

While we wait...
Check if you can open the
Quiz. Go to the URL

<https://icsbits.com/go/cisspjam>

Quiz will be available at the end of
this session

General Discussion Software Security

Software Testing.

Domain 8: Software Development Security

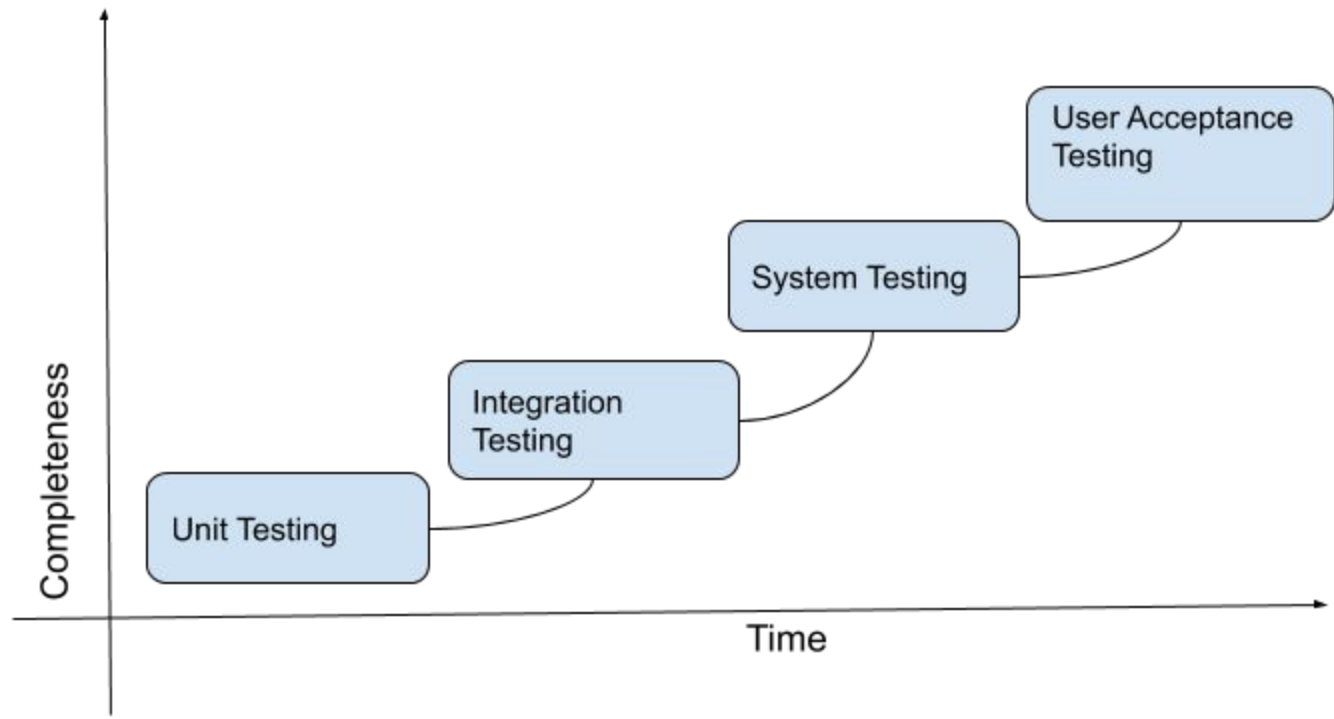
By DK

60- 70 min

Agenda

- Software Testing Introduction
5 min
- Methods and Types of Software Testing
20-30 minutes
- **Quiz**
10 min

Software testing is an investigation conducted to provide stakeholders with information about the quality of the software product or service under test.



Testing Terms

Functional and Non-Functional Testing

Functional Requirements

Non-Functional Requirements

SRS

Software Requirements Specification

Question Time

Why would we use a RTM (Requirements Traceability Matrix) in software testing?

A: To ensure we are secure.

B: To test for malformed input.

C: To map requirements to the testing plan. ✓

D: To test the code while executing it.

RTM

Requirement Traceability Matrix

Traceability Matrix

Test Coverage Analysis

It is a percentage %

If the total lines of code in a system component is 1000 and the number of lines being actually executed through all existing test cases is 650, then your test coverage is:

Test Coverage = Number of use cases tested / Total Number of use cases

$$(650 / 1000) * 100 = 65\%$$

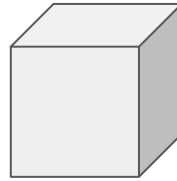
Question Time

In software testing a black box test would have how much information?

- A: Just the software, no source code. ✓
- B: The software, source code, data structures and variables.
- C: User logs, access entries and project plan.
- D: A version of the software, but only the cripple ware version.

