

Sept 23, 2025

How to SRE Anything.

Using Site Reliability Engineering Principles & Best Practices
to Work Smarter & Live Better

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Site Reliability Engineering

Sept 23, 2025

AGENDA



SRE Principles



Takeaways



SRE at Work



SRE for Life



SRE for Wellbeing



SRE Principles

Drawing an Analogy Between Software Development and \$Anything

	“What”	“How”
Software Development	Product Features	Deploying to production in a reliable way to meet the needs of our users.

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\$TheDomain	\$TheThing	\$MeansToGetThere

Drawing an Analogy Between Software Development and \$Anything

	“What”	“How”
Software Development	Product Features	Deploying to production in a reliable way to meet the needs of our users.
Training Programs 	Training Content	Deploying a consistent and reliable training program that meets the needs of our students.

Drawing an Analogy Between Software Development and \$Anything

	“What”	“How”
Software Development	Product Features	Deploying to production in a reliable way to meet the needs of our users.
Customer Service	Customer Experience	Solving (or better yet, preventing!) issues in a timely manner to keep our customers satisfied.



Satisfaction *not* perfection

- Deploying a consistent and reliable training program that **meets the needs of our students.**
- Solving (or better yet, preventing!) issues in a timely manner to **keep our customers satisfied.**

“

100% is the wrong
reliability target for
basically everything.

Benjamin Treynor Sloss

Vice President of 24x7
Engineering, Google



What is a Service Level Objective?

- Goal for how well the system should operate
- Tracks the customer experience
 - SLOs met =  Customers
 -  Customers = SLOs not met

What is a Service Level Objective?

\$TheThing



- Goal for how well the ~~system~~ should operate
- Tracks the customer experience
 - SLOs met =  Customers
 -  Customers = SLOs not met

SRE is About Balance

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Reliability

Engineering Time

Development Velocity

Cost

SRE is About Balance

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Reliability

~~Engineering~~ Time

~~Development~~ Velocity

Cost

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Is More Effort Always Better?



Is More Effort Always Better? No.



SRE Principle in Practice

- Do just enough to meet the needs of your customers.
- Keep them happy, but not too happy.
- Consider trade-offs and avoid polishing a diamond.

Site Reliability Engineering Patterns

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Users should never notice
an outage before you do.



Engineer solutions to
eliminate classes of
errors rather than being
satisfied with point fixes.



Don't feed the machines
with human toil.



Failure is an opportunity
to improve, not to
brandish pitchforks.

Site Reliability Engineering Patterns Applied to Anything



Users should never notice
an ~~outage~~ before you do.



a problem



Engineer solutions to
eliminate classes of
errors rather than being
satisfied with point fixes.

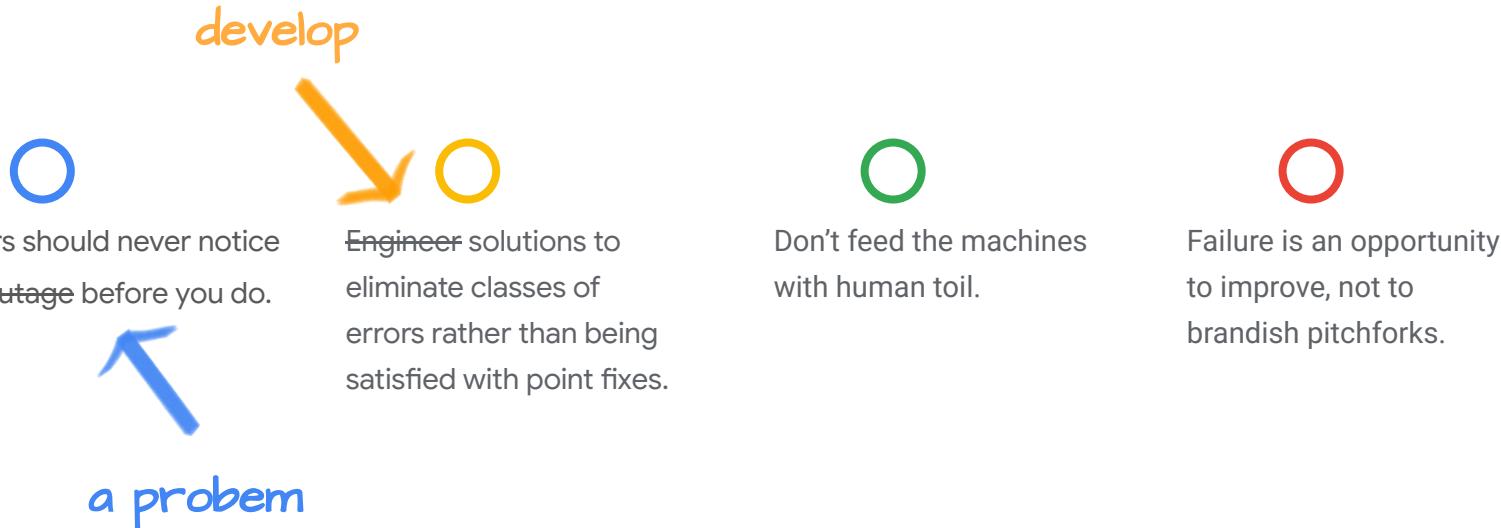


Don't feed the machines
with human toil.



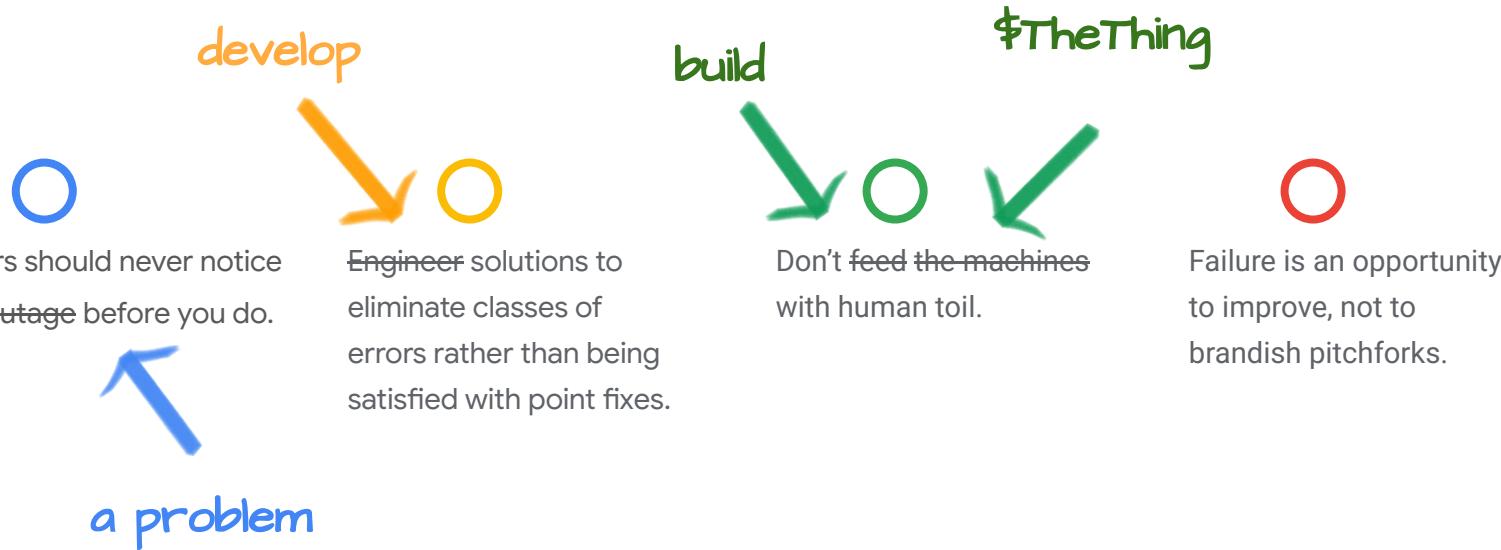
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Site Reliability Engineering Patterns Applied to Anything



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Site Reliability Engineering Patterns Applied to Anything



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Principles to SRE \$Anything

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Users should never notice
a problem before you do.



