

INTRODUCTION TO SOFTWARE TESTING

BASIC TERMINOLOGY

CAUSES OF SOFTWARE DEFECTS

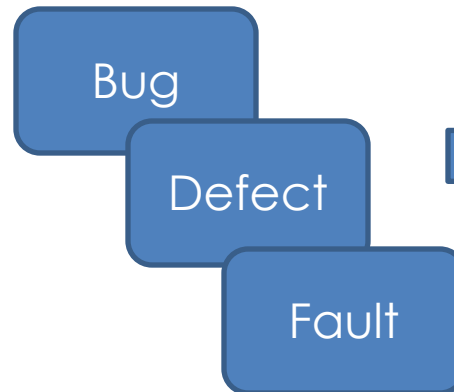


CAUSES OF SOFTWARE DEFECTS

Human action that produces incorrect result

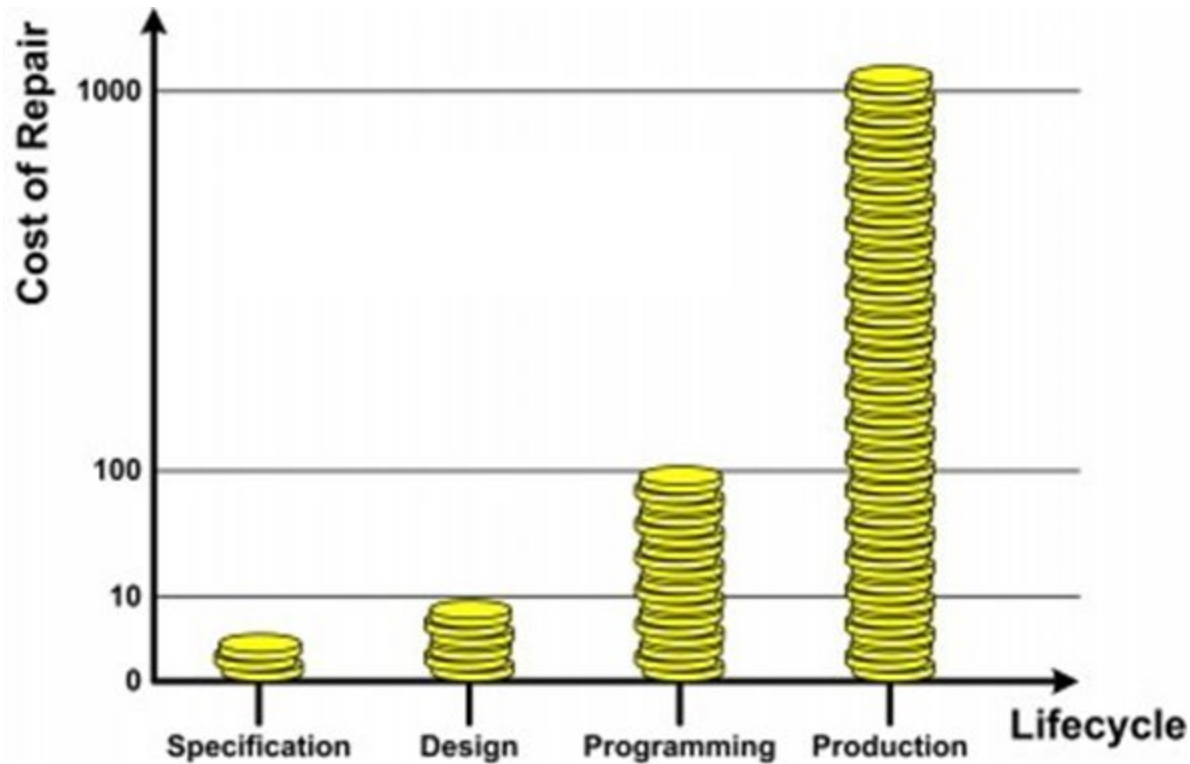


A flaw in a component or system that can cause the component or system to fail to perform its required function



