

# User Stories by Chapter: Application Security Program Guide

Compiled for Jordan Suber

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## How to Use This Template

Each card maps one chapter's *Learning Goals* to a concise story, binds the chapter's *Hands-on Objectives* to concrete *Tasks*, and verifies *Outcomes* via BDD-style Acceptance Criteria. Import these cards into your backlog, tag by risk tier, and iterate.

### Required Data on Every Story

- **ID** (e.g., APPSEC-1), **Title** (actionable verb), **Epic/Feature**, **Business Value** (outcome/why)
- **Priority** (Must/Should/Could), **Estimate** (SP), **Persona**, **Dependencies**, **Assumptions/Risks**
- **Acceptance Criteria** (Gherkin-ish BDD), **Tasks** (checklist), **NFR** (Security, Privacy, Reliability, etc.)

### Writing Effective User Stories (Quick Guide)

**Template:** As a *[persona]*, I want to *[do X]* so that *[value/why]*.

**INVEST:** Independent, Negotiable, Valuable, Estimable, Small, Testable.

**Good:** “As an AppSec lead, I want a *tiered SSDLC policy* so that *teams ship securely with minimal friction*.”

**Anti-patterns:** Vague “Research X”; multi-team mega-stories; outputs without value (“create doc”) unless tied to decision/change.

## 1 Stories by Chapter

## APPSEC-1 — Publish an AppSec Program Charter

|                            |  |
|----------------------------|--|
| <b>Epic / Feature</b>      | Program Foundations  |
| <b>Business Value</b>      | align engineering, product, and risk on scope, value, and success criteria |
| <b>Priority / Estimate</b> | Priority: Must SP: 3   |
| <b>Persona</b>             | AppSec lead  |
| <b>Dependencies</b>        | Org strategy, security policy, product roadmap                             |
| <b>Assumptions / Risks</b> | Scope creep risk; time-box charter v1 and plan iterative updates           |

**Story** *As a AppSec lead, I want to Publish an AppSec Program Charter so that align engineering, product, and risk on scope, value, and success criteria.*

**Non-Functional** Performance Security Reliability Accessibility Privacy i18n

### Acceptance Criteria (BDD)

**Scenario** Happy path

**Given** the target repositories, environments, and program context are available

**When** the *Hands-on Objectives* for this chapter are executed

**Then** the stated *Outcomes/Deliverables* for this chapter are produced, reviewed, and published

**Definition of Ready:** Persona clear; AC drafted; Dependencies known; Estimate set. • **Definition of Done:** All ACs pass; Tests green; Security/allly checks; Docs updated; Deployed/flagged.

### Tasks

- ☐ Draft a one-page charter: mission, scope, definitions, interfaces, success metrics.
- ☐ Create a stakeholder map and RACI for threat modeling, testing, vuln mgmt, IR.
- ☐ Review with Eng/Product/Risk; capture decisions and open questions.
- ☐ Publish in the handbook repo; version as living document.

## APPSEC-2 — Create a Control Dictionary & Traceability Matrix

|                            |   |
|----------------------------|---|
| <b>Epic / Feature</b>      | Security Foundations  |
| <b>Business Value</b>      | give engineers clear, shared definitions and connect policies to app controls |
| <b>Priority / Estimate</b> | Priority: Must SP: 5  |
| <b>Persona</b>             | Security architect  |
| <b>Dependencies</b>        | Enterprise policies/standards   |
| <b>Assumptions / Risks</b> | Terminology mismatch; include concrete code/config examples                   |

**Story** *As a Security architect, I want to Create a Control Dictionary & Traceability Matrix so that give engineers clear, shared definitions and connect policies to app controls.*

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### Acceptance Criteria (BDD)

|                 |  |
|-----------------|--|
| <b>Scenario</b> | Happy path   |
| <b>Given</b>    | the target repositories, environments, and program context are available                       |
| <b>When</b>     | the <i>Hands-on Objectives</i> for this chapter are executed                                   |
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### Tasks

- ☐ Compile key concepts (authn, authz, logging, crypto, secrets, input validation).
- ☐ Map each enterprise policy to concrete application controls and test evidence.
- ☐ Add links to code samples, lints, and CI checks for each control.
- ☐ Publish as `/docs/control-dictionary.md` and keep PR-able.

