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BCS 3263 SOFTWARE QUALITY ASSURANCE

Chapter Five Software Verification

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Chapter Description

- Aims
 - The Verification Process
- Expected Outcomes
 - Develop a Quality Assurance plan for a software project using international standards.
- Other related Information
 - Introduces students to the concept of Software Quality Assurance (SQA) including principles, component, process, models, standards and certification of SQA.
- References
 - Mastering software quality assurance : best practices, tools and techniques for software developers / Murali Chemuturi Chemuturi, Murali, J. Ross Pub. QA76.76.Q35 C44 2011



Verification



Some *software developers* argue that verification of code is a waste of time, as it is the testing that can reveal any defects, and testing is always carried out even if rigorous verification is carried out as well.

Debate this statement !!

Example: *Unnecessary declaration* of variables and constants, which are not used in the code, may be *harmless*, but it ties up RAM and has the potential to *slow down the system*, especially in Web applications.

Verification

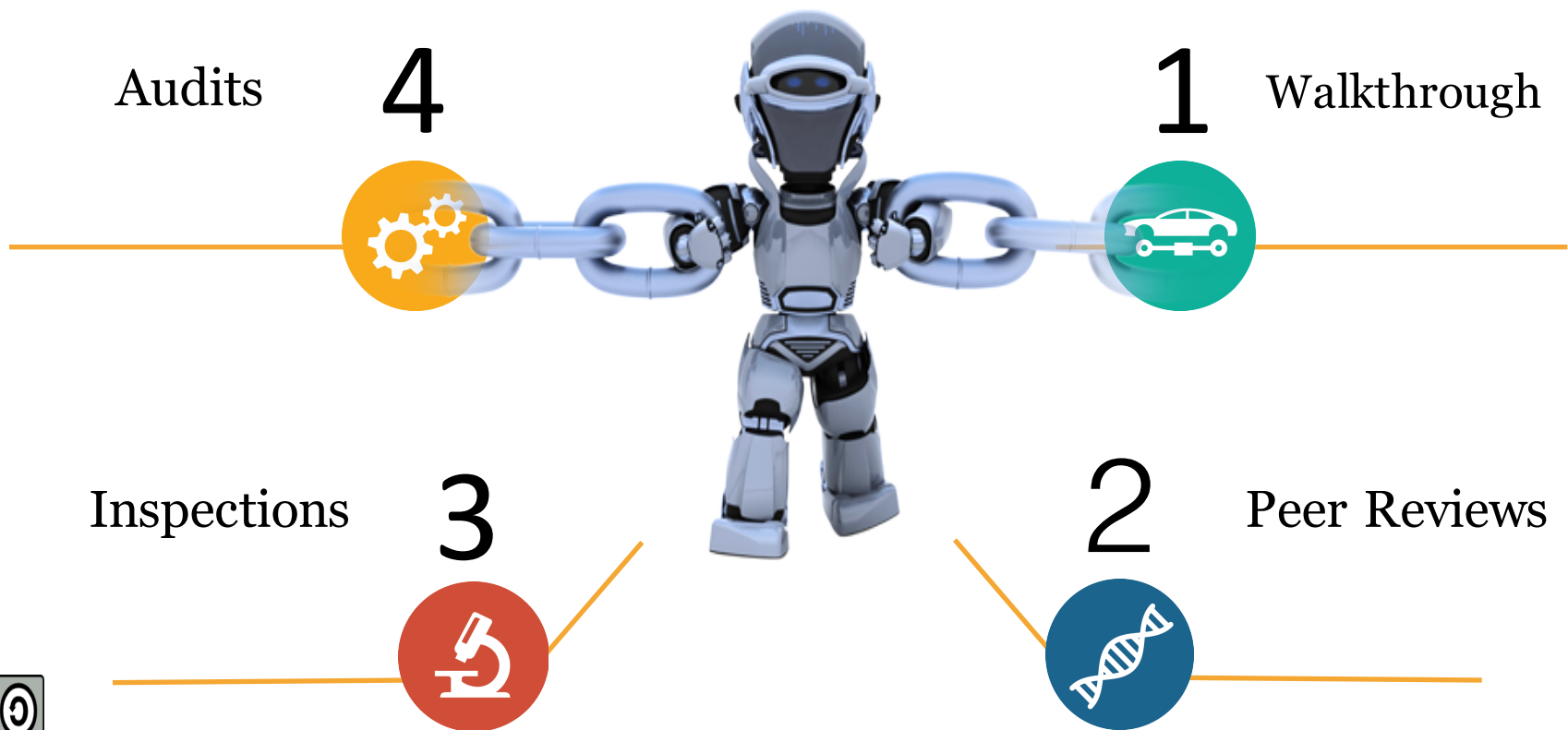
V. Does not involve confirming functionality by *testing the artifact*.

Verification is carried out by visual means and, at the most, by touch and feel, not by running or powering up the artifact.

V. Conforms to its documented specifications, standards, regulations, etc.

V. Ensures that '*you built it right*'.

TOOLS



Walkthroughs / Peer Review

The walkthrough people is other than the author

The people (peers) have similar experience

They deliver a report known as a review report.

Types of walkthroughs:

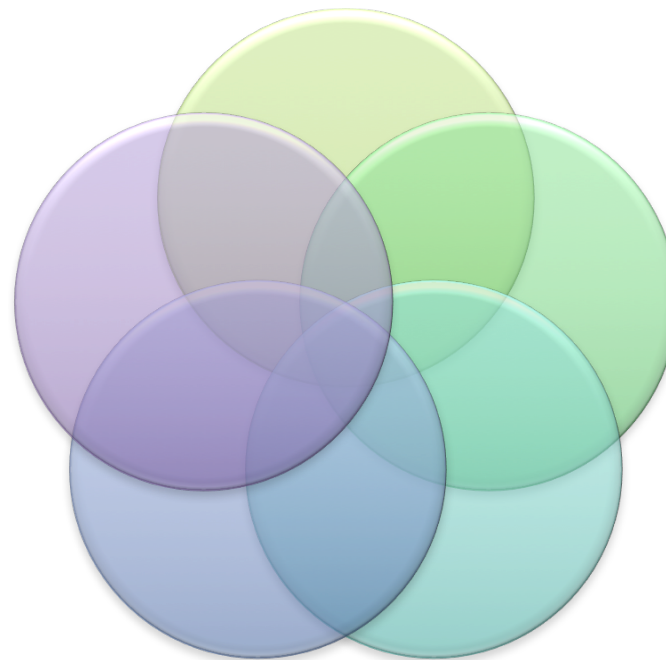
Independent
walkthroughs

Managerial
reviews

Guided
walkthroughs

Expert
reviews

Group
walkthroughs



Conclusion of The Chapter

- Conclusion #1
 - The meaning of verification
- Conclusion #2
 - The verification process
- Conclusion #3
 - The verification Tools
 - (Walkthrough & Peer Review)



Thank you 😊