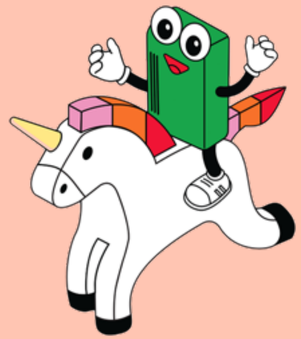
DevSecOps and Secure Incident Response

@QuintessenceAnx
Developer Advocate @ PagerDuty



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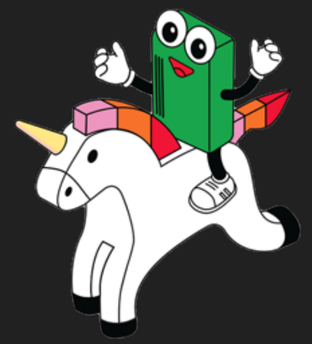
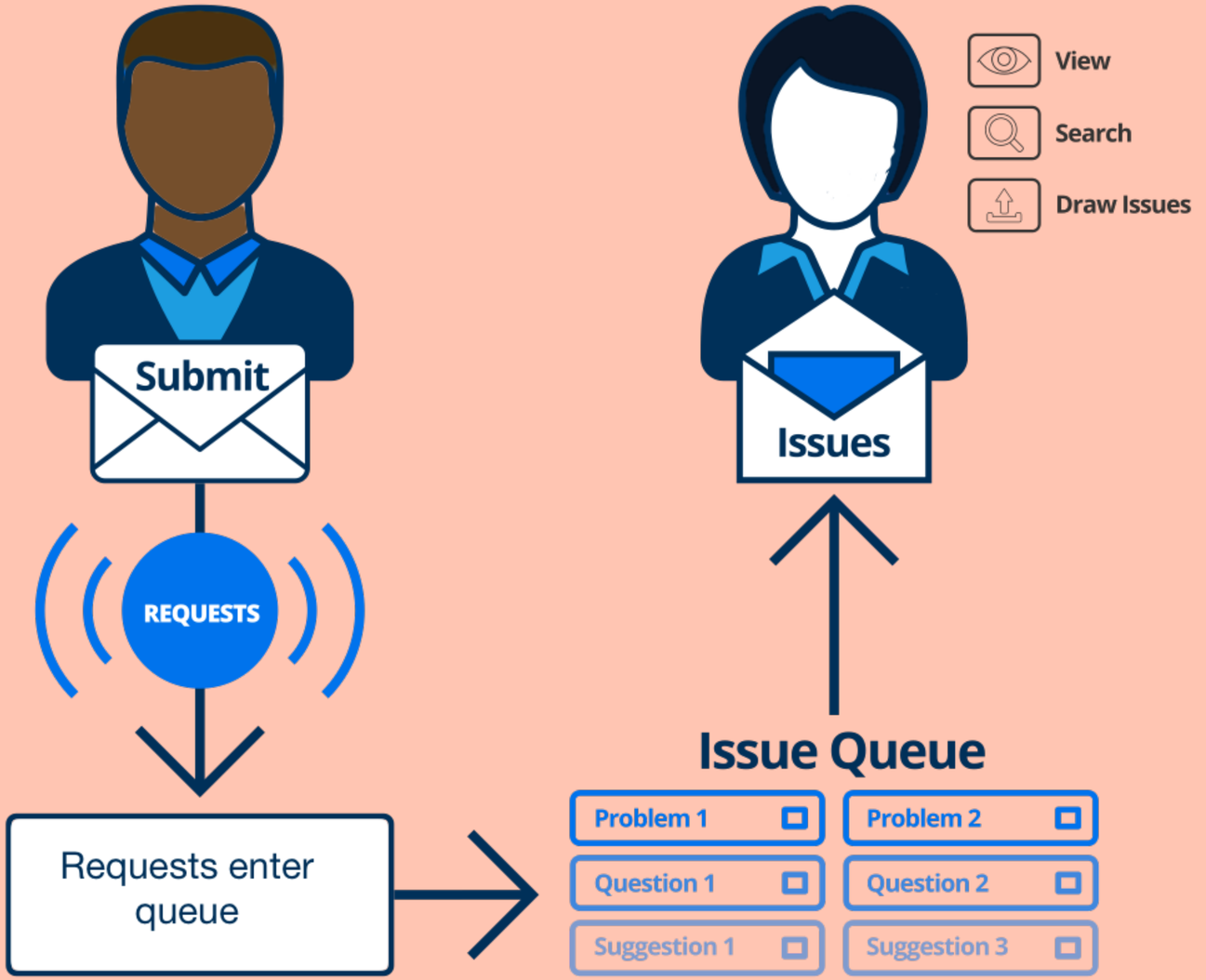