## APPSEC-3 — Build an Application Inventory & Tiering

|                            |  |
|----------------------------|--|
| <b>Epic / Feature</b>      | Program Scope  |
| <b>Business Value</b>      | focus effort on highest-risk apps; enable tiered controls and SLAs |
| <b>Priority / Estimate</b> | Priority: Must SP: 5   |
| <b>Persona</b>             | Product security engineer  |
| <b>Dependencies</b>        | CMDB/source of truth; service catalog                              |
| <b>Assumptions / Risks</b> | Owner gaps; require ownership to promote to higher envs            |

**Story** *As a Product security engineer, I want to Build an Application Inventory & Tiering so that focus effort on highest-risk apps; enable tiered controls and SLAs.*

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### Tasks

- ☐ Inventory apps/services/APIs with owners, data classes, exposure, tech stack.
- ☐ Define tiering model (e.g., P0–P3) with criteria and examples.
- ☐ Record lifecycle (active/sunset), compliance drivers, and repo links.
- ☐ Export registry to CSV/JSON; integrate with CI labels per repo.

## APPSEC-4 — Stand Up an App Risk Register

|                            |   |
|----------------------------|---|
| <b>Epic / Feature</b>      | Risk Management   |
| <b>Business Value</b>      | turn threats into tracked items tied to owners, dates, and treatments |
| <b>Priority / Estimate</b> | Priority: Must SP: 3  |
| <b>Persona</b>             | Risk manager  |
| <b>Dependencies</b>        | Inventory completed, risk rubric                                      |
| <b>Assumptions / Risks</b> | Over-long registers stall; keep to top risks per app                  |

**Story** *As a Risk manager, I want to Stand Up an App Risk Register so that turn threats into tracked items tied to owners, dates, and treatments.*

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### Tasks

- ☐ Define likelihood/impact rubric and treatment options.
- ☐ Run a 60–90 min risk workshop for two critical apps.
- ☐ Create entries with owner, due date, and linkage to epics/stories.
- ☐ Establish intake workflow (new risk → triage → acceptance).

## APPSEC-5 — Publish Secure Reference Architectures

|                            |   |
|----------------------------|---|
| <b>Epic / Feature</b>      | Secure Design Patterns  |
| <b>Business Value</b>      | give teams golden paths that bake in zero-trust and least privilege |
| <b>Priority / Estimate</b> | Priority: Should SP: 5  |
| <b>Persona</b>             | Security architect  |
| <b>Dependencies</b>        | Architecture council, platform patterns                             |
| <b>Assumptions / Risks</b> | Architecture drift; add linters/policies to reinforce               |

**Story** *As a Security architect, I want to Publish Secure Reference Architectures so that give teams golden paths that bake in zero-trust and least privilege.*

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### Tasks

- ☐ Diagram monolith, microservices, async/event-driven, and serverless patterns.
- ☐ Annotate controls per tier (authn, mTLS, input validation, logging, backups).
- ☐ Provide IaC/app templates implementing the patterns.
- ☐ Add “choose-by-facts” table and decision records (ADRs).



## APPSEC-6 — Adopt a Tiered SSDLC Policy

|                            |  |
|----------------------------|--|
| <b>Epic / Feature</b>      | SSDLC Alignment  |
| <b>Business Value</b>      | embed right-sized checks by risk tier to shift left without friction |
| <b>Priority / Estimate</b> | Priority: Must SP: 5   |
| <b>Persona</b>             | AppSec lead  |
| <b>Dependencies</b>        | Engineering buy-in, CI access  |
| <b>Assumptions / Risks</b> | Over-gating; start minimal and ratchet                               |

**Story** *As a AppSec lead, I want to Adopt a Tiered SSDLC Policy so that embed right-sized checks by risk tier to shift left without friction.*

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### Tasks

- ☐ Define controls per SDLC phase and per tier (ASVS/SSDF-aligned).
- ☐ Wire required checks in CI (lint, SAST, SCA) with pass/fail thresholds.
- ☐ Add DoD/DoR updates to team templates referencing security checks.
- ☐ Document exceptions/waivers with expiry and approval path.