Develop solutions to
eliminate classes of
errors rather than being
satisfied with point fixes.



Don't build \$TheThing
with human toil.



Failure is an opportunity
to improve, not to
brandish pitchforks.

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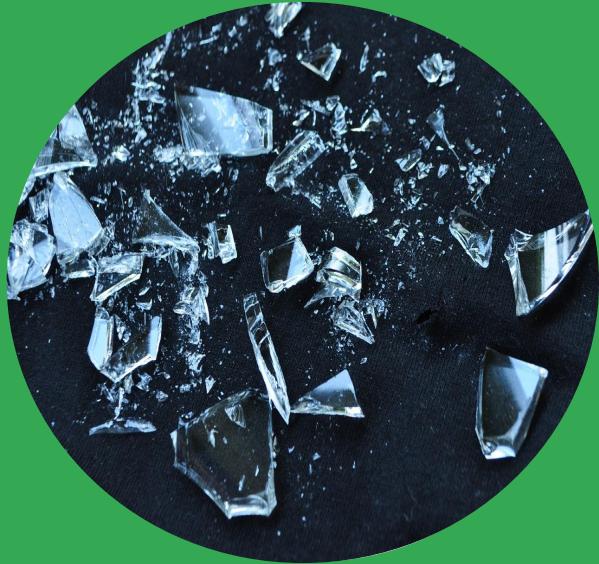
Why Blamelessness Matters.

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*If something
breaks*

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when something
breaks

Pixabay license: Free for commercial use, no attribution required.<https://pixabay.com/photos/glass-broken-shattered-broken-glass-1818065/>

“

I'm extremely angry right now. People should lose their jobs if this was an error.

--Hawaii State Representative Matt Lopresti
(in reference to the 2018 Hawaii nuclear alert false alarm)

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The Case for Blamelessness

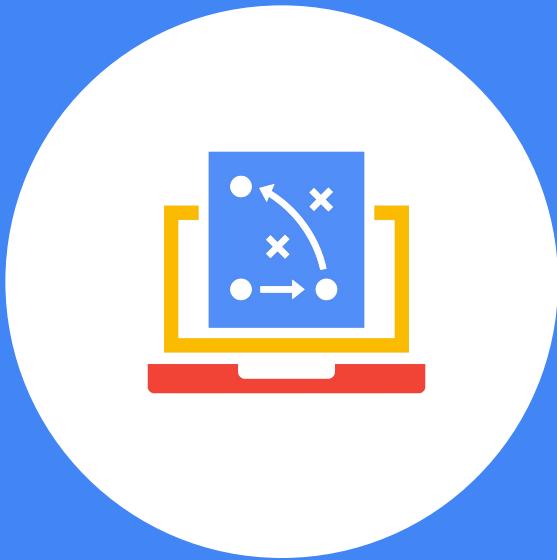
- Failure happens. There is no way around it.
- Embrace failure to improve time to detect and resolve issues.
- Proactively addressing failure → more robust \$Things.