Don't panic

The Now



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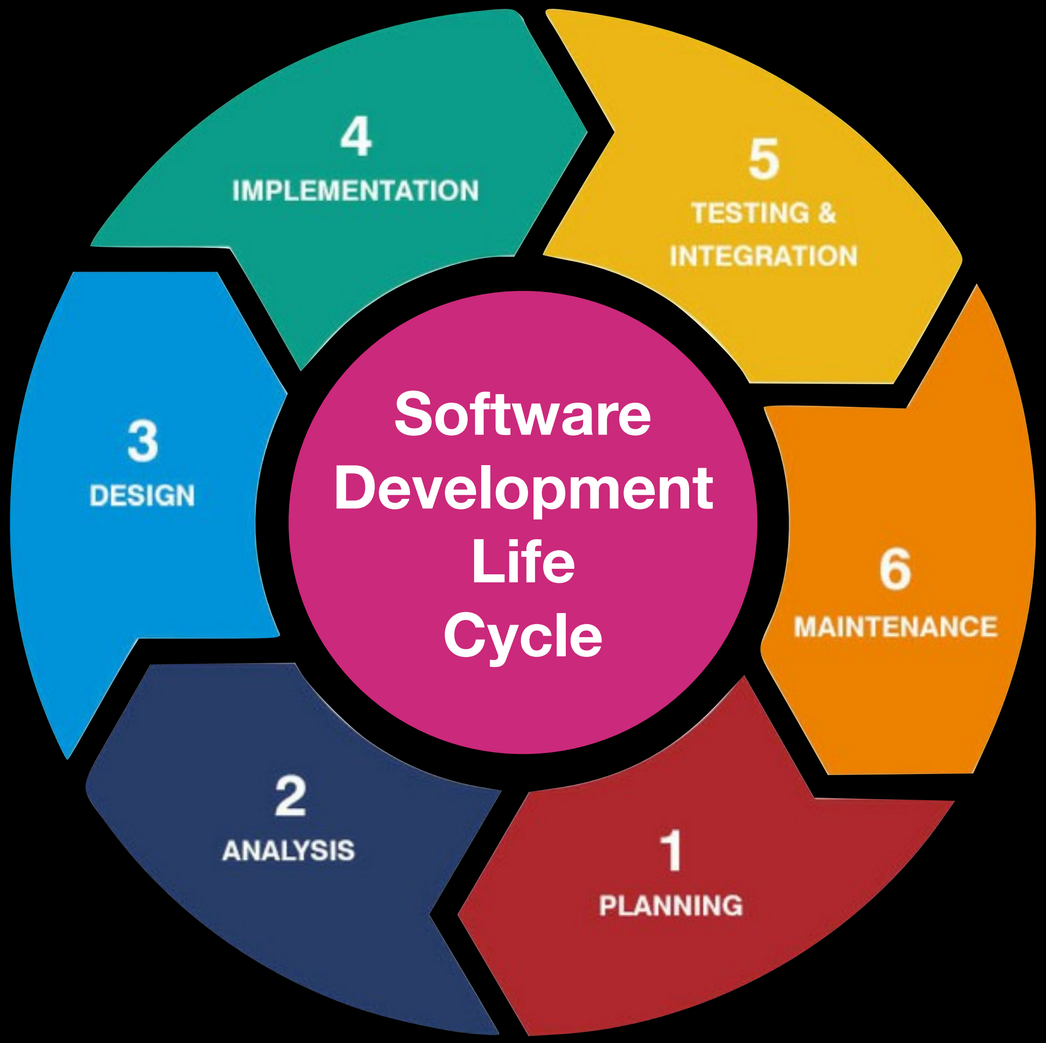

