# 12. Software Engineering

**Starter Quiz** ·

University Computer Science Name: _____ Score: _____

1. Search answers within 2 seconds is –
   - ☐ a functional requirement
   - ☐ a non-functional requirement
   - ☐ an architecture decision
   - ☐ a use case
2. The dependency rule points –
   - ☐ outward to the web
   - ☐ down to the database only
   - ☐ inward: the domain depends on nothing
   - ☐ nowhere
3. Every reachable interface state needs –
   - ☐ an animation
   - ☐ a visible way out
   - ☐ a hidden shortcut
   - ☐ a modal dialog
4. In the course model, main is –
   - ☐ always releasable
   - ☐ a scratchpad
   - ☐ the old version
   - ☐ nightly only
5. The pyramid puts – at the base
   - ☐ unit tests
   - ☐ integration tests
   - ☐ manual tests
   - ☐ end-to-end tests
6. A threat model pairs –
   - ☐ modules with teams
   - ☐ bugs with tests

- ☐ users with passwords
- ☐ threats with mitigations

7. A story is done when –
   - ☐ CI green + reviewed + merged + docs
   - ☐ the demo worked once
   - ☐ the developer says so
   - ☐ the sprint ended
8. A requirement is testable when –
   - ☐ it is short
   - ☐ it mentions a tool
   - ☐ it uses adjectives
   - ☐ it names an observable outcome
9. The loan-rule change touches 1 module, 2 files. The smeared version touches –
   - ☐ 1 and 2
   - ☐ 5 and 7
   - ☐ 2 and 3
   - ☐ 3 and 5
10. Text contrast must be at least –
    - ☐ 10:1
    - ☐ 2.9:1
    - ☐ 7:1
    - ☐ 4.5:1

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1. **a non-functional requirement**

   It constrains how well the searching works, not what exists.

2. **inward: the domain depends on nothing**

   Domain purity is what makes it testable without browser or database.

3. **a visible way out**

   No exit = a trap; the error state returns to detail with input kept.

4. **always releasable**

   Short-lived branches merge back through reviewed pull requests.

5. **unit tests**

   Many fast units, fewer integration, few slow end-to-end.

6. **threats with mitigations**

   Assets x entry points x attackers, then a mitigation per threat.

7. **CI green + reviewed + merged + docs**

   Done inherits CI verdict: works-on-my-machine is not a column.

8. **it names an observable outcome**

   Observable outcome = a verdict exists: pass or fail.

9. **3 and 5**

   3 layers, 5 files: the count IS the coupling metric.

10. **4.5:1**

    WCAG AA: 4.5:1 for body text; 7:1 comfortably passes.