## APPSEC-7 — Launch the AppSec Champions Program

|                            |   |
|----------------------------|---|
| <b>Epic / Feature</b>      | Operating Model & Teams   |
| <b>Business Value</b>      | scale AppSec via embedded advocates and faster issue resolution |
| <b>Priority / Estimate</b> | Priority: Should SP: 3  |
| <b>Persona</b>             | AppSec lead   |
| <b>Dependencies</b>        | Managers' support, time allocation                              |
| <b>Assumptions / Risks</b> | Attrition/adoption risk; include incentives and community time  |

**Story** *As a AppSec lead, I want to Launch the AppSec Champions Program so that scale AppSec via embedded advocates and faster issue resolution.*

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### Tasks

- ☐ Define selection rubric, responsibilities, and incentives.
- ☐ Create monthly office hours and a champions Slack channel.
- ☐ Provide starter kit (checklists, threat modeling kit, PR review guide).
- ☐ Track participation and outcomes (bugs prevented, PRs reviewed).

## APPSEC-8 — Standardize Threat Modeling

|                            |   |
|----------------------------|---|
| <b>Epic / Feature</b>      | Threat Modeling   |
| <b>Business Value</b>      | catch design flaws early and convert threats into actionable requirements |
| <b>Priority / Estimate</b> | Priority: Must SP: 5  |
| <b>Persona</b>             | Security champion   |
| <b>Dependencies</b>        | DFD notation, templates   |
| <b>Assumptions / Risks</b> | Analysis paralysis; time-box sessions and prioritize                      |

**Story** *As a Security champion, I want to Standardize Threat Modeling so that catch design flaws early and convert threats into actionable requirements.*

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### Tasks

- ☐ Choose method (STRIDE/LINDDUN/misuse cases) and templates.
- ☐ Run two sessions on different architectures; capture DFDs and threats.
- ☐ Translate top threats into NFRs and tests.
- ☐ Add a reusable threats/mitigations catalogue to the wiki.

## APPSEC-9 — Publish Secure Coding Standards

|                            |  |
|----------------------------|--|
| <b>Epic / Feature</b>      | Secure Coding  |
| <b>Business Value</b>      | reduce recurring vulnerabilities and speed reviews with clear checklists |
| <b>Priority / Estimate</b> | Priority: Must SP: 3   |
| <b>Persona</b>             | Tech lead  |
| <b>Dependencies</b>        | Language stacks agreed   |
| <b>Assumptions / Risks</b> | One-size-fits-none risk; tailor per language                             |

**Story** *As a Tech lead, I want to Publish Secure Coding Standards so that reduce recurring vulnerabilities and speed reviews with clear checklists.*

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### Tasks

- ☐ Write per-language standards (input validation, encoding, secrets, crypto).
- ☐ Add PR checklists and reviewer heuristics.
- ☐ Provide pre-commit hooks and code templates.
- ☐ Run a 45-min training; record and link in the repo.

## APPSEC-10 — Operationalize SAST/SCA/DAST/IAST

|                            |  |
|----------------------------|--|
| <b>Epic / Feature</b>      | Security Testing   |
| <b>Business Value</b>      | improve signal-to-noise and make security checks part of normal CI |
| <b>Priority / Estimate</b> | Priority: Must SP: 5   |
| <b>Persona</b>             | Automation engineer  |
| <b>Dependencies</b>        | Scanner licenses, CI capacity                                      |
| <b>Assumptions / Risks</b> | Finding overload; enforce “new high/critical = fail”               |

**Story** *As a Automation engineer, I want to Operationalize SAST/SCA/DAST/IAST so that improve signal-to-noise and make security checks part of normal CI.*

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### Acceptance Criteria (BDD)

|                 |  |
|-----------------|--|
| <b>Scenario</b> | Happy path   |
| <b>Given</b>    | the target repositories, environments, and program context are available                       |
| <b>When</b>     | the <i>Hands-on Objectives</i> for this chapter are executed                                   |
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### Tasks

- ☐ Integrate SAST & SCA in CI; upload SARIF for code scanning.
- ☐ Stand up targeted DAST/IAST for a high-risk app.
- ☐ Establish severity thresholds, suppressions with expiry, and routing.
- ☐ Publish weekly trend reports and backlog hygiene metrics.