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Vault over "The Wall"

for

Security Review

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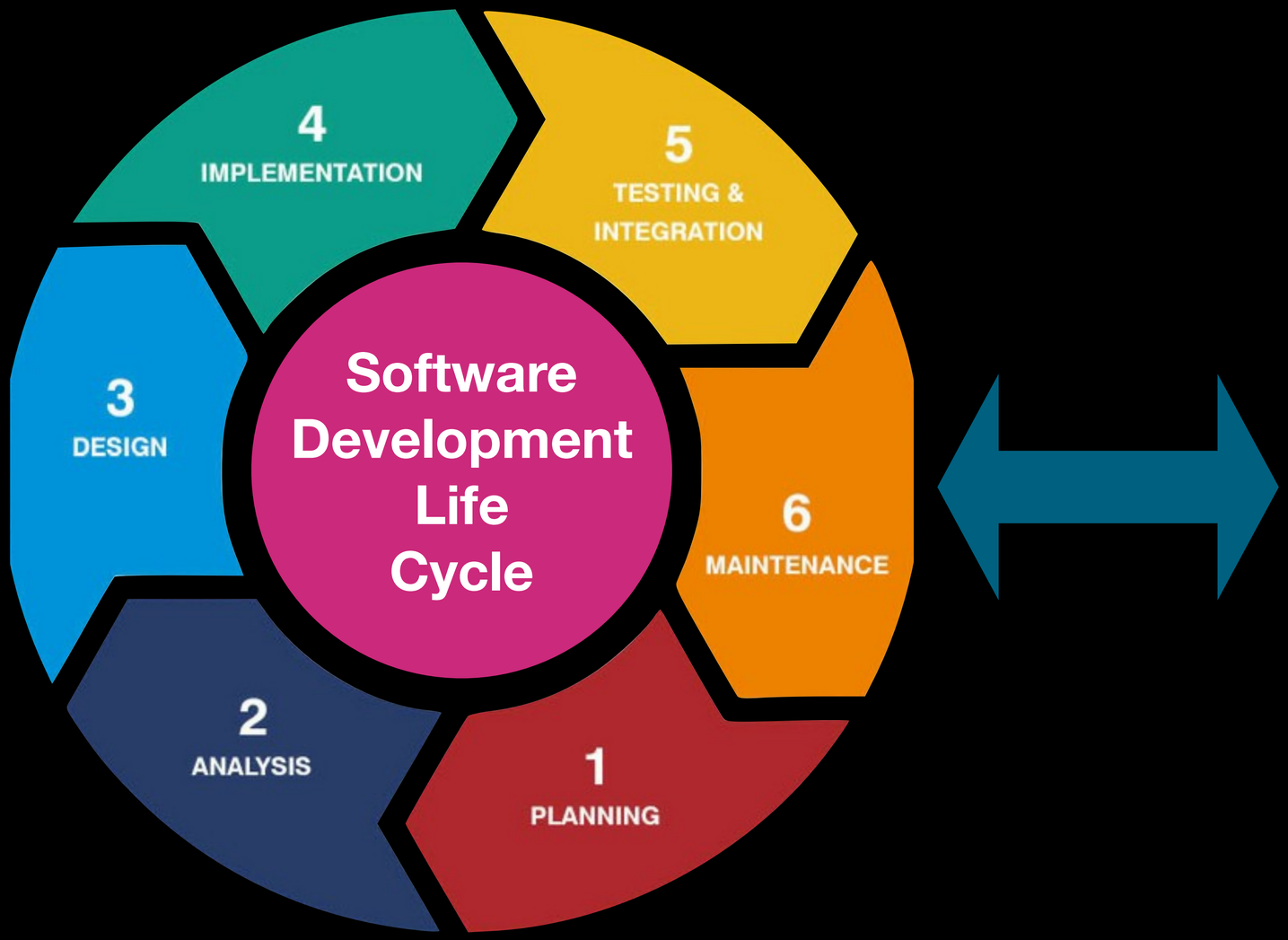

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DevSecOps

What is DevSecOps?