**Failure is an
opportunity to
improve
(not to brandish pitchforks)**

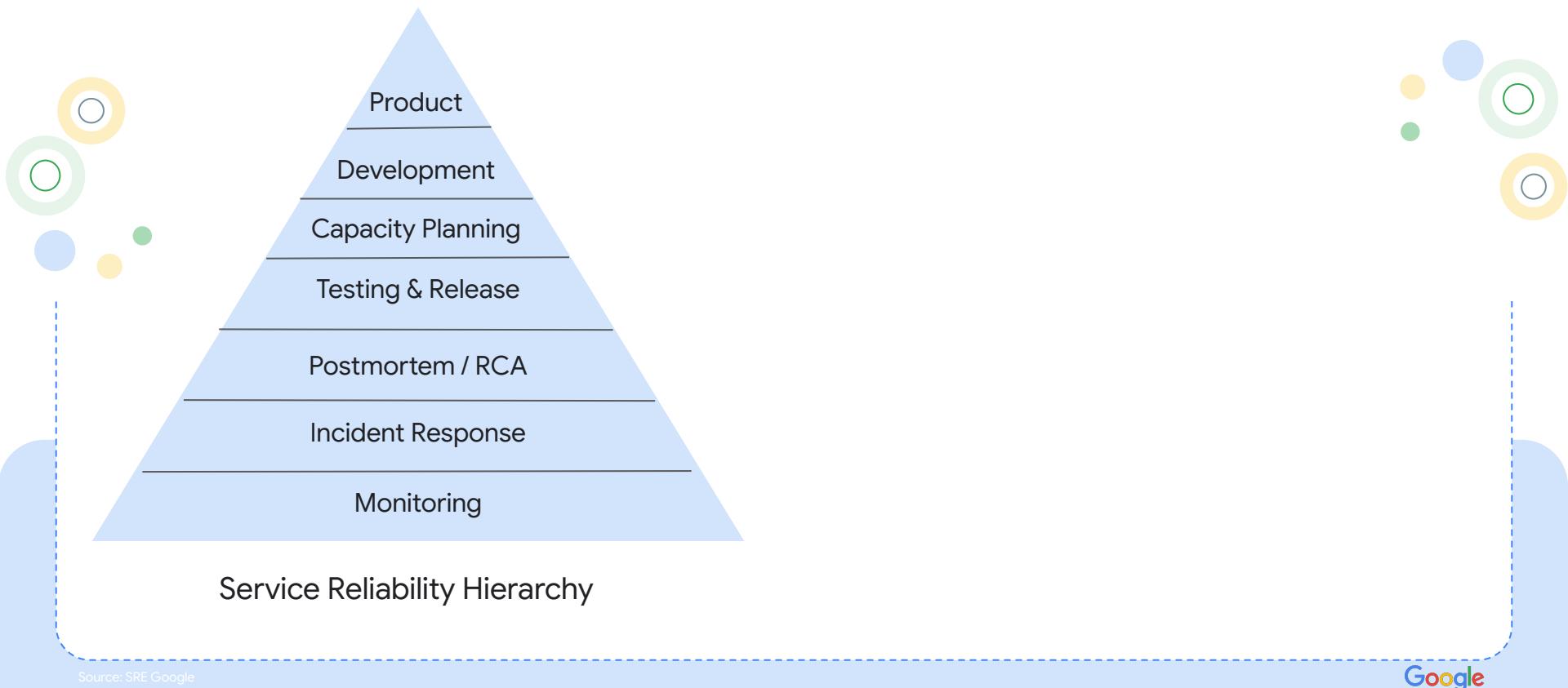
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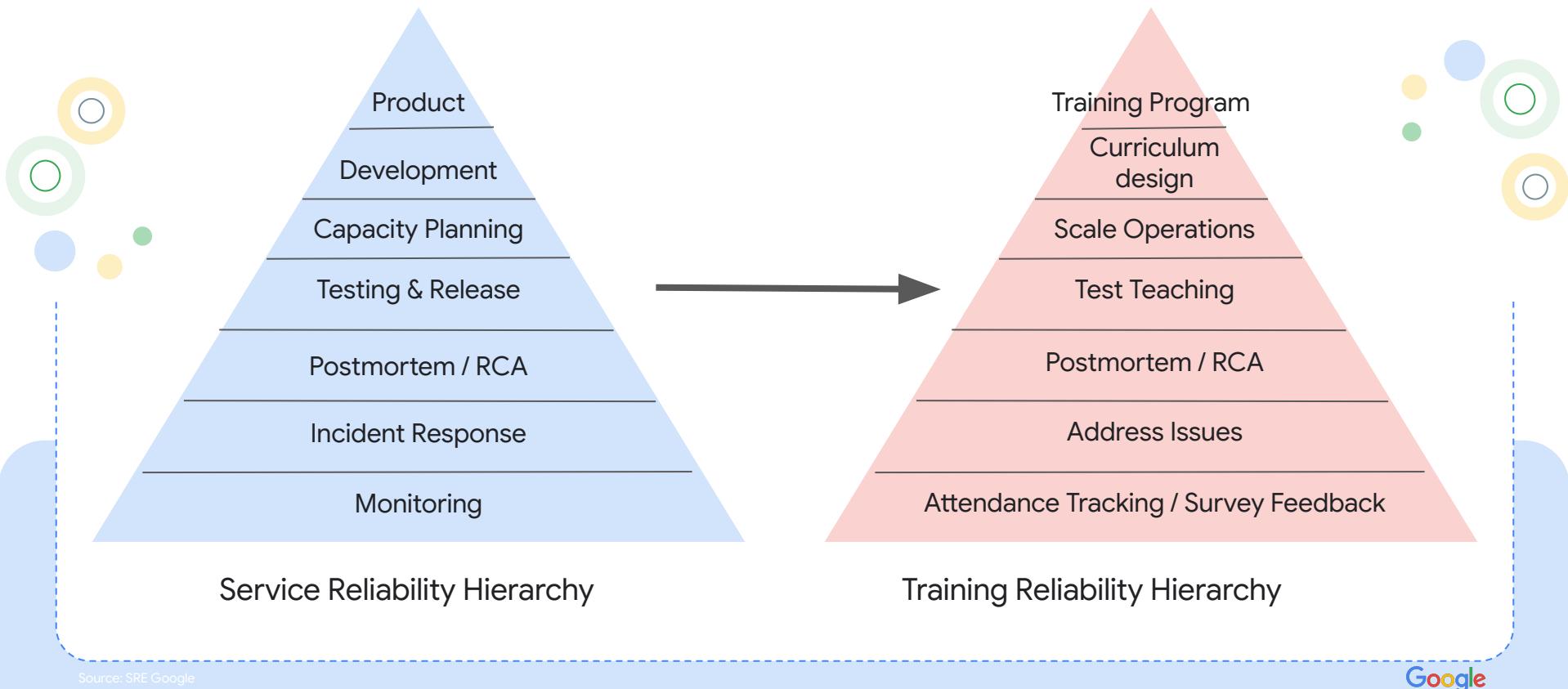
SRE at Work

How to Apply SRE Principles to Anything



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How to Apply SRE Principles to Training Programs



What Does Our Monitoring Tell Us?

Also more prepared, hands-on "Hello world" demonstrations and in-class labs allowing use of the aforementioned paths would be welcome (kinesthetic).

More time doing hands-on work and deeper exploration of how {redacted} were run by SRE teams would be nice.

Some more hands-on activities would have been good.

I disliked the "wall of lecture" in some classes, meaning 1.5 or 2 hours of listening with little/no hands-on exercise.



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Google SRE EDU Orientation v2

- 01 Move away from passive listening
- 02 Troubleshoot a real system, built for this purpose
- 03 Facilitator backs off more and more
- 04 Groups of three students, least experienced in the middle, driving
- 05 Instill confidence



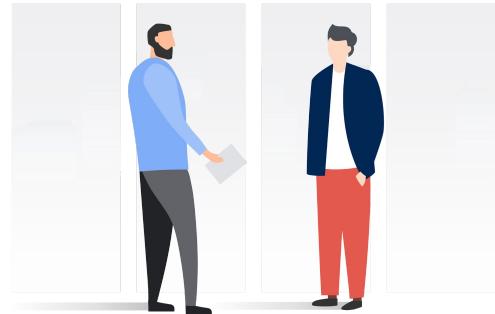
What Does Our Monitoring Tell Us Now?

I went in feeling quite apprehensive & came out feeling like I at least know which way I'm pointed. **Thoroughly enjoyed the breakage activities** and learning about how Google's infra, monitoring and processes fit together.

Delving into real breaking scenarios was super valuable - I would love more of these (1 per day would be amazing).

The **breakage scenarios in SRE EDU** were awesome.

It was the funnest week I've had this year. Overall, it made me feel **more connected to production** and the technology, which made me really happy.



What Does Our Monitoring Tell Us Now?