Testing Methods - Software Code Review & Testing

Black-Box



White-Box

Grey-Box



Dynamic

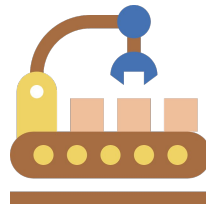


Static

Manual



Automated

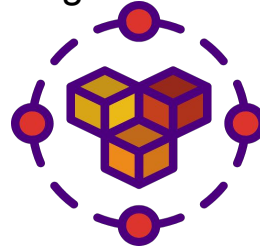


Testing Types

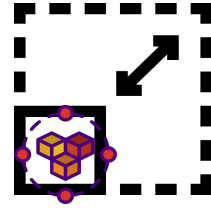
Unit testing



Integration Testing



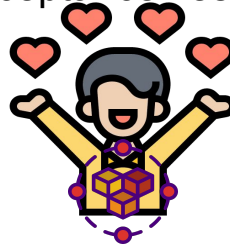
Regression Testing



Software Penetration Testing



Acceptance Testing



Question Time

In software testing, installation testing would test what?

- A: That the software installs correctly on the customers hardware. ✓
- B: Lost or missing features after major code changes.
- C: interfaces between components in the software.
- D: Processes and security alerts when encountering errors.

Question Time

In software acceptance testing, what is the purpose of user acceptance testing?

A: To ensure the backups are in place, we have a DR plan, how patching is handled and that the software is tested for vulnerabilities.

B: To ensure the software is as secure or more secure than the rules, laws and regulations of our industry.

C: To ensure the software perform as expected in our live environment vs. our development environment.

D: To ensure the software is functional for and tested by the end user and the application manager.

Bonus Question

When we want users to test our software but want key features disabled we release:

A: Cripple ware. 

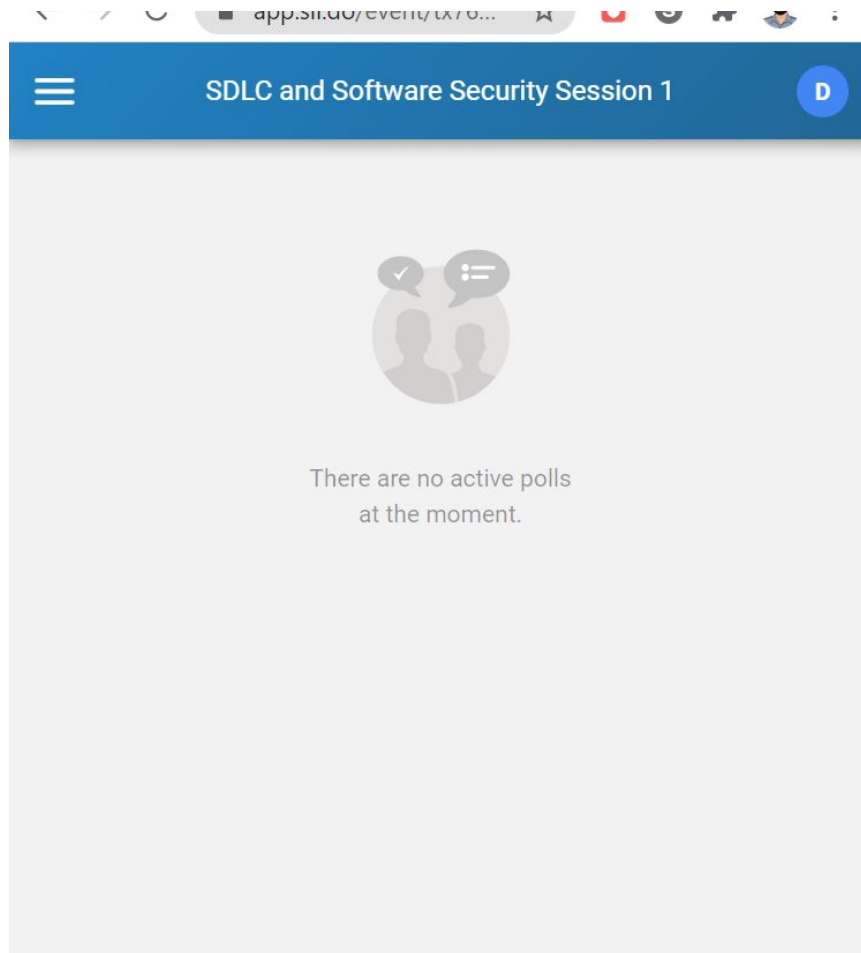
B: Shareware.

C: Freeware.

D: Bloatware.

Quiz Time!

Please use another Device - Phone or PC



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Quiz will start once everyone has been able to join.