

Software Testing

Lesson 4 – Static Testing
Quiz

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1. Static Testing

Which of the following are the main phases of a formal review?

- a) Initiation, status, preparation, review meeting, rework, follow up. ☐
- b) Planning, kick off, individual preparation, review meeting, rework, follow up. ☐
- c) Planning, preparation, review meeting, rework, closure, follow up. ☐
- d) Preparation, review meeting, rework, closure, follow up, root cause analysis. ☐



1. Static Testing

Which of the following are the main phases of a formal review?

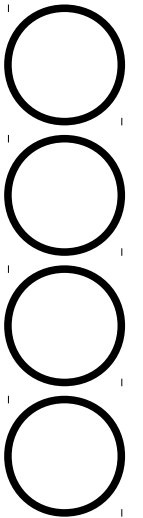
- a) Initiation, status, preparation, review meeting, rework, follow up. ☐
- b) Planning, kick off, individual preparation, review meeting, rework, follow up. ☒
- c) Planning, preparation, review meeting, rework, closure, follow up. ☐
- d) Preparation, review meeting, rework, closure, follow up, root cause analysis. ☐



2. Static Testing

Which of the review types below is the MOST adequate option to choose for reviewing safety critical components in a software project?

- a) Informal review
- b) Management review
- c) Inspection
- d) Walk-through

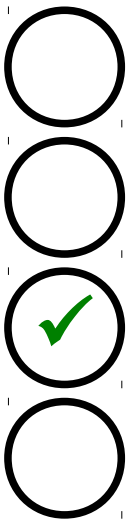




2. Static Testing

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- a) Informal review
- b) Management review
- c) Inspection
- d) Walk-through





3. Static Testing

Which of the following statements about static analysis is **FALSE**?

- a) Static analysis can be used as a preventive measure with appropriate process in place. ☐
- b) Static analysis can find defects that are not easily found by dynamic testing. ☐
- c) Static analysis can result in cost savings by finding defects early. ☐
- d) Static analysis is a good way to force failures into the software. ☐



3. Static Testing

Which of the following statements about static analysis is **FALSE**?

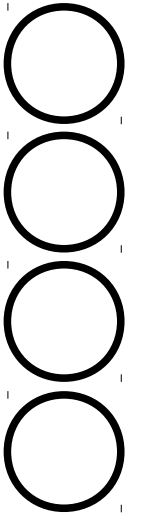
- a) Static analysis can be used as a preventive measure with appropriate process in place. ☐
- b) Static analysis can find defects that are not easily found by dynamic testing. ☐
- c) Static analysis can result in cost savings by finding defects early. ☐
- d) Static analysis is a good way to force failures into the software. ☒



4. Static Testing

What can static analysis **NOT** find?

- a) Whether the value stored in a variable is correct
- b) Unreachable (“dead”) code
- c) The use of a variable before it has been defined
- d) The re-definition of a variable before it has been used

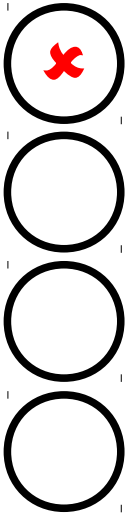




4. Static Testing

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- b) Unreachable (“dead”) code
- c) The use of a variable before it has been defined
- d) The re-definition of a variable before it has been used





5. Static Testing

Which expression best matches the following characteristics or review processes?

- | | |
|---|--------------------|
| 1) led by author | a) inspection |
| 2) undocumented | b) peer review |
| 3) no management participation | c) informal review |
| 4) led by a trained moderator or leader | d) walk-through |
| 5) uses entry and exit criteria. | |

<http://www.istqb.org>



5. Static Testing

Which expression best matches the following characteristics or review processes?

- | | | |
|---|--------------------|-------------|
| 1) led by author | a) inspection | = 4) and 5) |
| 2) undocumented | b) peer review | = 3) |
| 3) no management participation | c) informal review | = 2) |
| 4) led by a trained moderator or leader | d) walk-through | = 1) |
| 5) uses entry and exit criteria. | | |
-

<http://www.istqb.org>



6. Static Testing

Could reviews or inspections be considered part of testing?

- a) No, because they apply to development documentation. ☐
- b) No, because they are normally applied before testing. ☐
- c) Yes, because both help detect faults and improve quality. ☐
- d) Yes, because testing includes all non-constructive activities. ☐



6. Static Testing

Could reviews or inspections be considered part of testing?

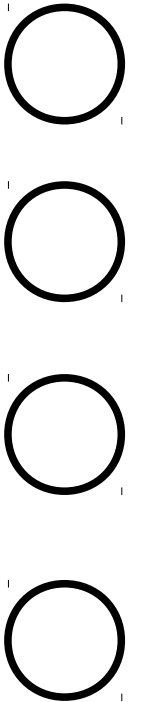
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- b) No, because they are normally applied before testing. ☐
- c) Yes, because both help detect faults and improve quality. ☒
- d) Yes, because testing includes all non-constructive activities. ☐



7. Static Testing

Static analysis is best described as:

- a) the analysis of program code.
- b) the reviewing of test plans.
- c) the analysis of batch programs.
- d) the use of black box testing.

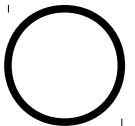
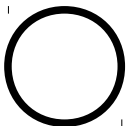
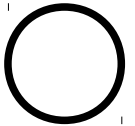




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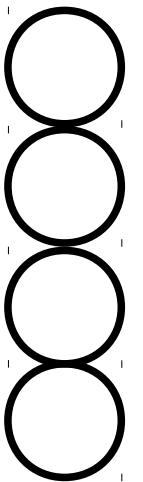


8. Static Analysis

What's the result of a data flow analysis of following code?

```
1  public class Foo {  
2      public void foo() {  
3          int j = 1;  
4          j = 2;  
5      }  
6  }
```

- a) dd anomaly and ur anomaly with j.
- b) ur anomaly with j.
- c) dd anomaly and du anomaly with j.
- d) No anomalies in this code.



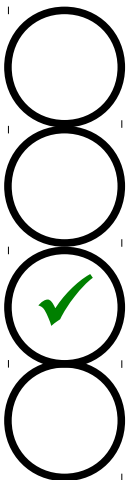


8. Static Analysis

What's the result of a data flow analysis of following code?

```
1  public class Foo {  
2      public void foo() {  
3          int j = 1;  
4          j = 2; // redefinition of j -> dd  
5          }      // j undefined at exit -> du  
6  }
```

- a) dd anomaly and ur anomaly with j.
- b) ur anomaly with j.
- c) dd anomaly and du anomaly with j.
- d) No anomalies in this code.



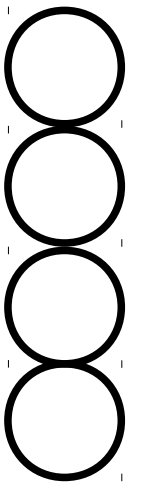


9. Static Analysis

What's the result of a data flow analysis of following code?

```
1  public class Poo {  
2      public void poo() {  
3          int k;  
4          int l = k;  
5      }  
6  }
```

- a) ur anomaly with l.
- b) ur anomaly with k.
- c) dd anomaly with l.
- d) dd anomaly with k.





9. Static Analysis

What's the result of a data flow analysis of following code?

```
1  public class Poo {  
2      public void poo() {  
3          int k;          // k undefined  
4          int l = k;      // k referenced  
5      }  
6  }
```

- a) ur anomaly with l.
- b) ur anomaly with k.
- c) dd anomaly with l.
- d) dd anomaly with k.