## APPSEC-11 — Generate SBOMs & Sign Artifacts

|                            |   |
|----------------------------|---|
| <b>Epic / Feature</b>      | Supply Chain Security   |
| <b>Business Value</b>      | improve provenance and compliance while enabling safe updates |
| <b>Priority / Estimate</b> | Priority: Must SP: 5  |
| <b>Persona</b>             | Release engineer  |
| <b>Dependencies</b>        | SBOM tool, signer   |
| <b>Assumptions / Risks</b> | Tooling gaps; start with top languages/images                 |

**Story** *As a Release engineer, I want to Generate SBOMs & Sign Artifacts so that improve provenance and compliance while enabling safe updates.*

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### Tasks

- ☐ Produce SBOM (CycloneDX/SPDX) during builds; attach to artifacts.
- ☐ Sign artifacts/images and verify in promotion gates.
- ☐ Document third-party source allowlist and review cadence.
- ☐ Add attestation checks to release workflow.

## APPSEC-12 — Enforce API Security Standards

|                            |  |
|----------------------------|--|
| <b>Epic / Feature</b>      | API Security   |
| <b>Business Value</b>      | protect data and consumers via consistent auth, validation, and quotas |
| <b>Priority / Estimate</b> | Priority: Must SP: 5   |
| <b>Persona</b>             | API owner  |
| <b>Dependencies</b>        | OpenAPI/AsyncAPI specs   |
| <b>Assumptions / Risks</b> | Shadow APIs; tie standard to inventory                                 |

**Story** *As a API owner, I want to Enforce API Security Standards so that protect data and consumers via consistent auth, validation, and quotas.*

**Non-Functional** Performance Security Reliability Accessibility Privacy i18n

### Acceptance Criteria (BDD)

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### Tasks

- ☐ Write API security standard (authn/z, schema validation, rate limiting).
- ☐ Add contract tests and security tests to CI.
- ☐ Gate breaking changes and insecure defaults in PRs.
- ☐ Add discovery checks for undocumented endpoints.

## APPSEC-13 — Publish Cloud AppSec Baseline

|                            |   |
|----------------------------|---|
| <b>Epic / Feature</b>      | Cloud-Native App Security                                       |
| <b>Business Value</b>      | set secure defaults for identity, secrets, network, and logging |
| <b>Priority / Estimate</b> | Priority: Should SP: 3  |
| <b>Persona</b>             | Cloud security engineer   |
| <b>Dependencies</b>        | Cloud org access  |
| <b>Assumptions / Risks</b> | Drift risk; add config conformance packs                        |

**Story** *As a Cloud security engineer, I want to Publish Cloud AppSec Baseline so that set secure defaults for identity, secrets, network, and logging.*

**Non-Functional** Performance Security Reliability Accessibility Privacy i18n

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### Tasks

- ☐ Define shared-responsibility for app teams; list must-have controls.
- ☐ Provide bootstrap templates for logging/telemetry and secrets.
- ☐ Add guardrails and conformance checks.
- ☐ Document carve-outs and exception review.



## APPSEC-14 — Harden Containers & Kubernetes

|                            |  |
|----------------------------|--|
| <b>Epic / Feature</b>      | Container/K8s Security   |
| <b>Business Value</b>      | reduce runtime risk with minimal images and admission policies |
| <b>Priority / Estimate</b> | Priority: Must SP: 5   |
| <b>Persona</b>             | Platform engineer  |
| <b>Dependencies</b>        | Registry, admission controller                                 |
| <b>Assumptions / Risks</b> | Breakages; start in warn mode, then enforce                    |

**Story** *As a Platform engineer, I want to Harden Containers & Kubernetes so that reduce runtime risk with minimal images and admission policies.*

**Non-Functional** Performance Security Reliability Accessibility Privacy i18n

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|                 |  |
|-----------------|--|
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| <b>Given</b>    | the target repositories, environments, and program context are available                       |
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### Tasks

- ☐ Create minimal, scanned base images; publish usage guidance.
- ☐ Enforce image provenance and vulnerability thresholds at admission.
- ☐ Apply Pod Security standards, RBAC, and NetworkPolicies.
- ☐ Add runtime policies for sensitive syscalls and egress.

