Design Document Assessment Checklist

The 16 Essential Properties for DevSecOps Engineers

Project Name: _____

Design Document Title: _____

Document Version: _____

Assessed By: _____

Assessment Date: _____

Instructions

Use this checklist to evaluate design documents before beginning implementation. For each property:

- ☐ Mark the checkbox if present and adequate

- ⚠️ Mark with warning if present but inadequate

- ✗ Mark with X if missing

- Add notes in the comments section for follow-up

Scoring Guide:

- 14-16 properties met: ✅ Ready for implementation

- 10-13 properties met: ⚠️ Needs minor clarification

- Below 10: ❌ Requires significant design work

FOUNDATION PROPERTIES: Getting the Basics Right

☐ 1. Clear Structure

Definition: Document uses consistent template with logical organization
Assessment Criteria:

- Sections are clearly labeled and easy to navigate

- Information is where you expect to find it

- Template follows established standards

Status: ☐ Present & Adequate ⚠️ Present but Inadequate ✗ Missing

Comments:

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_____

☐ 2. Comprehensive Coverage

Definition: Addresses all 5 pillars of Well-Architected Framework

Assessment Criteria:

- ☐ Reliability considerations documented

- ☐ Security measures addressed

- ☐ Cost optimization strategies included

- ☐ Operational excellence covered

- ☐ Performance efficiency discussed

Status: ☐ Present & Adequate ⚠️ Present but Inadequate ✗ Missing

Comments:

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☐ 3. Detailed Specifications

Definition: Technical details and design choices explained with clear diagrams

Assessment Criteria:

- No "TBD" or hand-waving in critical sections

- Architecture diagrams are clear and detailed

- Technical decisions are justified

Status: ☐ Present & Adequate ⚠️ Present but Inadequate ✗ Missing

Comments:

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☐ 4. Functional Requirements

Definition: Clear "what" and "why" with business context

Assessment Criteria:

- Business requirements are captured

- Traced through to technical decisions

- Purpose and goals are explicit

Status: ☐ Present & Adequate ⚠️ Present but Inadequate ✗ Missing

Comments:

BOUNDARY PROPERTIES: Defining What's In and Out

☐ 5. Scope Definition

Definition: Explicit boundaries of what's included and excluded

Assessment Criteria:

- Clear statement of what's in scope

- Explicit exclusions documented

- Scope creep prevention measures

Status: ☐ Present & Adequate ⚠️ Present but Inadequate ✗ Missing

Comments:

☐ 6. Metadata

Definition: Document state, work items, cross-references, stakeholders

Assessment Criteria:

- Document version and state tracked

- Links to related work items

- Key stakeholders identified

Status: ☐ Present & Adequate ⚠️ Present but Inadequate ✗ Missing

Comments:

SECURITY & ARCHITECTURE PROPERTIES

☐ 7. Security Considerations

Definition: Threat modeling performed, security controls integrated

Assessment Criteria:

- Threat modeling has been conducted

- Security controls are part of design, not afterthought

- Compliance requirements addressed

Status: ☐ Present & Adequate ⚠️ Present but Inadequate ✗ Missing

Comments:

☐ 8. Modularity

Definition: Architecture broken into reusable components

Assessment Criteria:

- Clear component boundaries

- Reusability considerations

- Enables parallel development

Status: ☐ Present & Adequate ⚠️ Present but Inadequate ✗ Missing

Comments:

OPERATIONAL REALISM PROPERTIES

☐ 9. Cost Analysis

Definition: Resource usage projections and optimization strategies

Assessment Criteria:

- Actual cost numbers provided
- Resource usage estimates included
- Optimization strategies documented

Status: ☐ Present & Adequate ⚠️ Present but Inadequate ✗ Missing

Comments:

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☐ 10. Performance Considerations

Definition: Scaling strategies and resource optimization documented

Assessment Criteria:

- Performance targets defined
- Scaling approach documented
- Resource optimization considered

Status: ☐ Present & Adequate ⚠️ Present but Inadequate ✗ Missing

Comments:

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☐ 11. Operational Aspects

Definition: Monitoring, automation, management practices covered

Assessment Criteria:

- Monitoring strategy defined
- Automation plans included

- Management practices documented

Status: ☐ Present & Adequate ⚠️ Present but Inadequate ✗ Missing

Comments:

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☐ 12. Reliability Measures

Definition: Redundancy, failover, availability targets defined

Assessment Criteria:

- Redundancy strategy documented

- Failover approach clear

- Availability targets specified

Status: ☐ Present & Adequate ⚠️ Present but Inadequate ✗ Missing

Comments:

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QUALITY & GOVERNANCE PROPERTIES

☐ 13. Alignment with Best Practices

Definition: Demonstrates knowledge of platform best practices

Assessment Criteria:

- Follows well-architected principles

- Aligns with platform guidelines

- Justifies deviations from standards

Status: ☐ Present & Adequate ⚠️ Present but Inadequate ✗ Missing

Comments:

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☐ 14. Risk Assessment

Definition: Potential risks identified with mitigation strategies

Assessment Criteria:

- Risks identified across all pillars

- Mitigation strategies defined

- Risk owners assigned

Status: ☐ Present & Adequate ⚠️ Present but Inadequate ✗ Missing

Comments:

☐ 15. Traceability

Definition: Links to specs, documentation, decision processes

Assessment Criteria:

- Related specifications linked

- Decision-making process documented

- Audit trail exists

Status: ☐ Present & Adequate ⚠️ Present but Inadequate ✗ Missing

Comments:

☐ 16. Flexibility for Iteration

Definition: Design allows for continuous improvement

Assessment Criteria:

- Not overly rigid or prescriptive

- Allows for optimization over time

- Accommodates learning

Status: ☐ Present & Adequate ⚠️ Present but Inadequate ✗ Missing

Comments:

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ASSESSMENT SUMMARY

Total Properties Met (Adequate): _____ / 16

Total Properties Needing Work: _____ / 16

Total Properties Missing: _____ / 16

Overall Status:

- ☐ ✅ Ready for Implementation (14-16 met)

- ☐ ⚠️ Needs Minor Clarification (10-13 met)

- ☐ ❌ Requires Significant Work (Below 10)

CONTEXT CONSIDERATIONS

Project Type:

- ☐ Greenfield (all properties should apply)

- ☐ Enhancement (some properties inherited)

- ☐ Proof of Concept (minimal properties acceptable)

- ☐ Small Scope Change (targeted properties only)

Properties Not Applicable Due to Context:

_____

_____

_____

NEXT STEPS

Immediate Actions Required:

1. _____

2. _____

3. _____

Information to Request from Design Team:

_____

_____

_____

Implementation Concerns to Discuss:

_____

_____

_____

Target Date for Re-assessment:

_____

_____

Assessment Completed: ☐ Yes
Design Team Notified: ☐ Yes
Follow-up Scheduled: ☐ Yes

_____

This assessment checklist is based on the Design Document Assessment Strategy for DevSecOps workflows. For more information, visit [your blog URL]