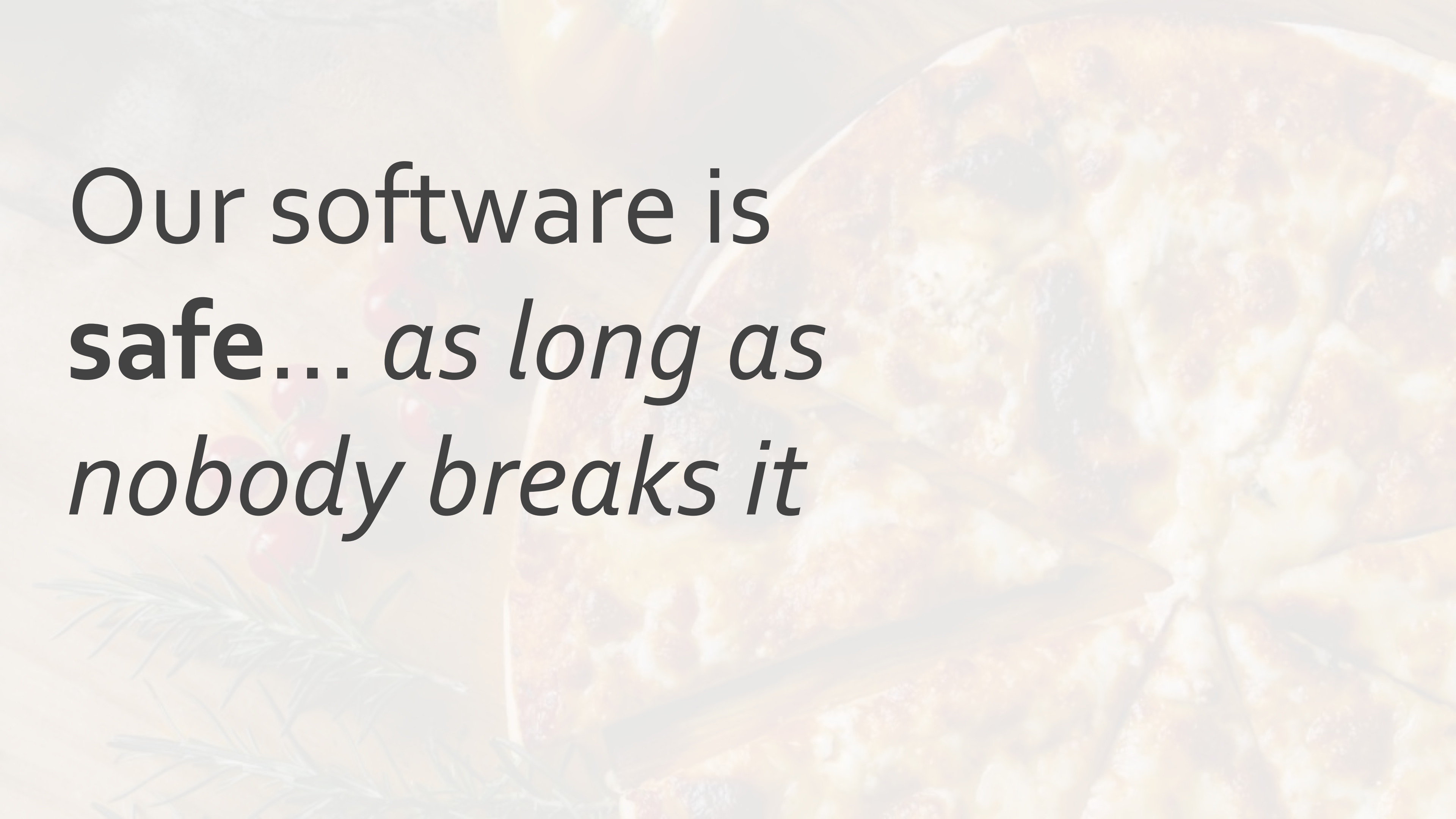
Spring Security basics

Sprinkle of Security (and Spring)

A **passionate**
and **enthusiastic**
web
software developer

Help **wanted**
and
greatly
appreciated



Our software is **safe**… *as long as nobody breaks it*

Even if people like **Andres Freund** exist

https://www.youtube.com/watch?v=FpT_cYUaxkU

https://xkcd.com/2347/

Where to start?