Deviation from expected result

COST OF DEFECT



The cost of finding and fixing defects rises considerably across the life cycle

SOFTWARE QUALITY – ISTQB DEFINITION

Quality is the degree to which a system, component, or process meets:

- specified requirements
- customer or user needs or expectations



SOFTWARE TESTING - ISTQB DEFINITION

Testing is the process consisting of:

- all lifecycle activities,
- both static and dynamic,
- concerned with planning, preparation and evaluation of software products and related work products

Description of testing as a process

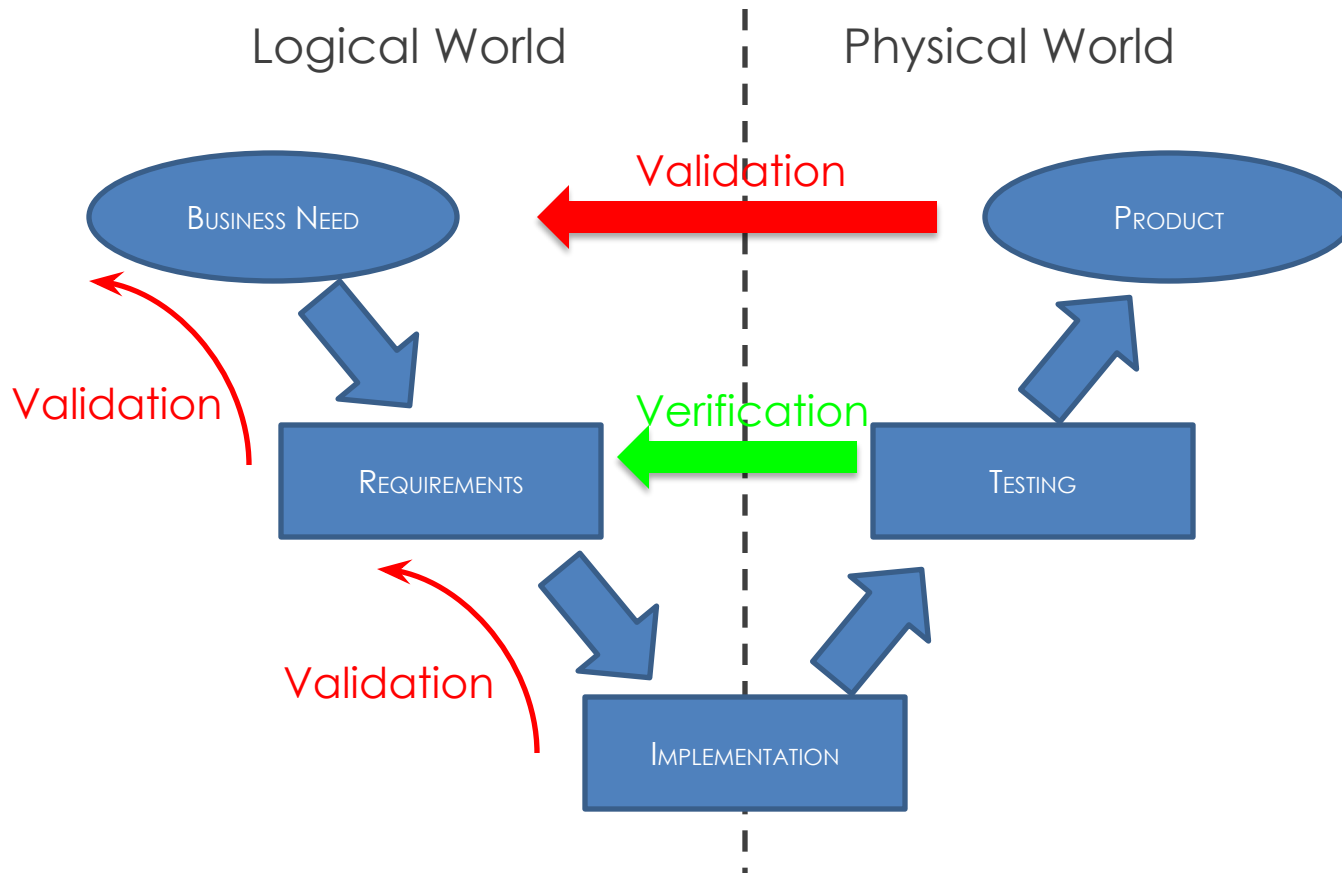
- to determine that software products satisfies specified requirements,
- to demonstrate that they are fit for purpose,
- and to detect defects.