## APPSEC-15 — Centralize Secrets & Workload Identity

|                            |   |
|----------------------------|---|
| <b>Epic / Feature</b>      | Secrets & IAM   |
| <b>Business Value</b>      | eliminate hardcoded secrets and reduce blast radius via least privilege |
| <b>Priority / Estimate</b> | Priority: Must SP: 3  |
| <b>Persona</b>             | Service owner   |
| <b>Dependencies</b>        | Secrets manager, IAM  |
| <b>Assumptions / Risks</b> | Migration risk; migrate one app first                                   |

**Story** *As a Service owner, I want to Centralize Secrets & Workload Identity so that eliminate hardcoded secrets and reduce blast radius via least privilege.*

**Non-Functional** Performance Security Reliability Accessibility Privacy i18n

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### Tasks

- ☐ Move secrets to a managed store with rotation.
- ☐ Adopt workload identity (mTLS/JWT/OIDC) for services.
- ☐ Review and minimize IAM policies per service.
- ☐ Add secrets scanning in CI and pre-commit.

## APPSEC-16 — Unify Vulnerability Intake & SLAs

|                            |   |
|----------------------------|---|
| <b>Epic / Feature</b>      | Vulnerability Management  |
| <b>Business Value</b>      | prioritize by exploitability and asset criticality to reduce MTTR |
| <b>Priority / Estimate</b> | Priority: Must SP: 5  |
| <b>Persona</b>             | Vuln management owner   |
| <b>Dependencies</b>        | Scanner feeds, ticketing  |
| <b>Assumptions / Risks</b> | Duplicate noise; dedupe by CWE/package/asset                      |

**Story** *As a Vuln management owner, I want to Unify Vulnerability Intake & SLAs so that prioritize by exploitability and asset criticality to reduce MTTR.*

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### Tasks

- ☐ Define prioritization (CVSS/EPSS + criticality + exposure).
- ☐ Create unified intake and dedup logic across code/deps/containers/infra.
- ☐ Set SLAs per tier and auto-create tickets with owners and due dates.
- ☐ Build dashboard (age buckets, MTTR, reopen rate).

## APPSEC-17 — Integrate AppSec into Incident Response

|                            |  |
|----------------------------|--|
| <b>Epic / Feature</b>      | App IR   |
| <b>Business Value</b>      | speed containment and comms for app-specific incidents |
| <b>Priority / Estimate</b> | Priority: Should SP: 3                                 |
| <b>Persona</b>             | IR lead  |
| <b>Dependencies</b>        | On-call schedule, playbooks                            |
| <b>Assumptions / Risks</b> | Confusion in roles; publish contact matrix             |

**Story** *As a IR lead, I want to Integrate AppSec into Incident Response so that speed containment and comms for app-specific incidents.*

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### Tasks

- ☐ Write app-centric playbooks (auth bypass, data exfil, supply-chain).
- ☐ Define evidence capture and comms templates (legal/regulatory triggers).
- ☐ Run a tabletop; record actions and owners.
- ☐ Add lessons learned template and review cadence.

## APPSEC-18 — Set AI/ML Security Guardrails

|                            |   |
|----------------------------|---|
| <b>Epic / Feature</b>      | AI/ML Security  |
| <b>Business Value</b>      | prevent model abuse and data leakage with standards and tests |
| <b>Priority / Estimate</b> | Priority: Could SP: 5   |
| <b>Persona</b>             | ML product owner  |
| <b>Dependencies</b>        | Model inventory, logs   |
| <b>Assumptions / Risks</b> | Novel threats; start with one model/feature                   |

**Story** As a ML product owner, I want to Set AI/ML Security Guardrails so that prevent model abuse and data leakage with standards and tests.