Meet our new friend

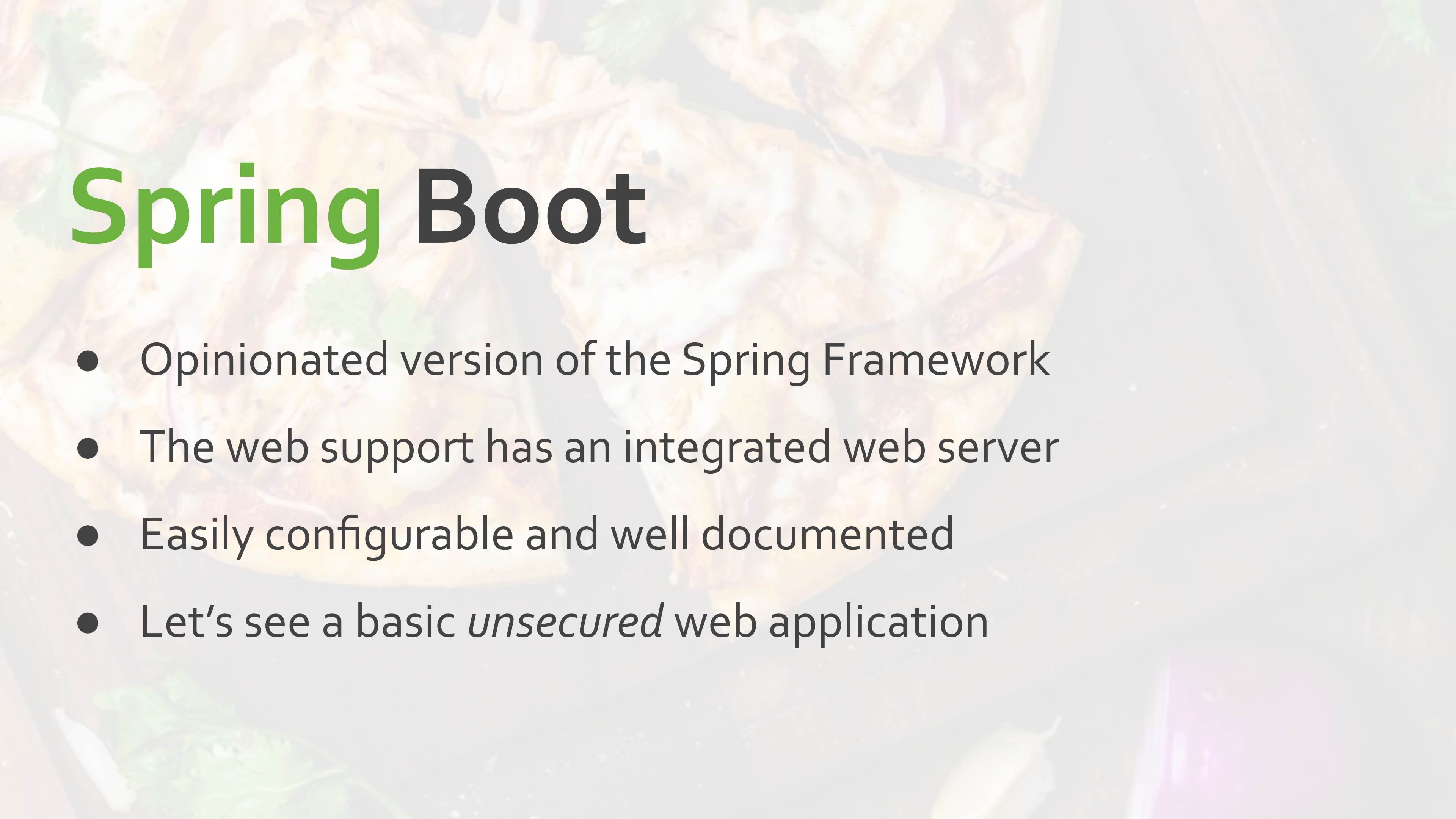
OWASP

https://www.owasp.org

Where to continue?

