Software Testing Foundation PART 2
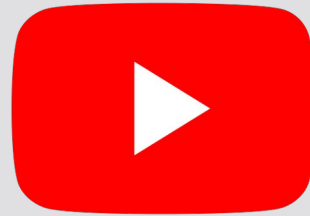
{01}

compile podcast

/RaminZare

Previously ...

Requirement specification

Functional specification

Technical specification

Program specification
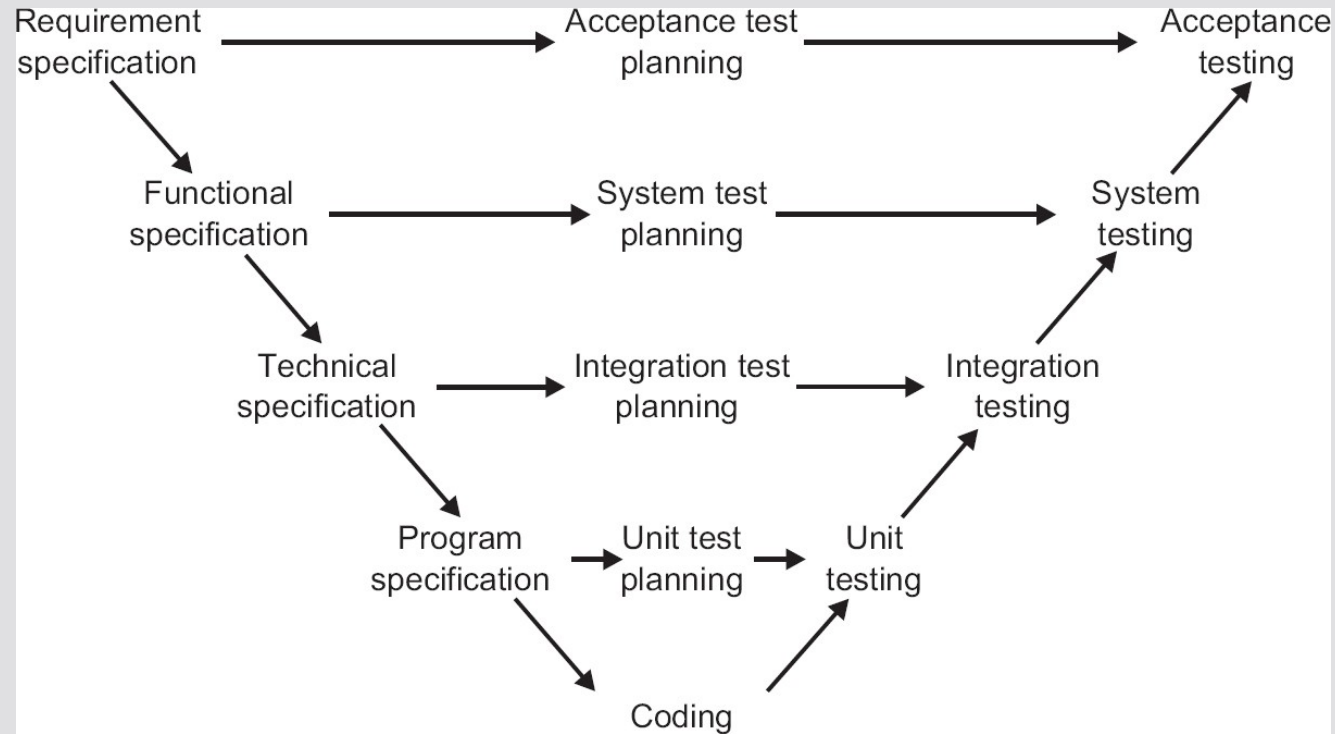
Coding ⟶ Test

Software Development Life Cycle

- **Verification**

  – Building the product in a right way

- **Validation**

  – Building the right product

Verification & Validation

V Model

- component (unit) testing
- integration testing
- system testing
- acceptance testing.

Test Levels

- Testing on a unit of code
- Can be done with Mock Objects
- Functional , Non-Functional, Structural testing
- TDD

Unit testing

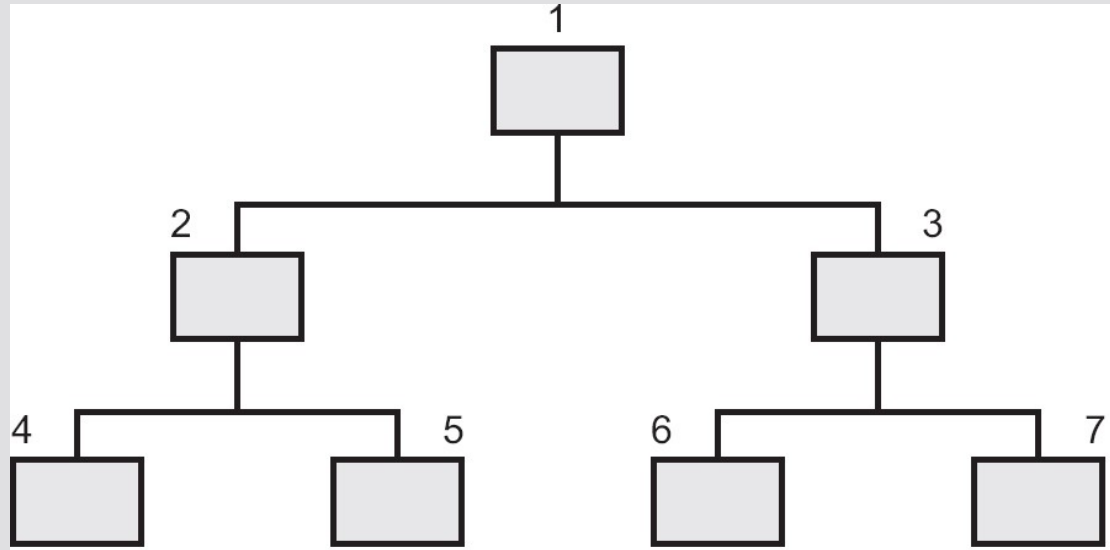- Types
  – Component integration test

  – System integration test
- CI servers

Integration Test

- Big bang
- Top-down (Stub)
- Bottom-up (Driver)

Integration Test Strategies

- Installability
- Maintainability
- Performance
- load handling
- stress handling
- Portability
- Recovery
- Reliability
- Usability

System Test

- User acceptance testing
- Operational acceptance testing
- Back-up facilities
- security vulnerabilities
- Contract and regulatory acceptance testing
- Alpha and beta testing
- ...

Acceptance Testing

- Functional testing
- Non-functional testing
- White-box testing
- Testing after code has been changed

Testing types

- Review
- Static code analysis

Static testing

- Formal and informal
- Goals
- People involved and Roles
  - Author
  - Moderator
  - Manager
  - Scriber
  - Reviewer

Review Process

- Informal
- Walkthrough
- Technical Review
- Inspection

Review Session Types

- Ad-hoc
- Checklist based
- Scenario and Dry-run based
- Role based
- Perspective based

The End →

Review Techniques