedingFineTest {

  @Test
  public void testNoFine() {
    SpeedingFine sf = new SpeedingFine();
    assertTrue("Fine no speeding: ", "$0" == sf.getFine(0));
  }

  @Test
  public void testLowSpeedingLowerBound() {
    SpeedingFine sf = new SpeedingFine();
    assertEquals("Fine low speeding lower bound: ", "$146",
                 sf.getFine(1));
  }
}
```

1 Proposal
Unit Testing (1/3)

1. 4 test cases following equivalence classes.
   6 test cases following Boundary Value analysis.
2. Following test cases could be added:

```
@Test
public void testLowSpeedingUpperBound() {
    SpeedingFine sf = new SpeedingFine();
    assertEquals("Fine low speeding upper bound: ", "$146",
                 sf.getFine(15));
}

@Test
public void testMediumSpeedingLowerBound() {
    SpeedingFine sf = new SpeedingFine();
    assertEquals("Fine medium speeding lower bound: ", "$266",
                 sf.getFine(16));
}
```

1 Proposal
Unit Testing (2/3)

```
@Test
public void testMediumSpeedingUpperBound() {
    SpeedingFine sf = new SpeedingFine();
    assertEquals("Fine medium speeding upper bound: ", "$266",
                 sf.getFine(25));
}

@Test
public void testHighSpeeding() {
    SpeedingFine sf = new SpeedingFine();
    assertEquals("Fine medium speeding: ", "$380",
                 sf.getFine(26));
}
```

1 Proposal
Unit Testing (3/3)

3. The statement

```
speedingFine sf = new SpeedingFine();
```

in each test case could be moved out:

```
private SpeedingFine sf;

@Before
public void setup() throws Exception {
    sf = new SpeedingFine();
}
```