Objectives of the test process

VALIDATION VS. VERIFICATION

Verification – did we build the system right?

Validation – did we build the right system?



TESTING AND QUALITY

Testing helps us to measure the quality of software in terms of:

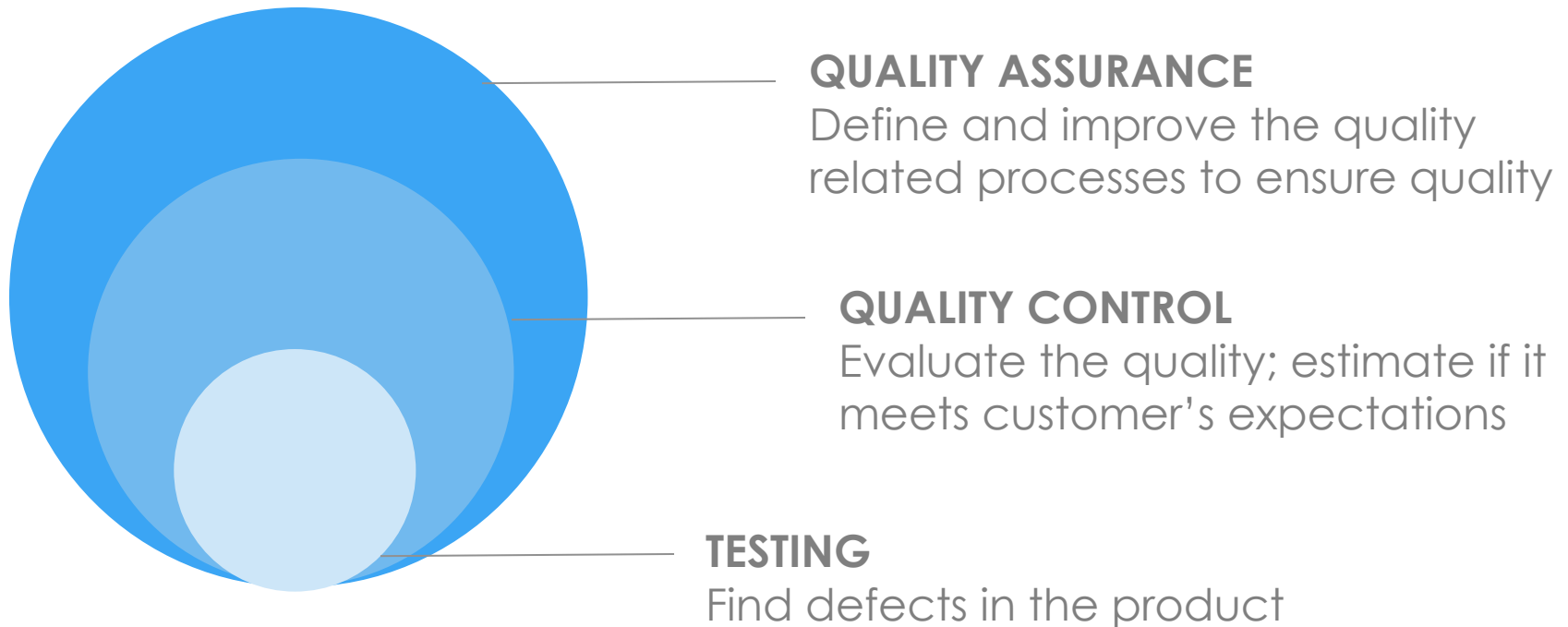
- the number of defects found,
- the tests run,
- and the system covered by the tests