DevSecOps stands for development, security, and operations. DevSecOps seeks to integrate security across the SDLC and streamline the workflows between dev, sec, and ops.

What DevSecOps is not

DevSecOps is ***not*** replacing security with dev and/or ops, ***or*** expecting dev and/or ops to become security specialists, ***or*** expecting security to become devs and/or ops.

Phew.

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How?

The Secure SDLC + Shifting Left

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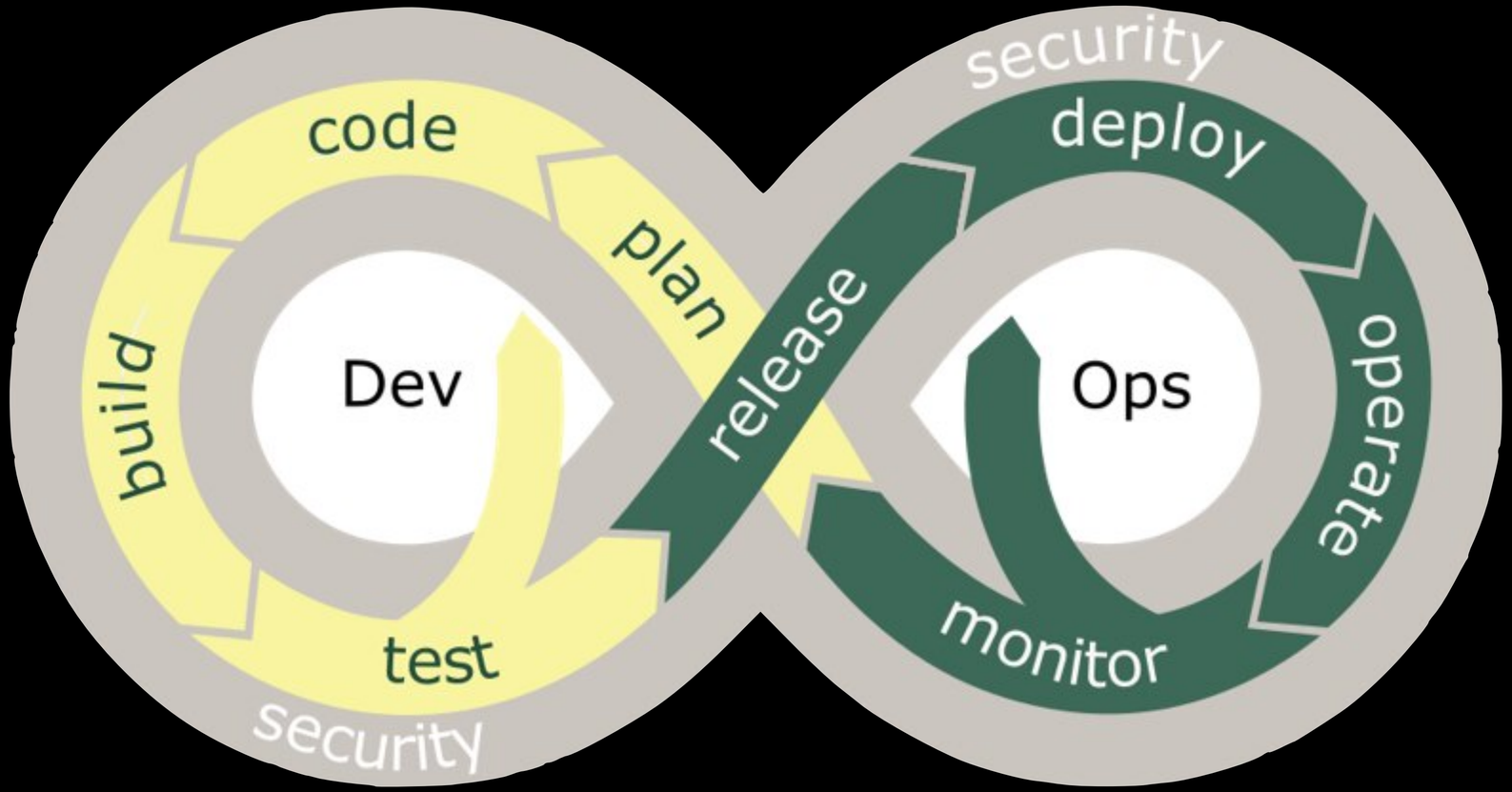