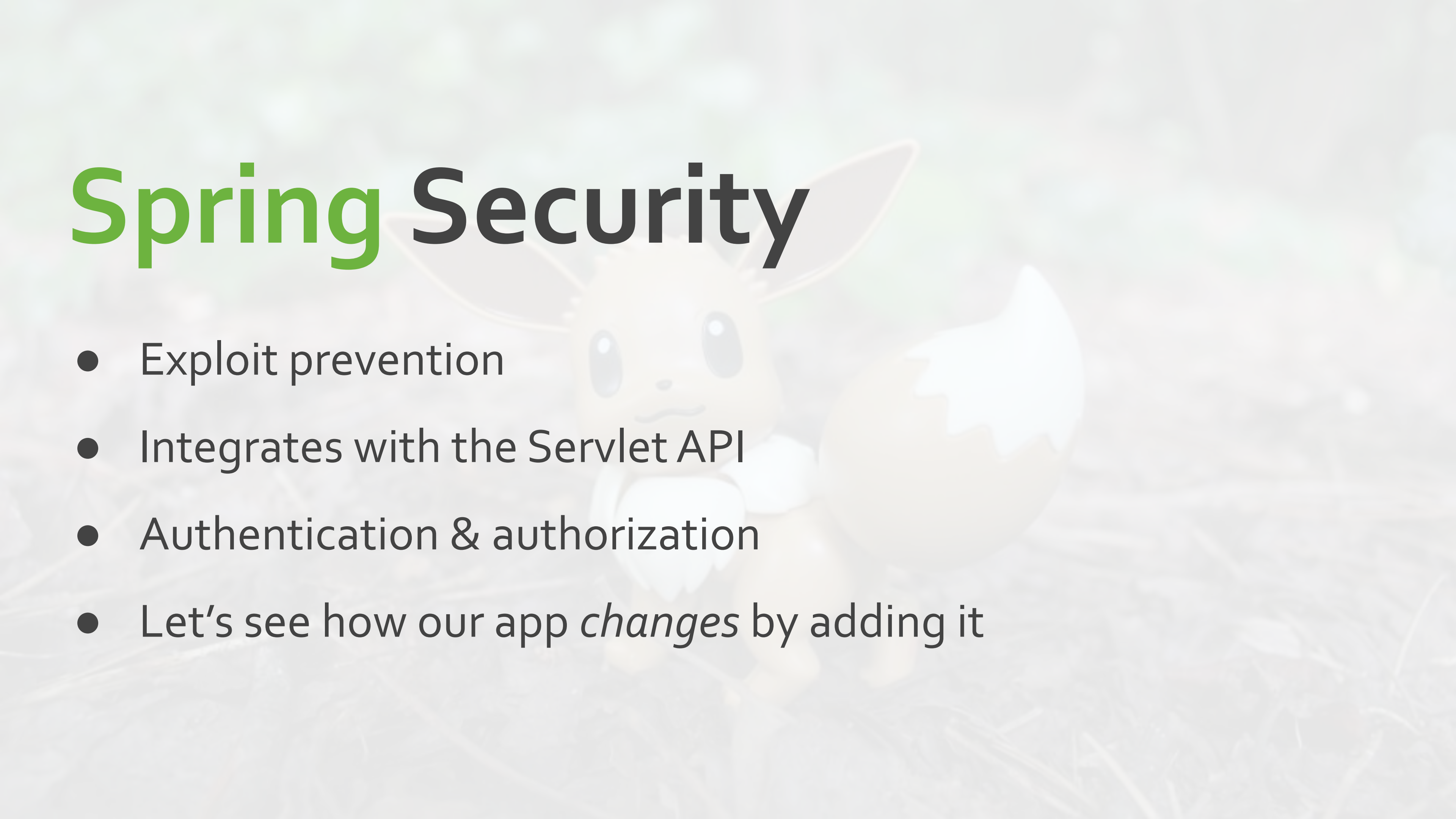
Meet our new friends

Let’s Encrypt, Snyk, SecurityHeaders



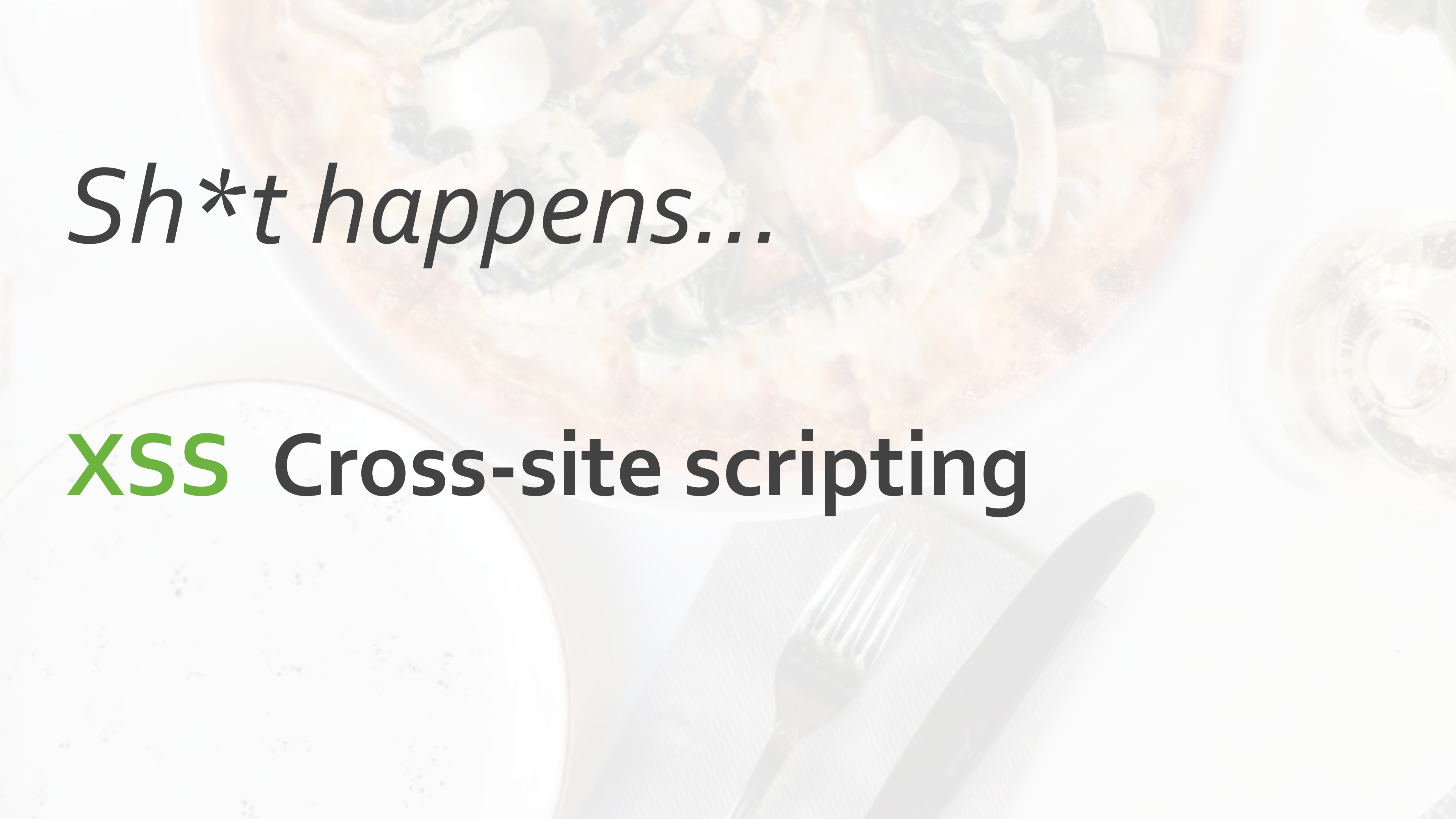
Spring Boot

- Opinionated version of the Spring Framework
- The web support has an integrated web server
- Easily configurable and well documented
- Let's see a basic *unsecured* web application