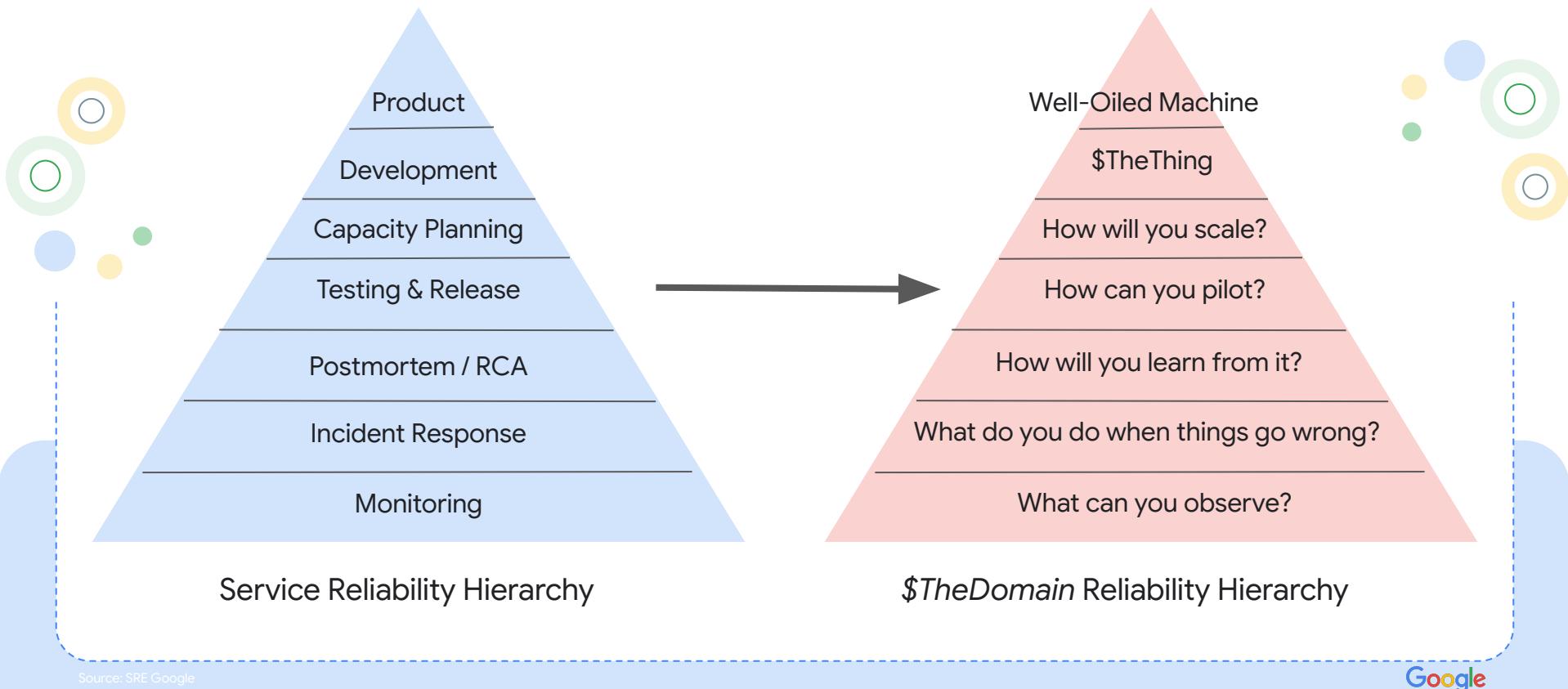
Concrete behaviors demonstrated

- Use a system diagram.
- Diagnose issues using SRE tools.
- Annotate an outage.
- Mitigate a realistic production issue.
- Find root causes & propose solutions.