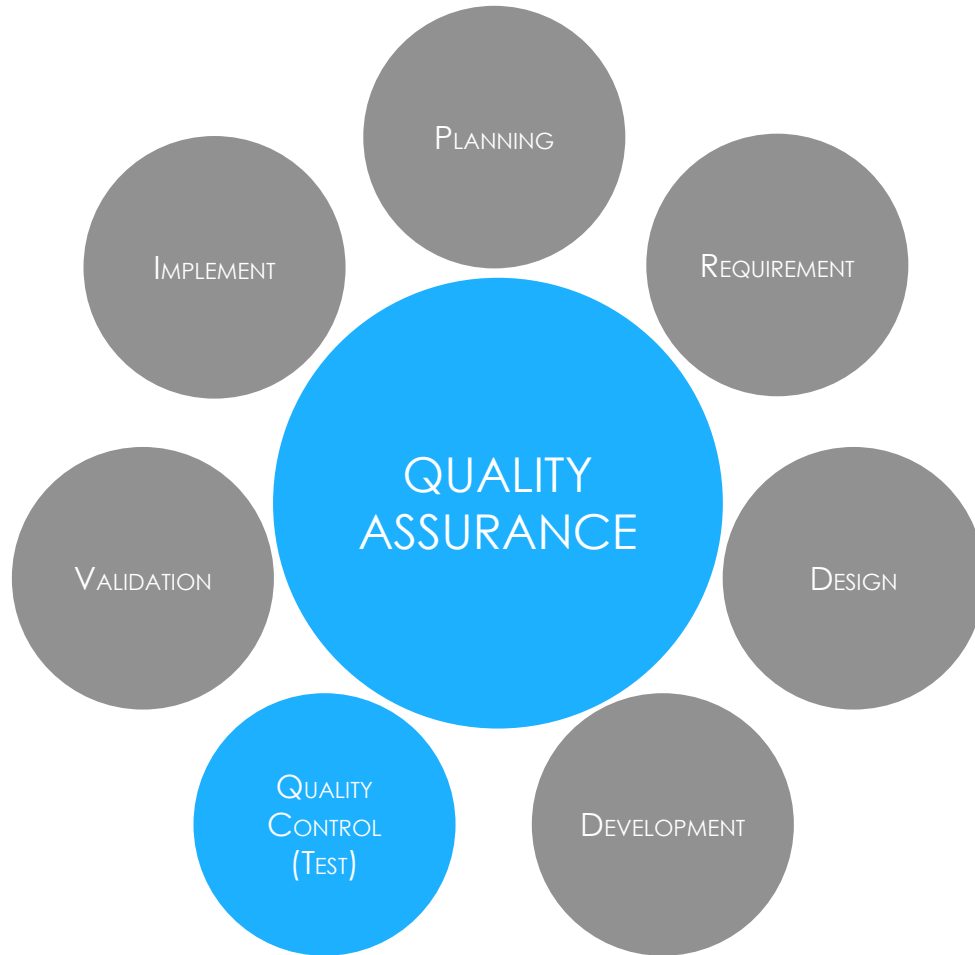
APPROACHING QUALITY

QUALITY MANAGEMENT

All managing activities within QA and QC



QA vs QC



QUALITY CONTROL

- Product
- Finds Defects
- Reactive

QUALITY ASSURANCE

- Process
- Prevent Defects
- Proactive

QA vs QC

	Quality Assurance	Quality Control
What it is	Ensure quality in software development process	Ensure quality in software products
Goal	Improve development and test processes	Identify failures/ defects
Approach	Proactive	Reactive
Responsibility	Project Team	Testing Team
Lifetime	Before software development process	Post software development
Activities	Process Definition and Implementation Audits Trainings	Reviews Testing

THANK YOU!