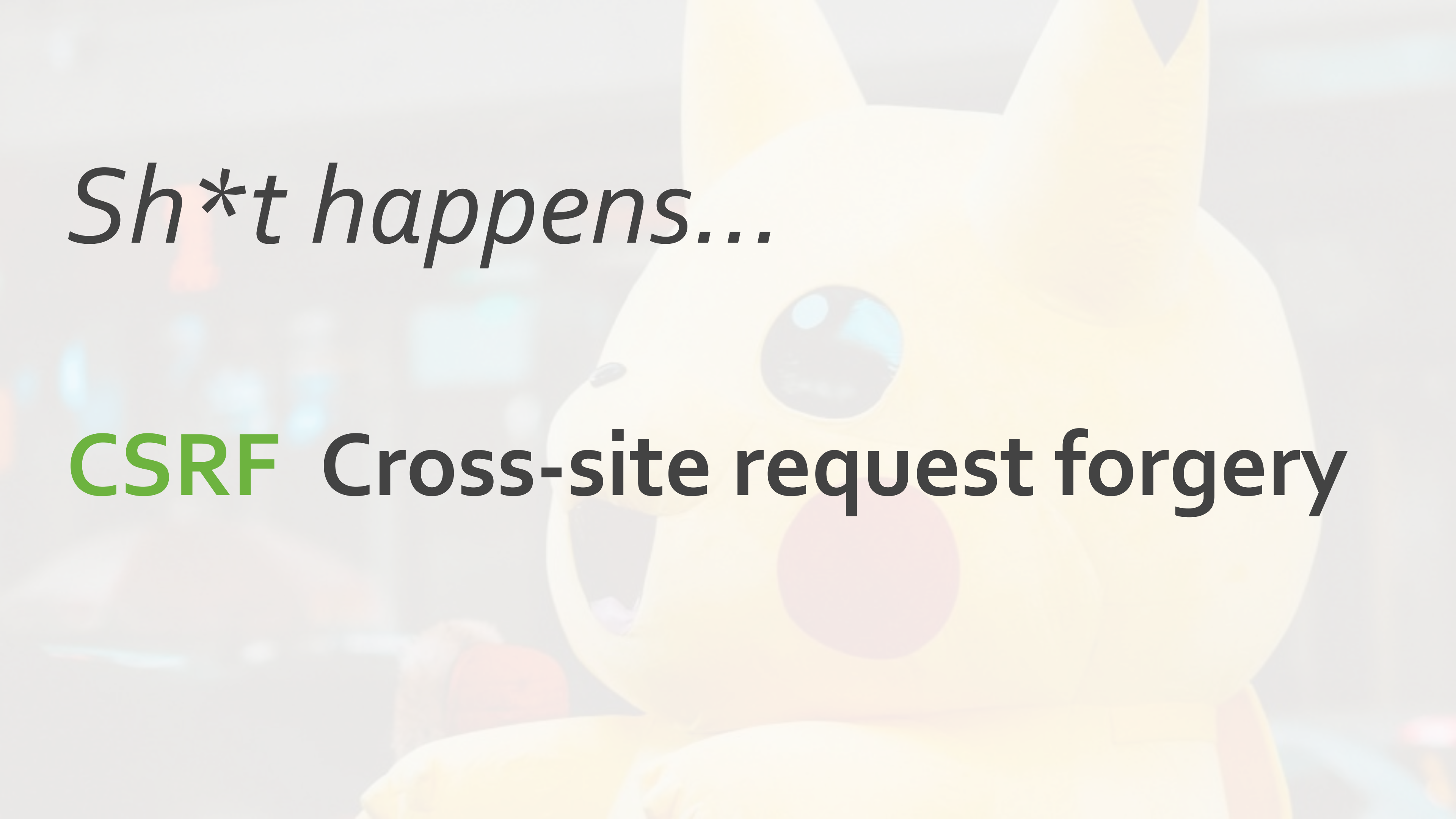
Spring Security

- Exploit prevention
- Integrates with the Servlet API
- Authentication & authorization
- Let’s see how our app *changes* by adding it