**Non-Functional** Performance Security Reliability Accessibility Privacy i18n

### Acceptance Criteria (BDD)

|                 |  |
|-----------------|--|
| <b>Scenario</b> | Happy path   |
| <b>Given</b>    | the target repositories, environments, and program context are available                       |
| <b>When</b>     | the <i>Hands-on Objectives</i> for this chapter are executed                                   |
| <b>Then</b>     | the stated <i>Outcomes/Deliverables</i> for this chapter are produced, reviewed, and published |

**Definition of Ready:** Persona clear; AC drafted; Dependencies known; Estimate set. • **Definition of Done:** All ACs pass; Tests green; Security/allly checks; Docs updated; Deployed/flagged.

### Tasks

- ☐ Threat-model one ML feature (prompt injection, data poisoning, model theft).
- ☐ Add adversarial test cases and output filters.
- ☐ Log model interactions for abuse patterns.
- ☐ Document red-team scenarios and escalation paths.

## APPSEC-19 — Automate Evidence & ChatOps

|                            |   |
|----------------------------|---|
| <b>Epic / Feature</b>      | Automation & Orchestration  |
| <b>Business Value</b>      | reduce toil and raise adoption with bots, policies-as-code, and summaries |
| <b>Priority / Estimate</b> | Priority: Should SP: 3  |
| <b>Persona</b>             | Automation engineer   |
| <b>Dependencies</b>        | Bot account, APIs   |
| <b>Assumptions / Risks</b> | Alert fatigue; keep messages concise with links                           |

**Story** *As a Automation engineer, I want to Automate Evidence & ChatOps so that reduce toil and raise adoption with bots, policies-as-code, and summaries.*

**Non-Functional** Performance Security Reliability Accessibility Privacy i18n

### Acceptance Criteria (BDD)

**Scenario** Happy path

**Given** the target repositories, environments, and program context are available

**When** the *Hands-on Objectives* for this chapter are executed

**Then** the stated *Outcomes/Deliverables* for this chapter are produced, reviewed, and published

**Definition of Ready:** Persona clear; AC drafted; Dependencies known; Estimate set. • **Definition of Done:** All ACs pass; Tests green; Security/allly checks; Docs updated; Deployed/flagged.

### Tasks

- ☐ Auto-comment PRs with scanner summaries and fix hints.
- ☐ Scaffold “new service” with secure defaults via a bot command.
- ☐ Export evidence (SBOM, test reports, approvals) automatically.
- ☐ Maintain an automation backlog with value stream mapping.

## APPSEC-20 — Ship Metrics Dashboard & Maturity Plan

|                            |   |
|----------------------------|---|
| <b>Epic / Feature</b>      | Metrics & Maturity  |
| <b>Business Value</b>      | prove risk reduction and align roadmap with measurable outcomes |
| <b>Priority / Estimate</b> | Priority: Must SP: 3  |
| <b>Persona</b>             | Program manager   |
| <b>Dependencies</b>        | Data sources, dashboard tool                                    |
| <b>Assumptions / Risks</b> | Metric cargo-cult; define glossary and collection method        |

**Story** *As a Program manager, I want to Ship Metrics Dashboard & Maturity Plan so that prove risk reduction and align roadmap with measurable outcomes.*

**Non-Functional** Performance Security Reliability Accessibility Privacy i18n

### Acceptance Criteria (BDD)

**Scenario** Happy path

**Given** the target repositories, environments, and program context are available

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### Tasks

- ☐ Choose north-star KPIs (risk reduced, MTTR, escape rate) and definitions.
- ☐ Build a dashboard with trends and targets; segment by tier/team.
- ☐ Run baseline maturity assessment (e.g., SAMM) and publish a 12-month plan.
- ☐ Review quarterly and adjust priorities based on results.