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Secure Development Lifecycle - Policies, Standards, Controls and Best Practices

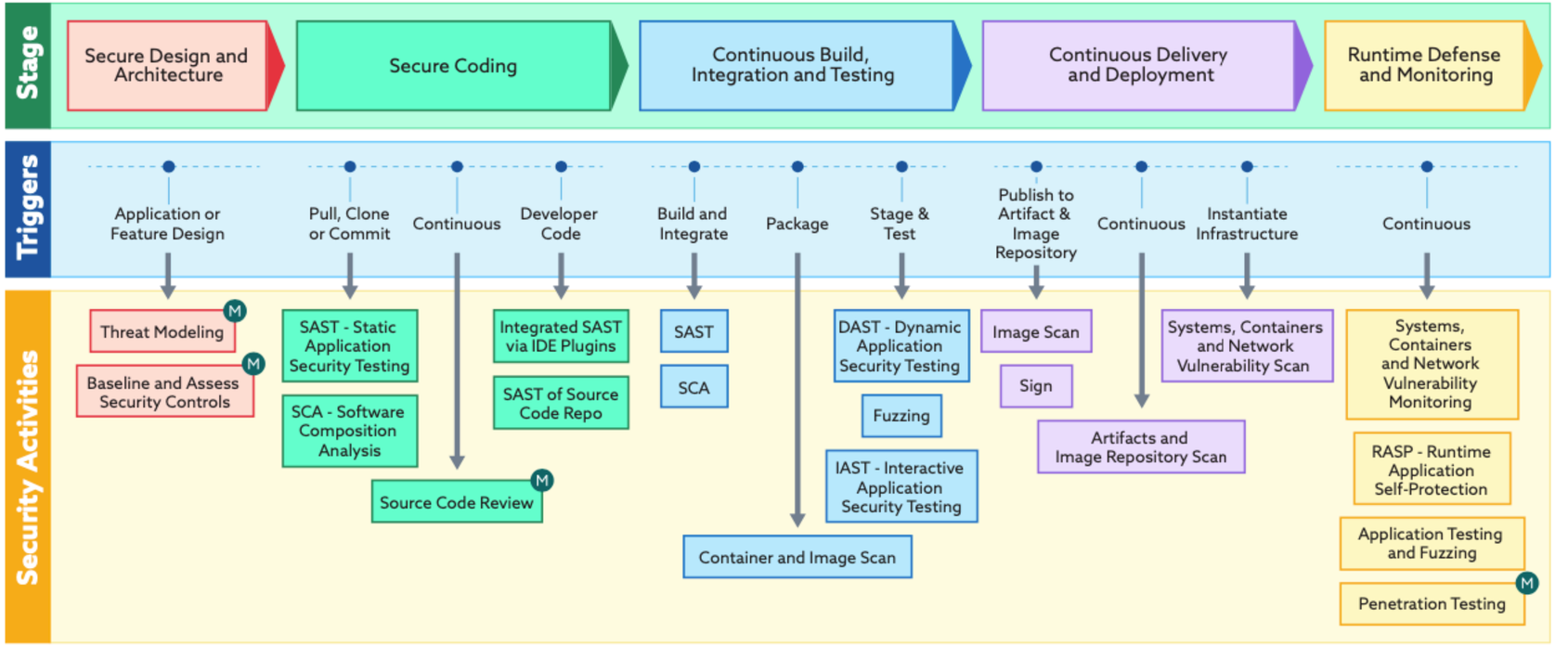

Figure 1: The CSA DevSecOps Delivery Pipeline