*Sh*t happens…*

XSS Cross-site scripting

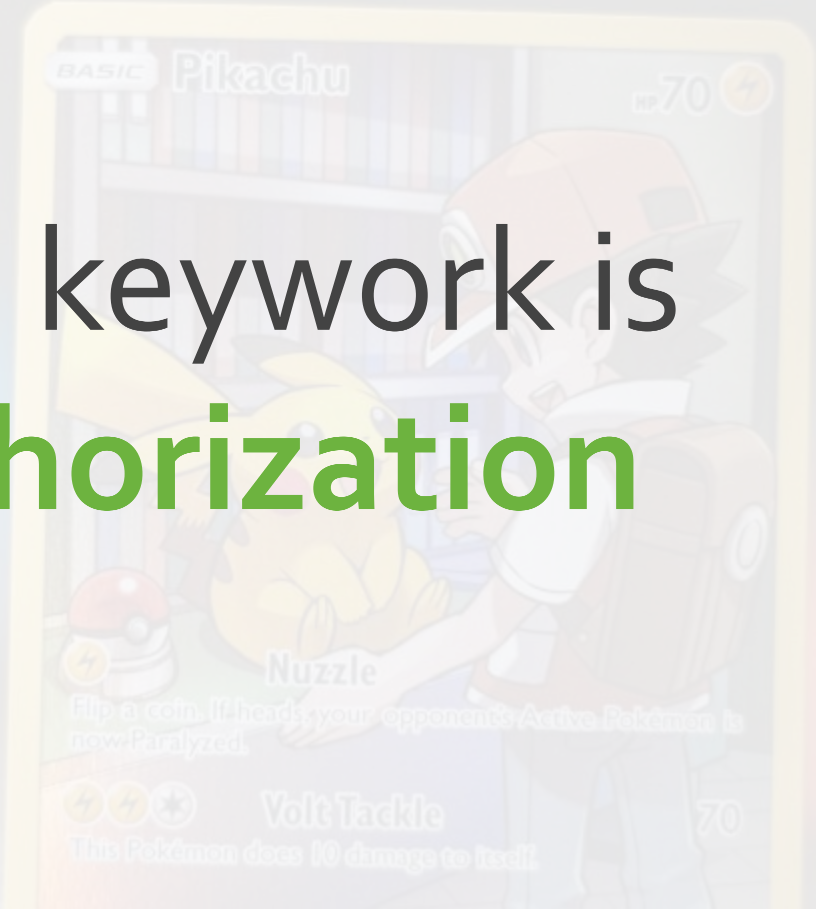


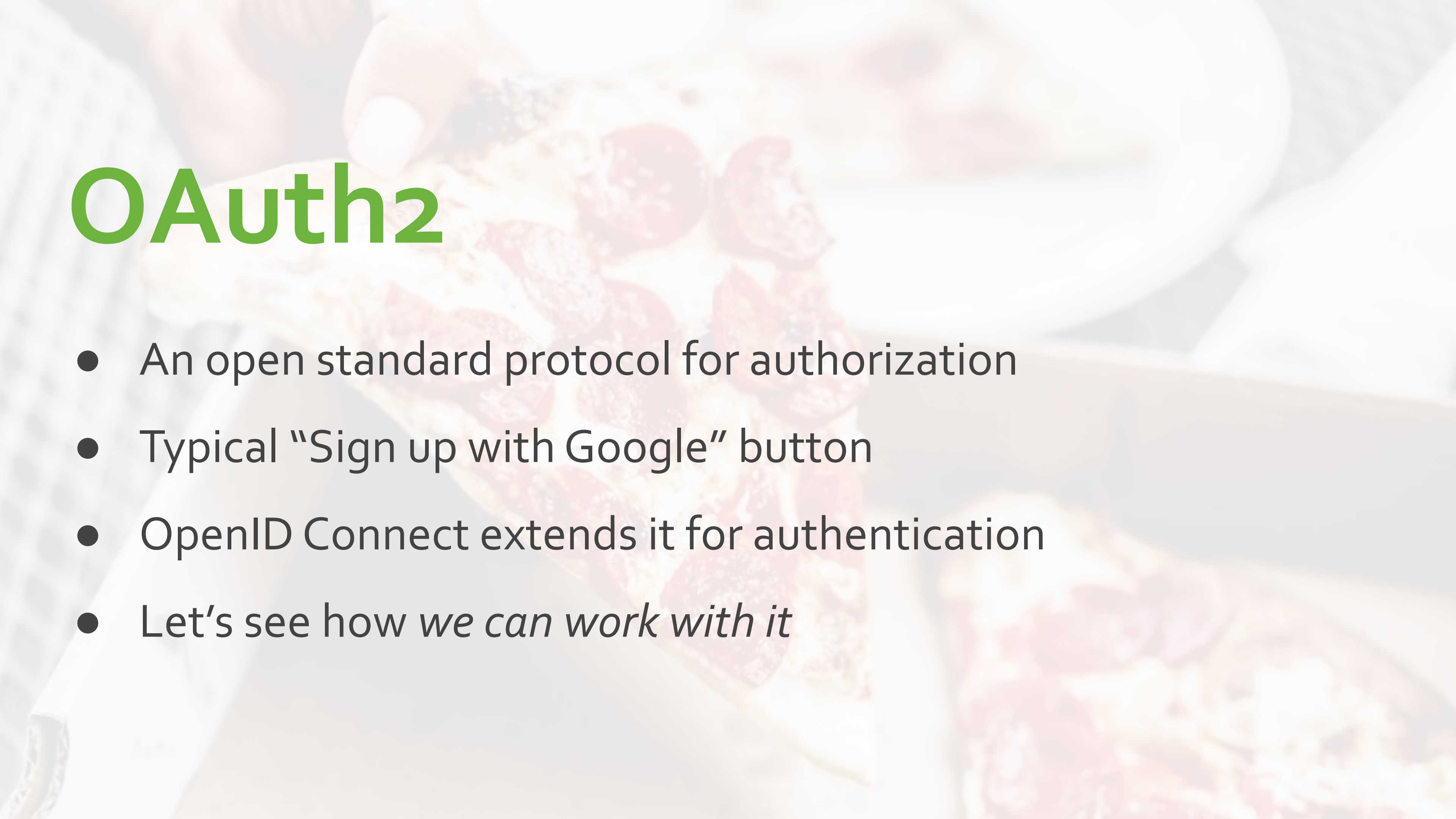
*Sh*t happens…*

CSRF Cross-site request forgery

The keywork is
authentication

The keywork is **authorization**


BASIC
Pikachu
HP 70
Nuzzle
Flip a coin. If heads, your opponent's Active Pokémon is now Paralyzed.
Volt Tackle
70
This Pokémon does 10 damage to itself.



OAuth2

- An open standard protocol for authorization
- Typical “Sign up with Google” button
- OpenID Connect extends it for authentication
- Let’s see how *we can work with it*

JWT JSON Web Token

- A web standard
- Supports many signature algorithms
- Some claims are registered (sub, iss, exp, ...), some are not
- DO NOT PUT SENSITIVE INFORMATION IN IT

That’s a lot!

Key takeaways:

think **about security**

don’t reinvent **security**

Thank you!

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https://github.com/LBLucaBonetti/Spring-Security-basics

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