## Capstone & Milestones (Reference)

**Foundation:** Charter, control dictionary, inventory/tiering, risk register.

**Build-in Security:** Reference architectures, SSDLC, champions, secure coding, testing.

**Platform Guardrails:** SBOM/signing, API/cloud/K8s baselines, secrets/IAM.

**Operate & Improve:** Vuln SLAs, App IR, AI/ML guardrails, automation, metrics+maturity.

## 2 Resequenced AppSec Program User Stories

### Rationale for the Lifecycle Order

This sequence minimizes rework, establishes authority and budget before tooling, and pushes defect discovery as far “left” as practical while ensuring there are environments and policies to enforce decisions. It also follows common guidance from secure development frameworks (e.g., governance first, then design, then build, then test, then operate).

- **Program Foundations & Strategy:** Establish charter, scope, stakeholders, funding, and governance. Without decision rights and resourcing, downstream controls lack adoption and durability.
- **Asset & Risk Baseline:** Inventory applications, classify data, and profile threats so that standards and controls are risk-informed rather than generic.
- **Standards & Training:** Define secure coding standards, NFRs, and playbooks; stand up a

security champions network and training so teams can self-serve and build correctly the first time.

- **Design-Time Controls:** Threat modeling and architecture review catch high-severity design issues before code and infrastructure multiply the blast radius.
- **Build-Time Controls:** Integrate SAST, SCA, and secret scanning into developer workflows and CI so findings appear where developers work and before artifacts ship.
- **IaC & Cloud Security:** Apply policy-as-code to Terraform/Kubernetes and baseline cloud configurations; establish guardrails so environments match the design intent.
- **Test-Time Controls:** Exercise running builds with DAST/IAST/fuzz/API tests to find issues that static methods cannot see (auth flows, desync, runtime context).
- **Release & Runtime Controls:** Require signing/attestation and enforce deploy gates; add runtime protections (WAF, admission controllers, container runtime rules) to contain residual risk.
- **Third-Party & Supply Chain:** Govern vendors and dependencies; collect and validate SBOMs and provenance to reduce inherited risk.
- **Vulnerability Management & Pentest:** Track, triage, and remediate across the estate with clear SLAs; add periodic pentests/bug bounty to validate control efficacy.
- **Compliance & Reporting:** Map controls to standards and expose metrics/dashboards after control telemetry exists, enabling audit readiness without guesswork.
- **Program Operations & Continuous Improvement:** Stand up intake, service catalog, KPIs/KRIs, and retros to prioritize work and improve signal-to-noise over time.

### Entry/Exit Guidance for Each Phase (lightweight)

- *Foundations:* Inputs: business objectives. Outputs: charter, RACI, budget, OKRs, governance cadence.
- *Asset/Risk:* Inputs: org chart, repos, cloud accounts. Outputs: app inventory, data classes, risk register.
- *Standards/Training:* Inputs: risks. Outputs: standards/NFRs, training plan, champions roster.
- *Design:* Inputs: standards. Outputs: threat models, reviewed architectures, risk tickets with owners.
- *Build:* Inputs: dev pipelines. Outputs: SAST/SCA/secret scans, SBOMs, build-hardening settings.
- *IaC/Cloud:* Inputs: IaC repos, clusters. Outputs: policy-as-code, baseline configs, drift alerts.
- *Test:* Inputs: deployable builds/env. Outputs: DAST/IAST/fuzz reports linked to backlog.
- *Release/Runtime:* Inputs: artifacts. Outputs: signed images, attestations, enforced gates, runtime rules.
- *Third-Party:* Inputs: vendors/deps. Outputs: SBOM intake, supplier risk ratings, compensating controls.



- *Vuln Mgmt/Pentest*: Inputs: findings. Outputs: SLAs, risk acceptance process, validation via tests.
- *Compliance/Reporting*: Inputs: control telemetry. Outputs: control-to-standard mappings, dashboards.
- *Ops/CI*: Inputs: all telemetry. Outputs: intake flow, service catalog, retros, maturity roadmap updates.