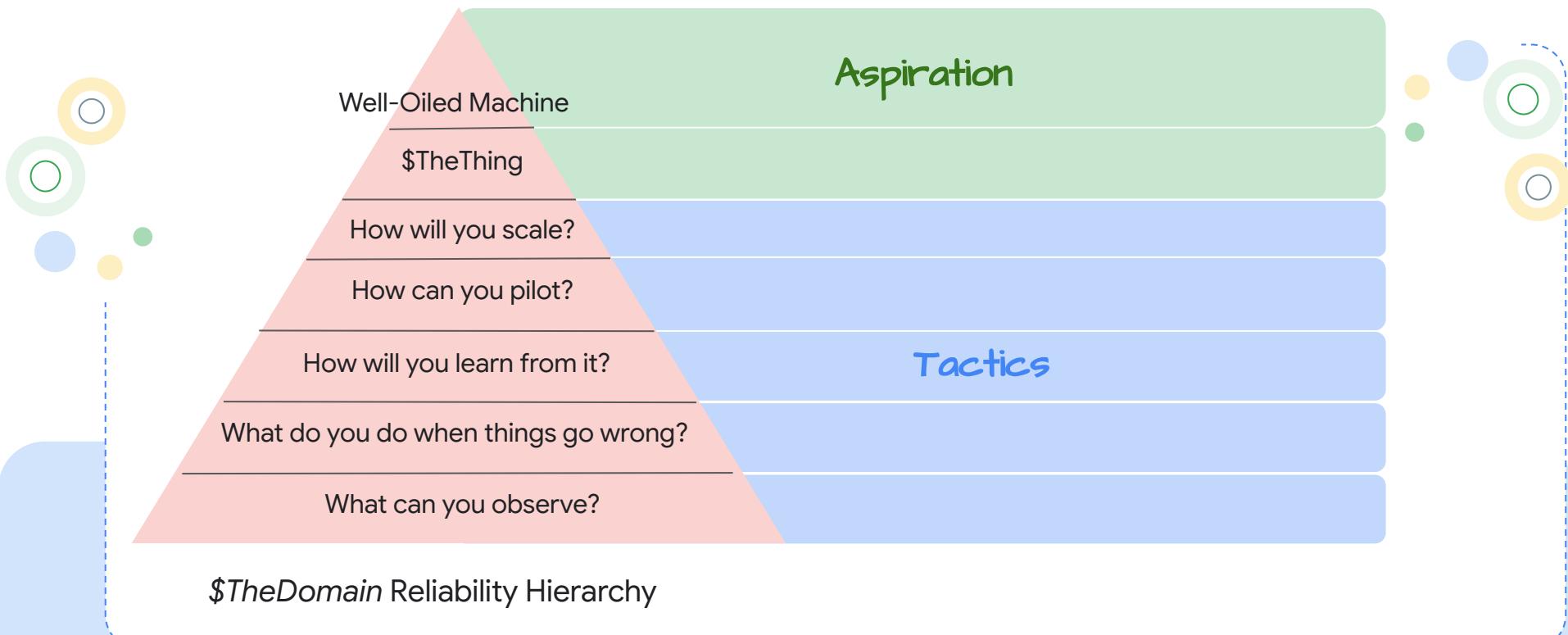


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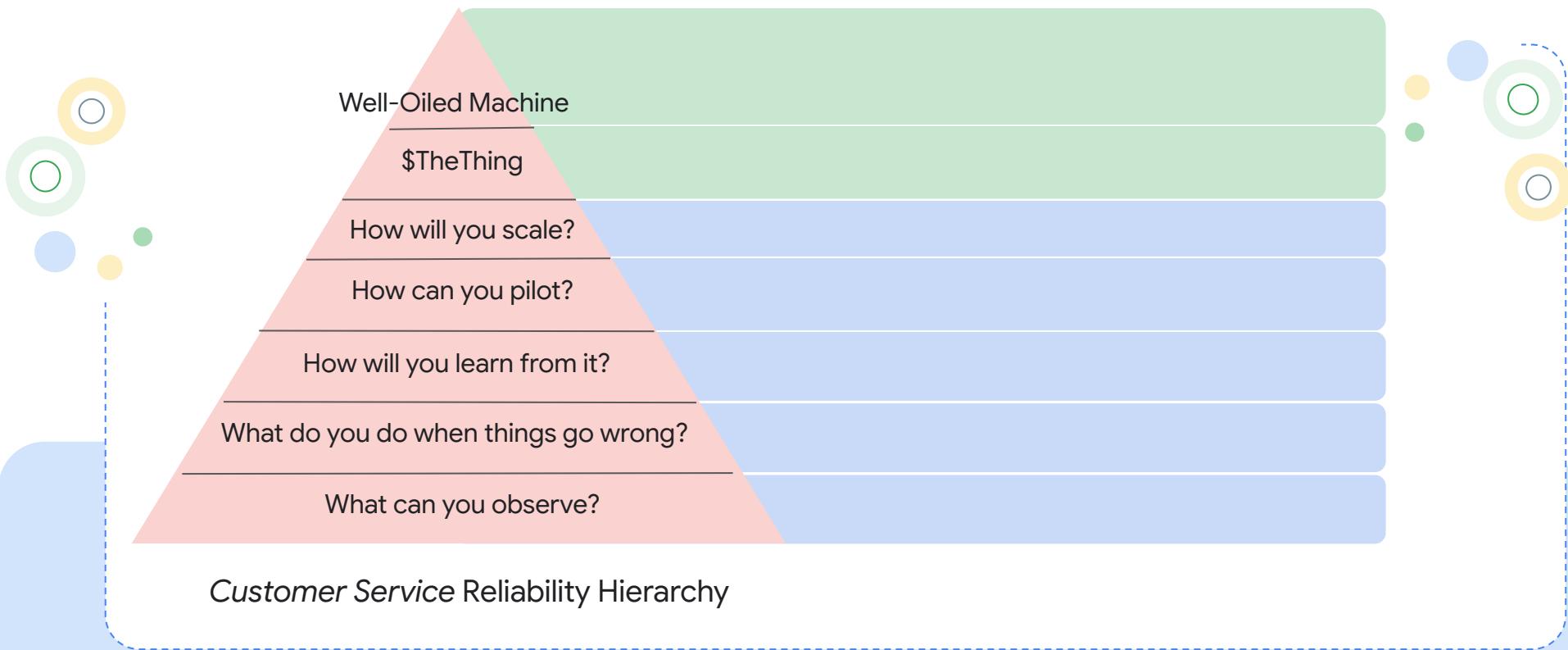
How to Apply SRE Principles to \$Domain



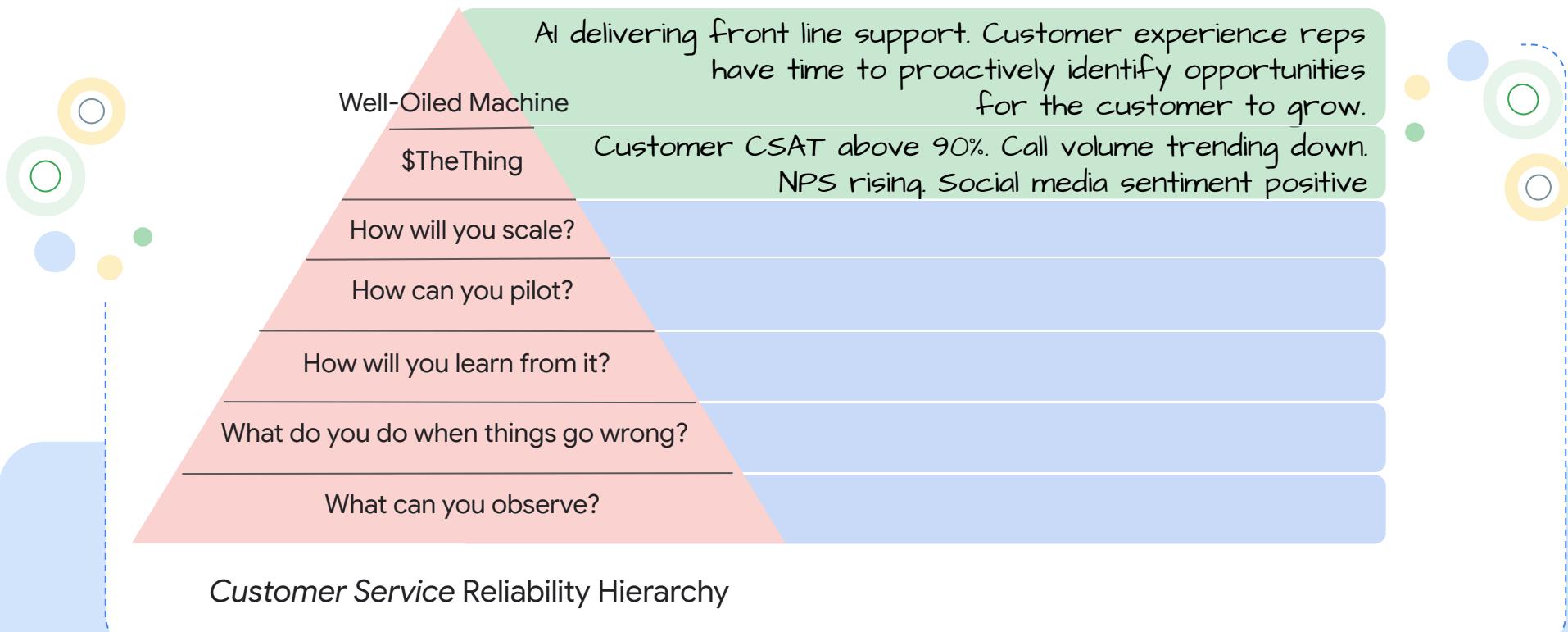
How to Apply SRE Principles to \$TheDomain



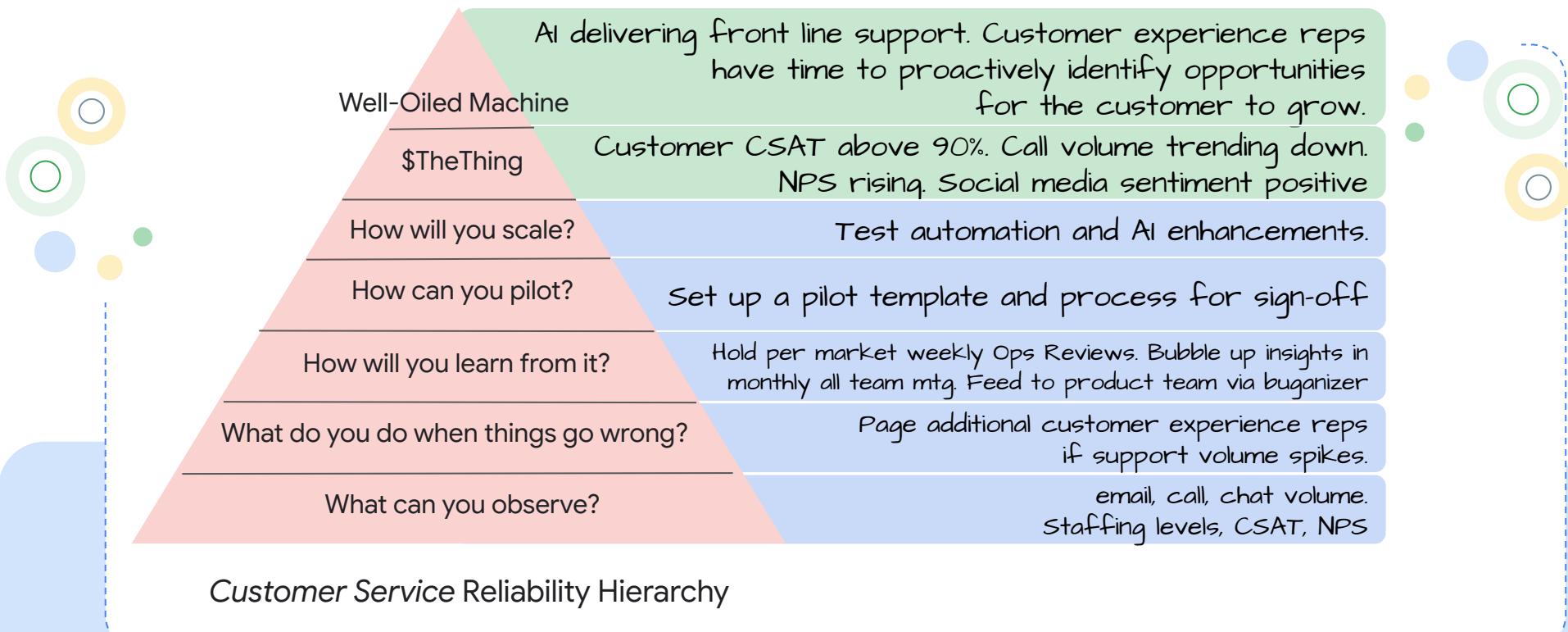
How to Apply SRE Principles to Customer Service