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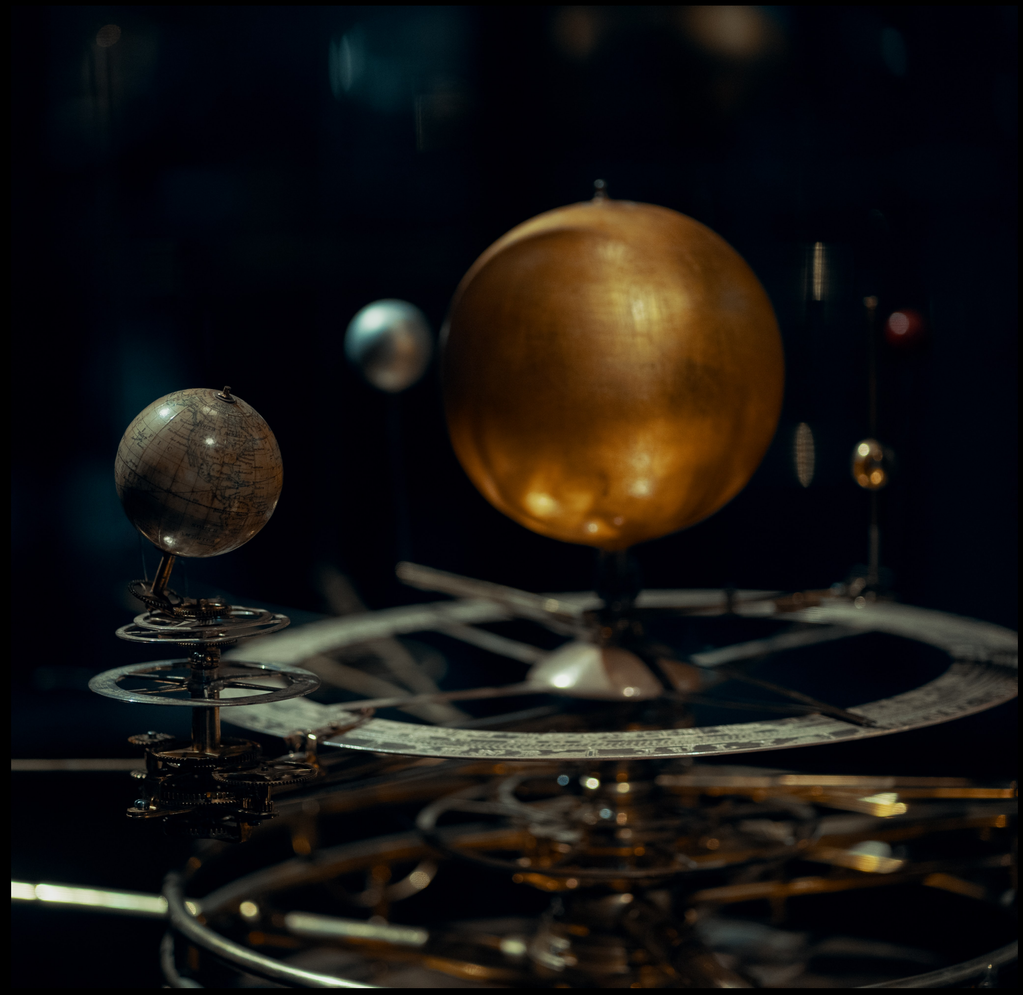
SecOps Activities

- Secure architecture / design
- Threat modeling
- Testing, e.g. SAST and DAST
- Scanning images and dependencies
- Fuzzing
- And more!