## Quality Checks and Gaps

Use this checklist to validate coverage and identify new stories to add:

- **API Security**: Explicit stories for API design reviews, authentication/authorization patterns, and API testing (rate limits, injection, desync).
- **Secrets and KMS**: Centralized secrets management, rotation policies, and detection of hard-coded secrets across repos and images.
- **SBOM Ingestion & Policy**: Generate SBOMs in CI; ingest to a registry; enforce policies (deny vulnerable or unknown components).
- **Build Attestations & SLSA**: Sign artifacts, capture provenance, and gate releases on attestations.
- **Logging/Telemetry & Alert Routing**: Ensure applications emit security-relevant logs; define parsing, retention, and alert destinations.
- **Privacy Threat Modeling**: Add privacy misuse cases and data-minimization checks to design reviews.
- **AuthN/AuthZ Patterns**: Standardize token lifetimes, session management, and role design across services.
- **Incident Response Integration**: Connect AppSec findings to CSIRT runbooks; define rapid triage paths and severity thresholds.
- **Runtime Controls for Containers/K8s**: Admission policies, image allow-lists, runtime syscall/behavior rules.
- **Mobile/Desktop AppSec (if applicable)**: Platform-specific storage, transport, and jailbreak/root detection controls.
- **Risk-Based CD Gates**: Promotion pipelines that vary tests and approvals by risk tier and data classification.
- **Threat Intelligence Feedback**: Intake external intel and reflect in standards, tests, and block lists.
- **Metrics/OKRs**: Define KRIs and KPIs (MTTR, fix rate, mean risk score) and publish to dashboards.
- **Developer Onboarding & Self-Service**: Templates, golden repos, and paved roads that encode standards by default.
- **Title Hygiene**: Ensure story titles clearly state control area (e.g., “Threat Modeling for Service X”) to improve search and automation.

## Program Foundations & Strategy

## APPSEC-1 — Publish an AppSec Program Charter

|                            |  |
|----------------------------|--|
| <b>Epic / Feature</b>      | Program Foundations  |
| <b>Business Value</b>      | align engineering, product, and risk on scope, value, and success criteria |
| <b>Priority / Estimate</b> | Priority: Must SP: 3   |
| <b>Persona</b>             | AppSec lead  |
| <b>Dependencies</b>        | Org strategy, security policy, product roadmap                             |
| <b>Assumptions / Risks</b> | Scope creep risk; time-box charter v1 and plan iterative updates           |

**Story** *As a AppSec lead, I want to Publish an AppSec Program Charter so that align engineering, product, and risk on scope, value, and success criteria.*

**Non-Functional** Performance Security Reliability Accessibility Privacy i18n

### Acceptance Criteria (BDD)

**Scenario** Happy path

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### Tasks

- ☐ Draft a one-page charter: mission, scope, definitions, interfaces, success metrics.
- ☐ Create a stakeholder map and RACI for threat modeling, testing, vuln mgmt, IR.
- ☐ Review with Eng/Product/Risk; capture decisions and open questions.
- ☐ Publish in the handbook repo; version as living document.

## APPSEC-6 — Adopt a Tiered SSDLC Policy

|                            |  |
|----------------------------|--|
| <b>Epic / Feature</b>      | SSDLC Alignment  |
| <b>Business Value</b>      | embed right-sized checks by risk tier to shift left without friction |
| <b>Priority / Estimate</b> | Priority: Must SP: 5   |
| <b>Persona</b>             | AppSec lead  |
| <b>Dependencies</b>        | Engineering buy-in, CI access  |
| <b>Assumptions / Risks</b> | Over-gating; start minimal and ratchet                               |

**Story** *As a AppSec lead, I want to Adopt a Tiered SSDLC Policy so that embed right-sized checks by risk tier to shift left without friction.*

**Non-Functional** Performance Security Reliability Accessibility Privacy i18n

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### Tasks

- ☐ Define controls per SDLC phase and per tier (ASVS/SSDF-aligned).
- ☐ Wire required checks in CI (lint, SAST, SCA) with pass/fail thresholds.
- ☐ Add DoD/DoR updates to team templates referencing security checks.
- ☐ Document exceptions/waivers with expiry and approval path.

## APPSEC-20 — Ship Metrics Dashboard & Maturity Plan

|                            |   |
|----------------------------|---|
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