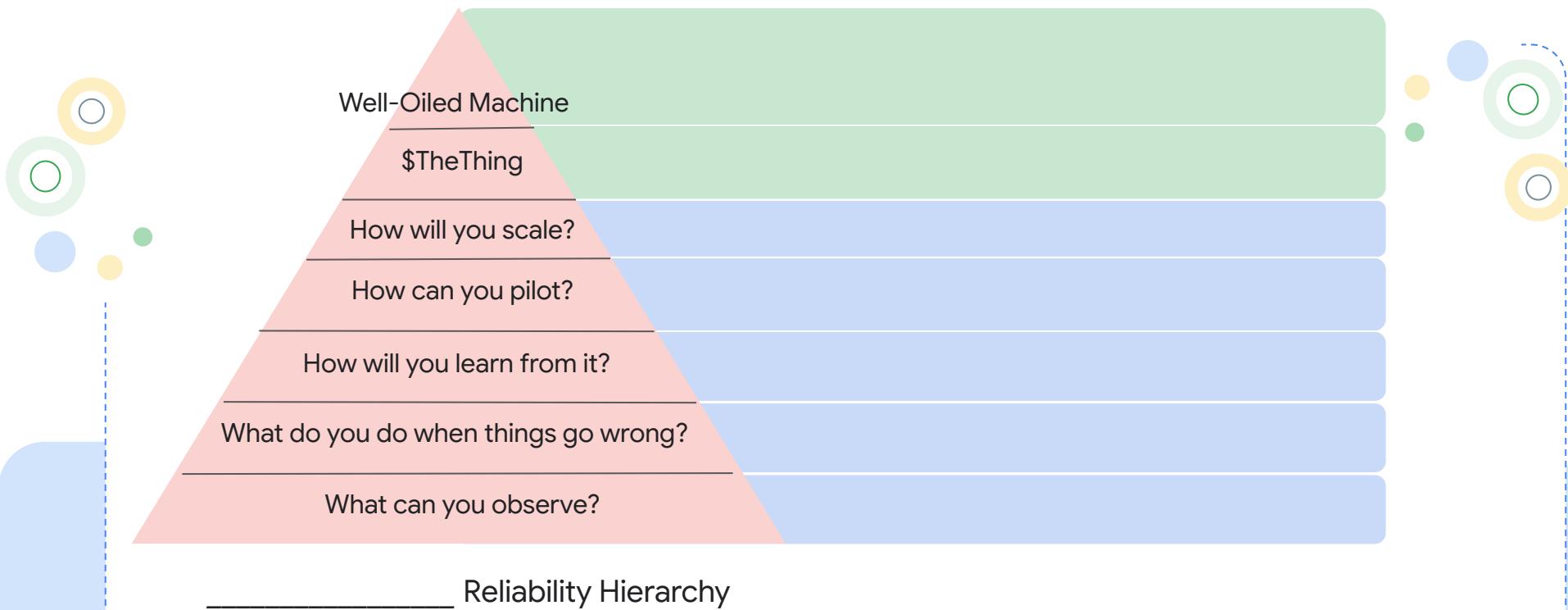
How to Apply SRE Principles to Customer Service



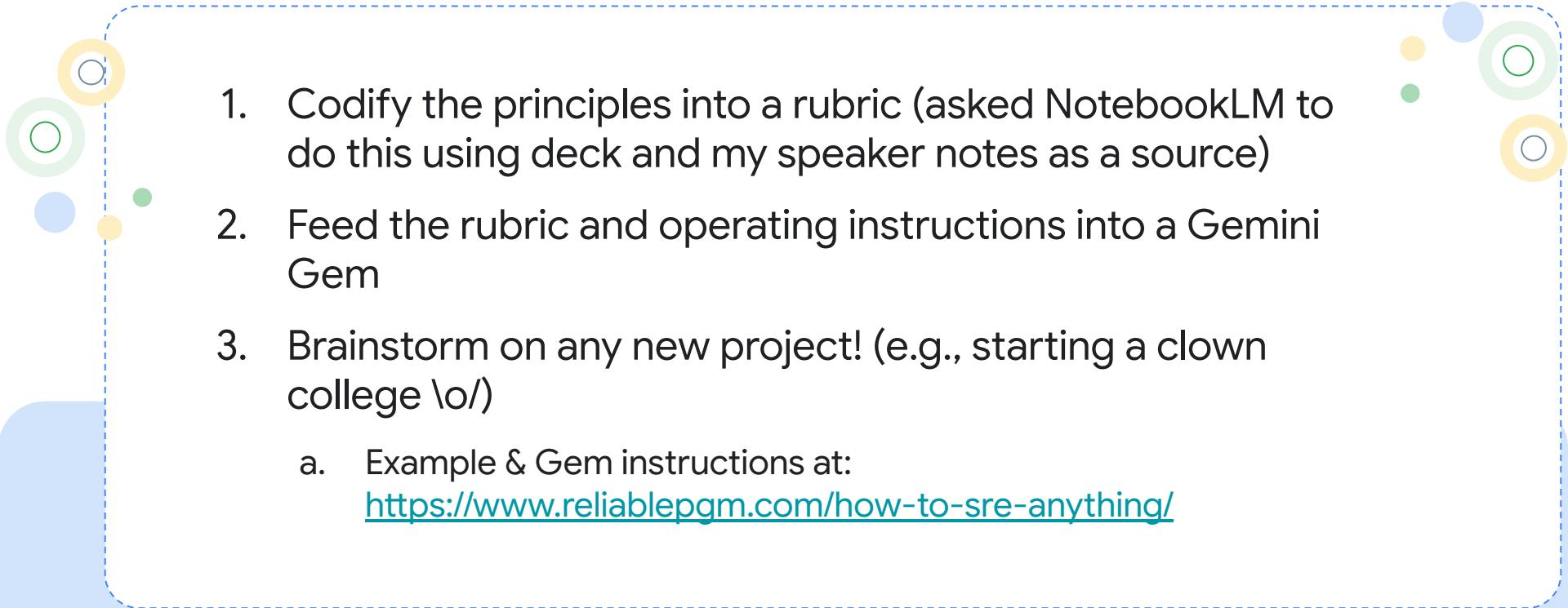
How to Apply SRE Principles to Customer Service