Shift Left

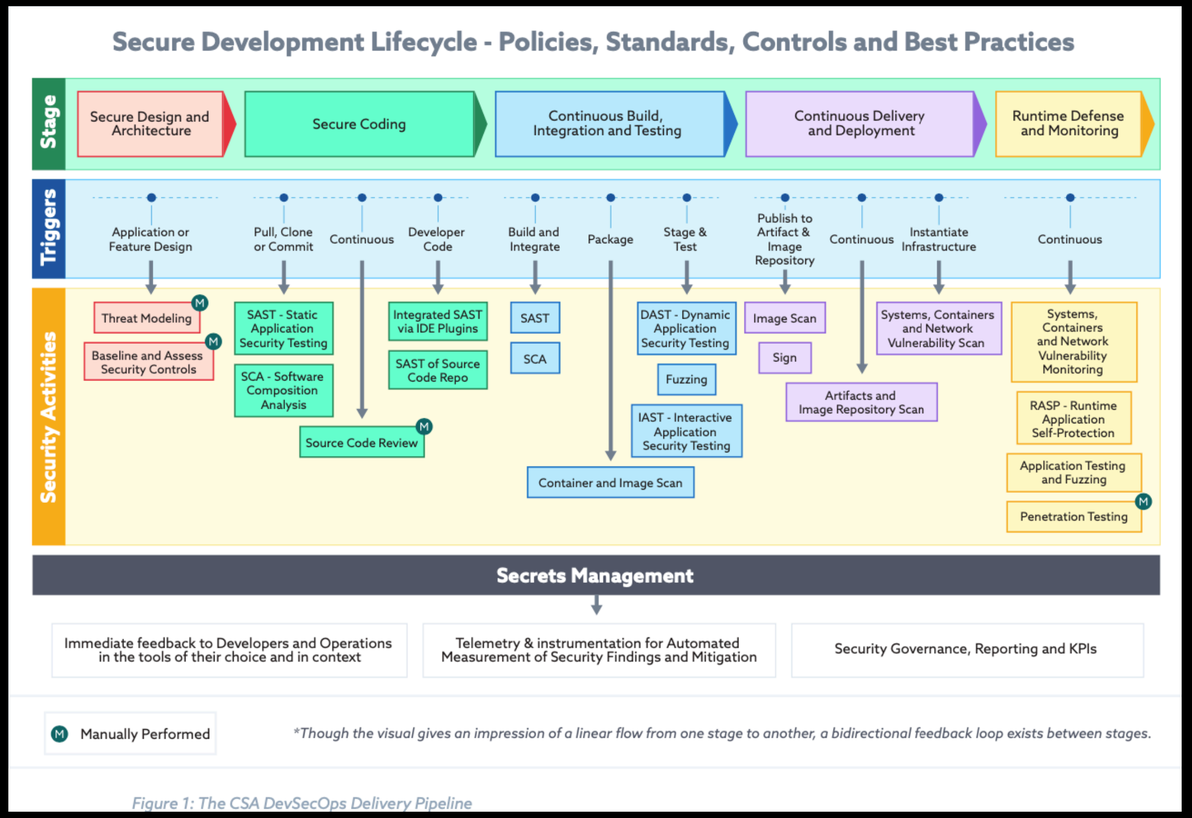


Figure 1: The CSA DevSecOps Delivery Pipeline

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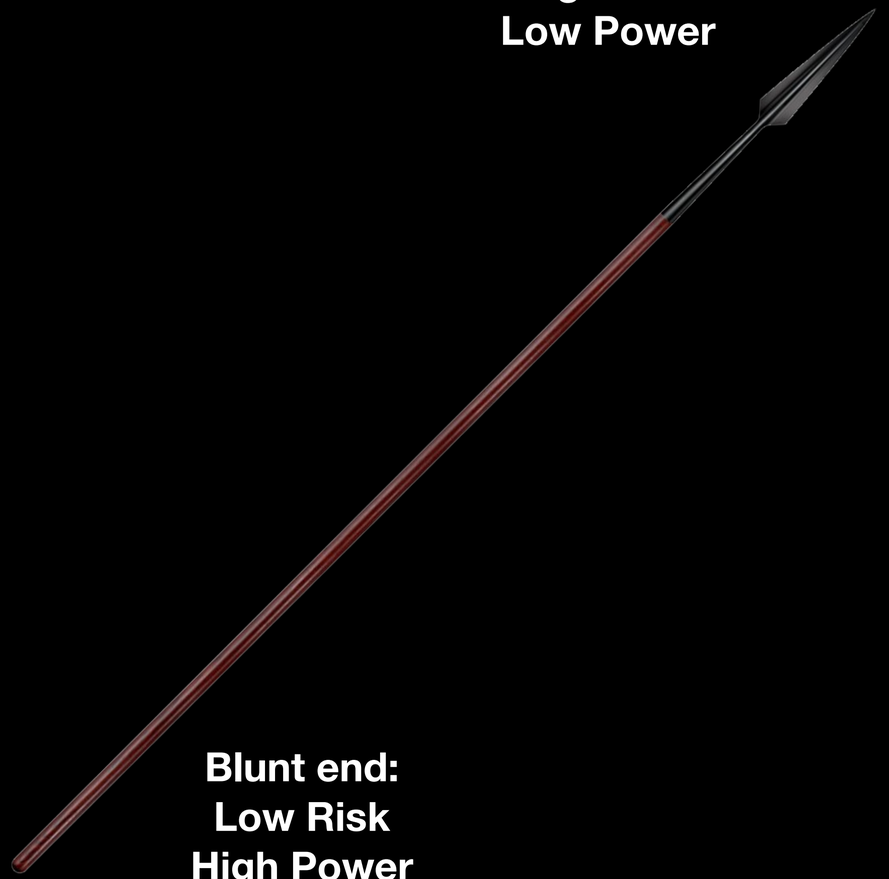
How?

Cultural Support

Humans.

Sharp end:
High Risk
Low Power



Blunt end:
Low Risk
High Power

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Exec Buy-in

Never trick staff, *ever*.

Training

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Full Service Ownership

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Capture the Flag

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Threat Modeling

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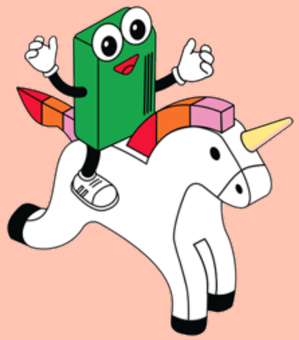
Secure Incident Response



1. Stop the attack in progress.
2. Cut off the attack vector.
3. Assemble the response team.
4. Isolate affected instances.
5. Identify timeline of attack.
6. Identify compromised data.
7. Assess risk to other systems.
8. Assess risk of re-attack.
9. Apply additional mitigations, make changes to monitoring, etc.
10. Forensic analysis of compromised systems.
11. Internal communication.
12. Involve law enforcement.
13. Reach out to external parties that may have been used as vector for attack.
14. External communication.

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Forensic analysis of compromised systems

Internal communication

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External communication

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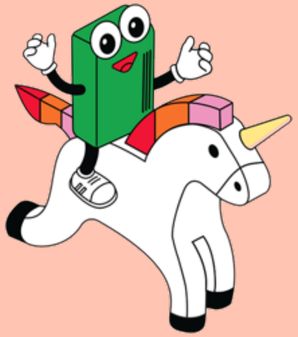

Resources & References

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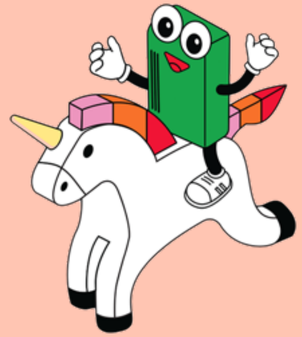

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Questions?

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Developer Advocate

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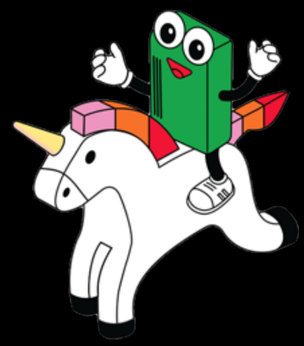
Brand Colors

- PagerDuty Green Hex #06ac38
- Dark Green Hex #005a24
- Clay Hex #94b2a5
- Orange Hex #fa640a
- Peach Hex #ffc5b2
- Yellow Hex #ffe664
- Dark Blue Hex #00607f

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