How to Apply SRE Principles to _____



Learn and Brainstorm with AI

- 
1. Codify the principles into a rubric (asked NotebookLM to do this using deck and my speaker notes as a source)
 2. Feed the rubric and operating instructions into a Gemini Gem
 3. Brainstorm on any new project! (e.g., starting a clown college \o/)
 - a. Example & Gem instructions at:
<https://www.reliablepgm.com/how-to-sre-anything/>

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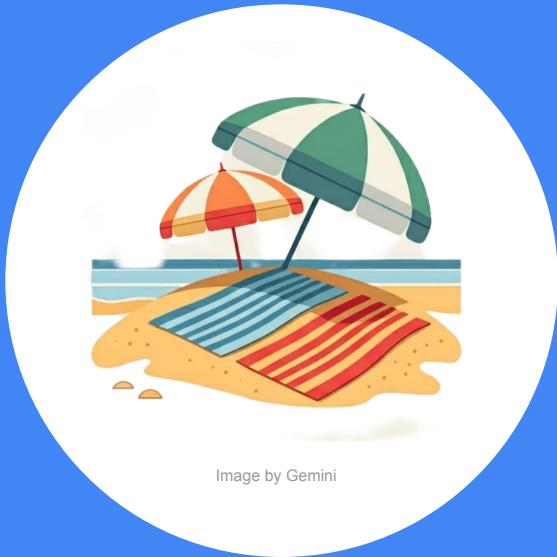


Image by Gemini

SRE for Life

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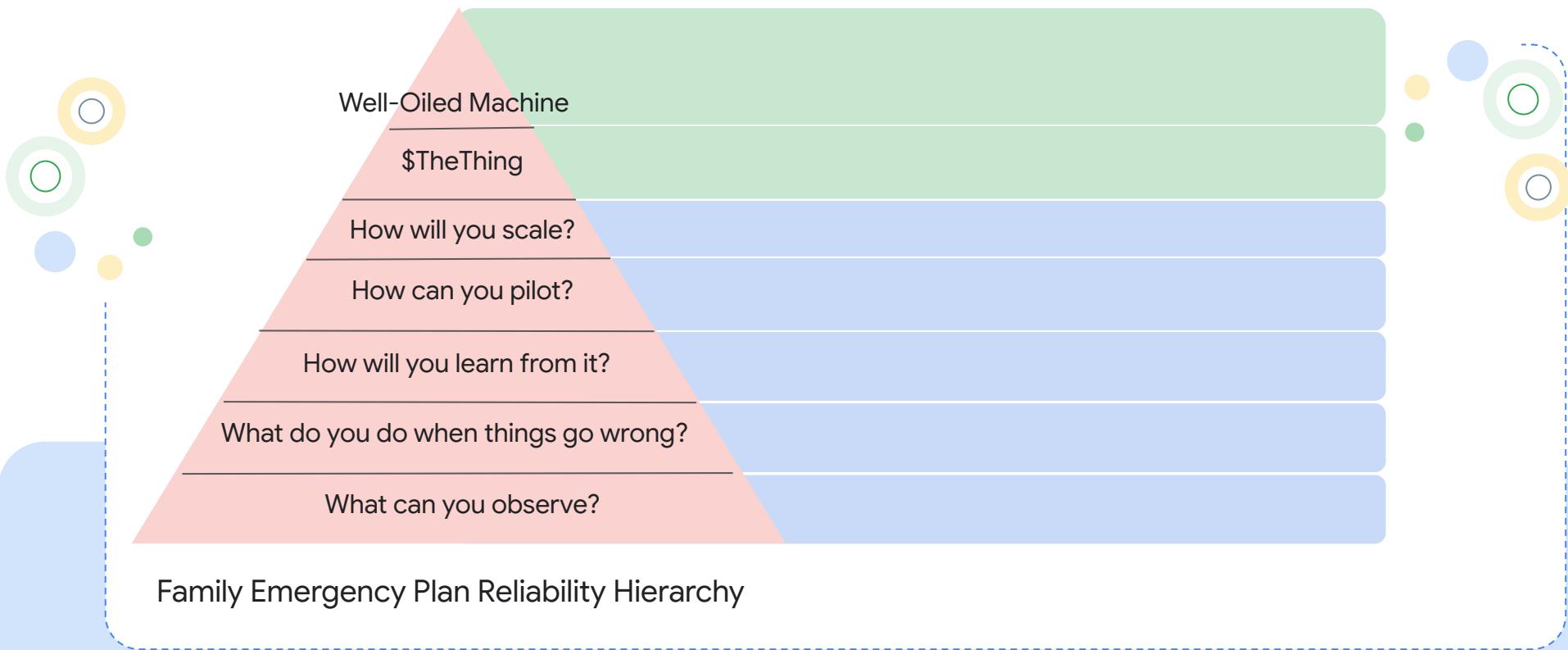
SRE Principles Applied to a Medical Emergency

<https://www.linkedin.com/pulse/site-reliability-engineering-best-practices-applied-medical-petoff/>

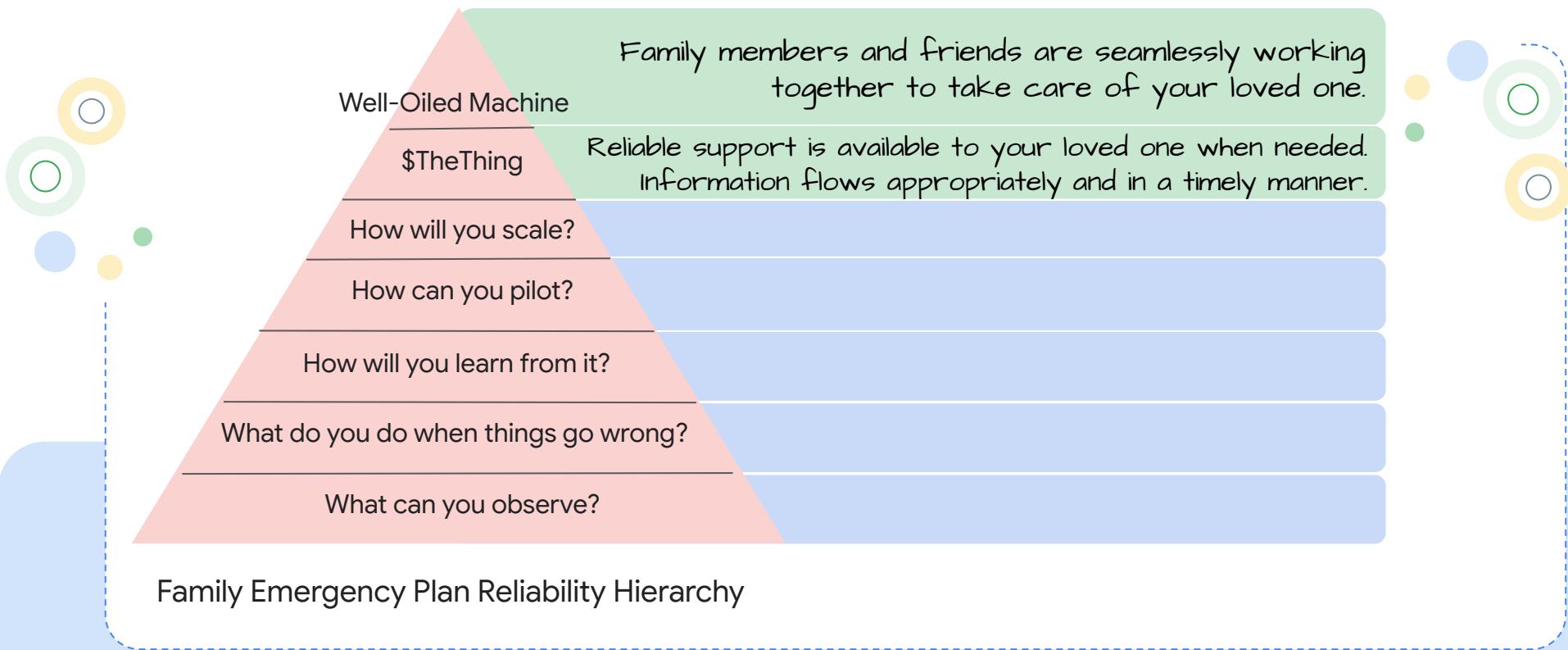


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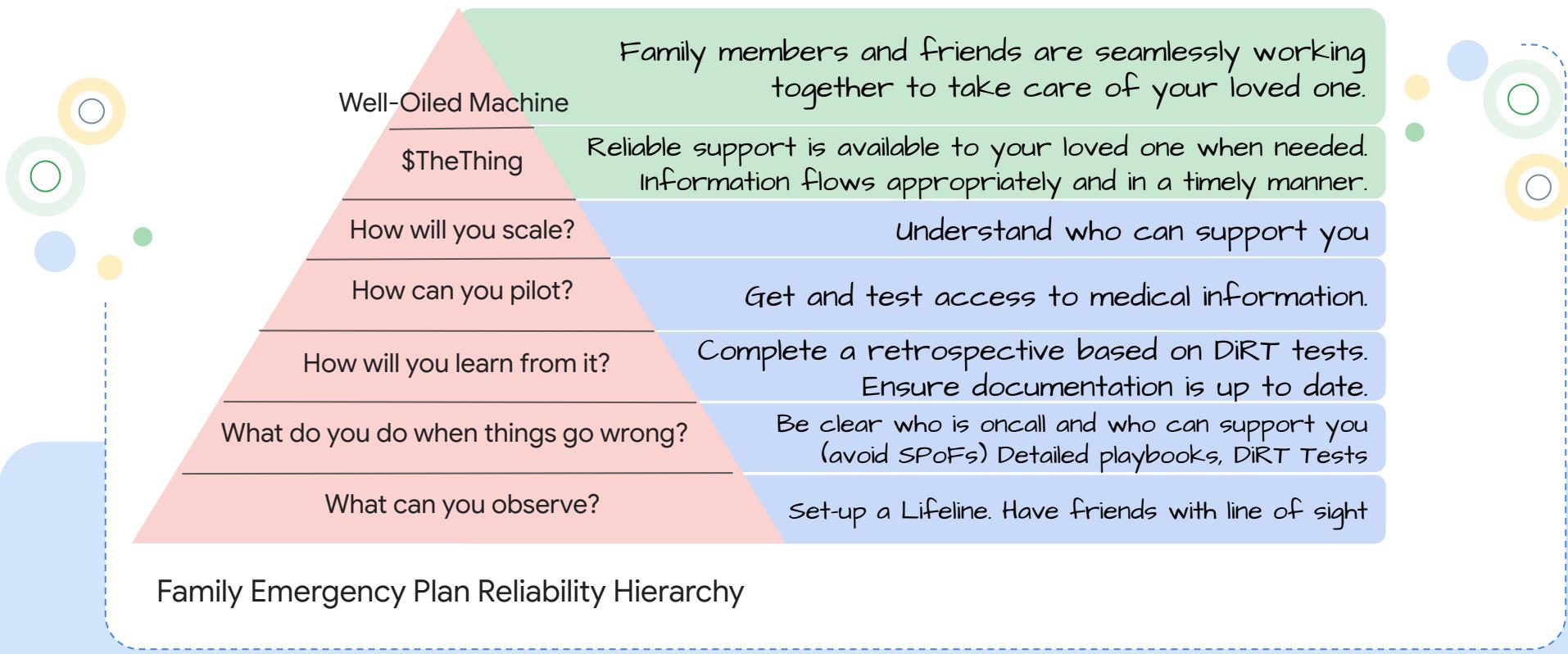
How to Apply SRE Principles to a Family Emergency Plan



How to Apply SRE Principles to a Family Emergency Plan



How to Apply SRE Principles to a Family Emergency Plan



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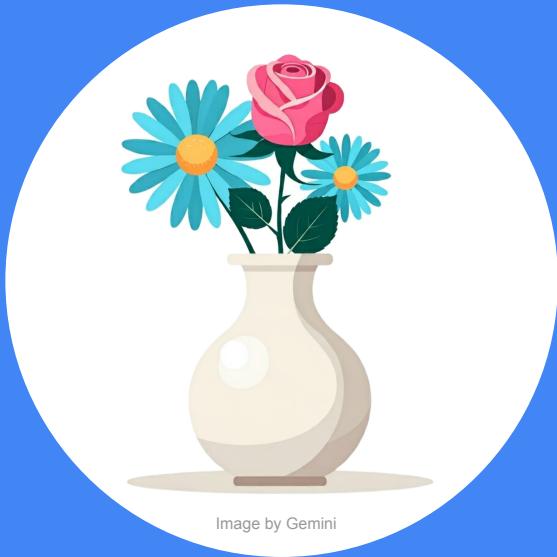


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SRE for Wellbeing

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**SRE principles are
great life hacks!**





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Capacity Planning

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Load Shedding



How to SRE Anything.

Takeaways

Key Takeaways

- ▶ The “What” and the “How” are equally important
- ▶ $\$TheDomain + \$TheThing + \$MeansToGetThere$ is a winning combination that unlocks the ability to SRE Anything
- ▶ The Service Reliability Hierarchy is a useful rubric for *applying* SRE principles to any situation...
- ▶ ...in work, in life, and for well-being.

Where I need help

- ▶ Share your stories of how you've applied SRE principles in non-traditional ways. I'd love to hear more examples to test the rubric. Try out my AI Assisted process:

<https://www.reliablepgm.com/how-to-sre-anything/>

- ▶ We are working on a 2nd edition of the Site Reliability Engineering Book (for publication to coincide with the 10th anniversary of the original) 🎉

What topics do you think are important to include?

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Jennifer Petoff

Director, SRE Program Management,
Education Programs



▶ Let's Connect!

▶ Links to Learn More

sre.google

reliablepgm.com

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Thank you