Spring Security: Authentication / Authorization - Building Effective Layers of Defense

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Why Security Is Important

Players

Hackers

Competitors

Foreign Governments

Impact

Financial

Reputational

Legal / Regulatory

DevOps: Security is now everyone's responsibility.....

Why Spring Security?

Spring Security

Authentication and authorization for enterprise applications

Application layer security for Java, J2EE

Highly customizable

Protects against common security threats

Spring Security

Browser

Resource

Name: John, Smith
Address: 1 Red Road,
London, UK
Religion: [redacted]
Bank Acc: [redacted]

Data

Spring Security Website

https://spring.io/projects/spring-security

Benefits of a Layered Security Approach

“Defense in depth (also known as Castle Approach) is that layered security mechanisms increase security of the system as a whole. If an attack causes one security mechanism to fail, other mechanisms may still provide the necessary security to protect the system”
OWASP

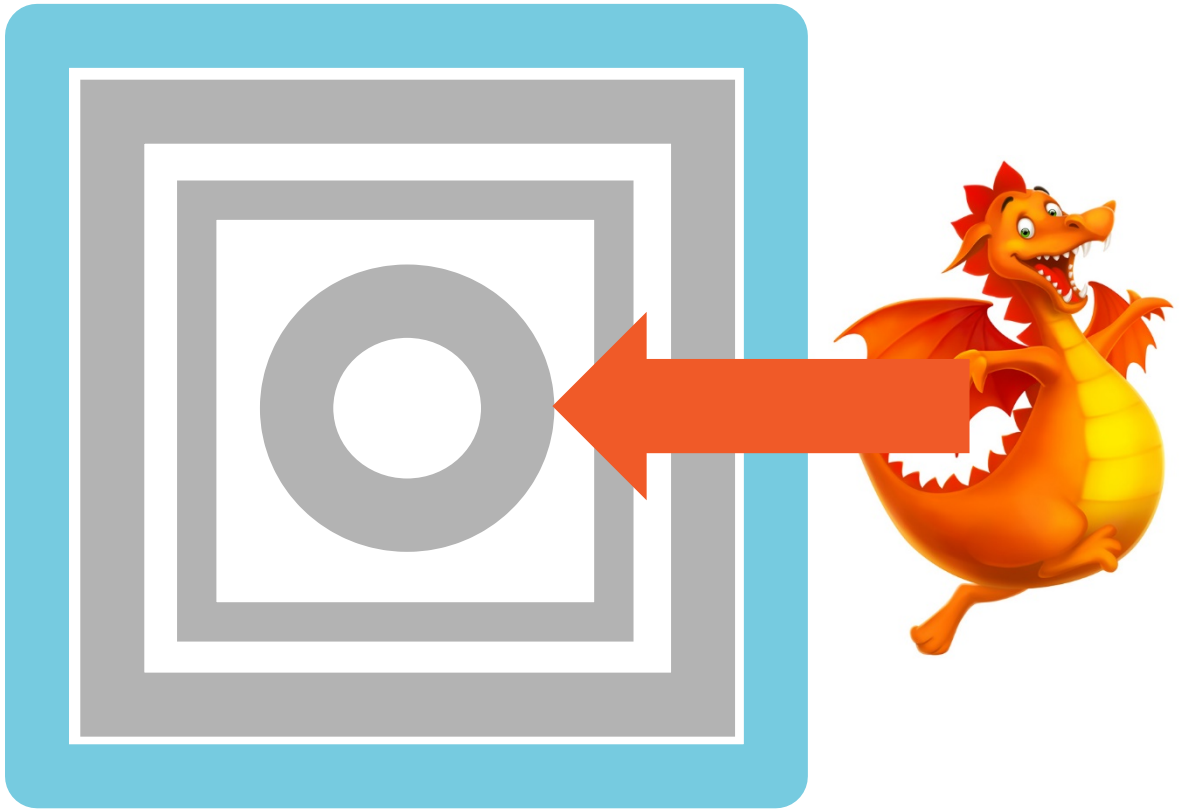
Outer wall

Moat

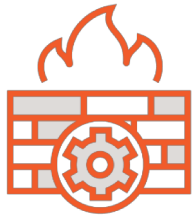
Inner wall

Keep

Towers



Modern Application Security Layers



Firewall

Login

Security questions

Two-factor authentication

Authorization

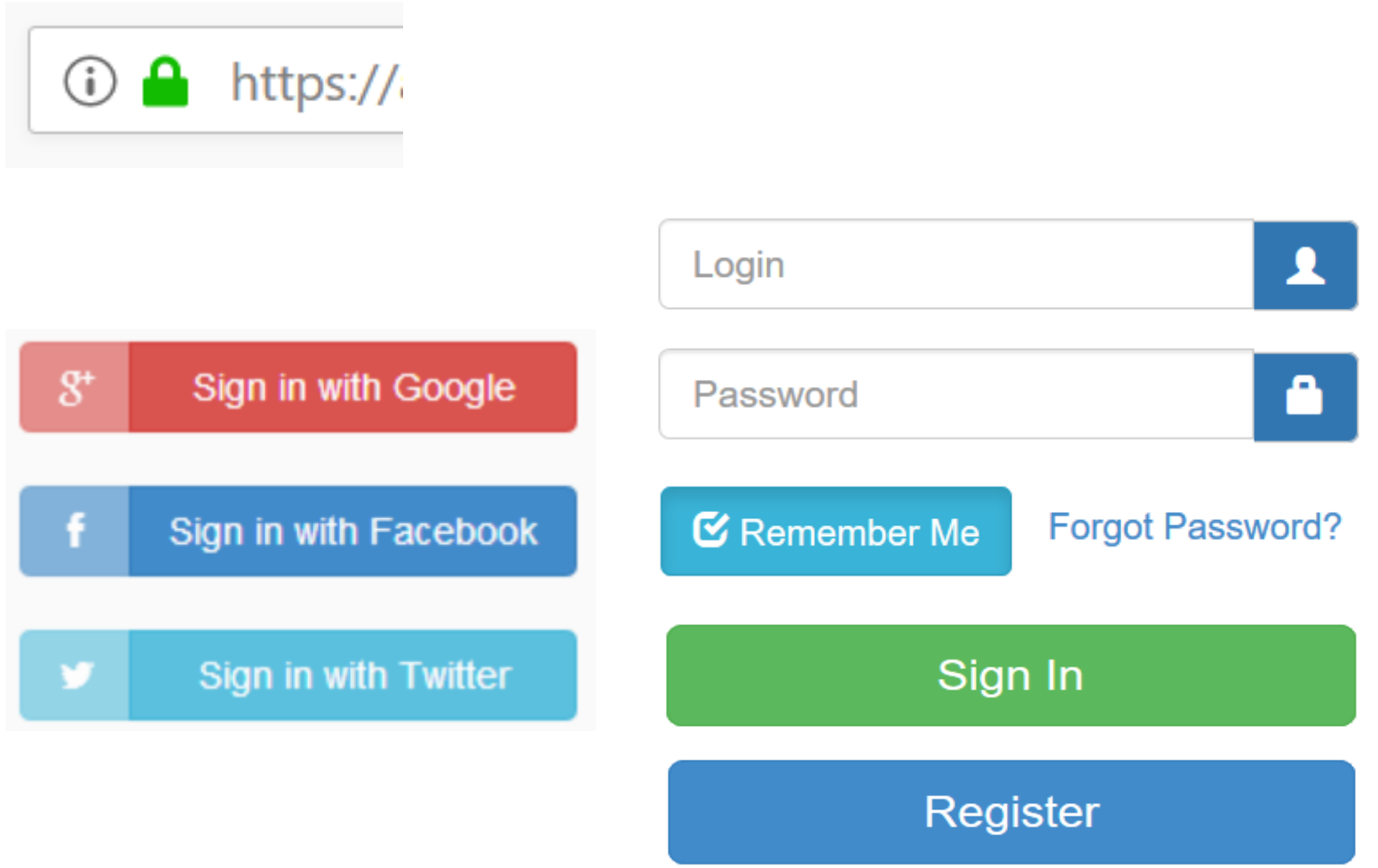
Hashing

What's in It for You?

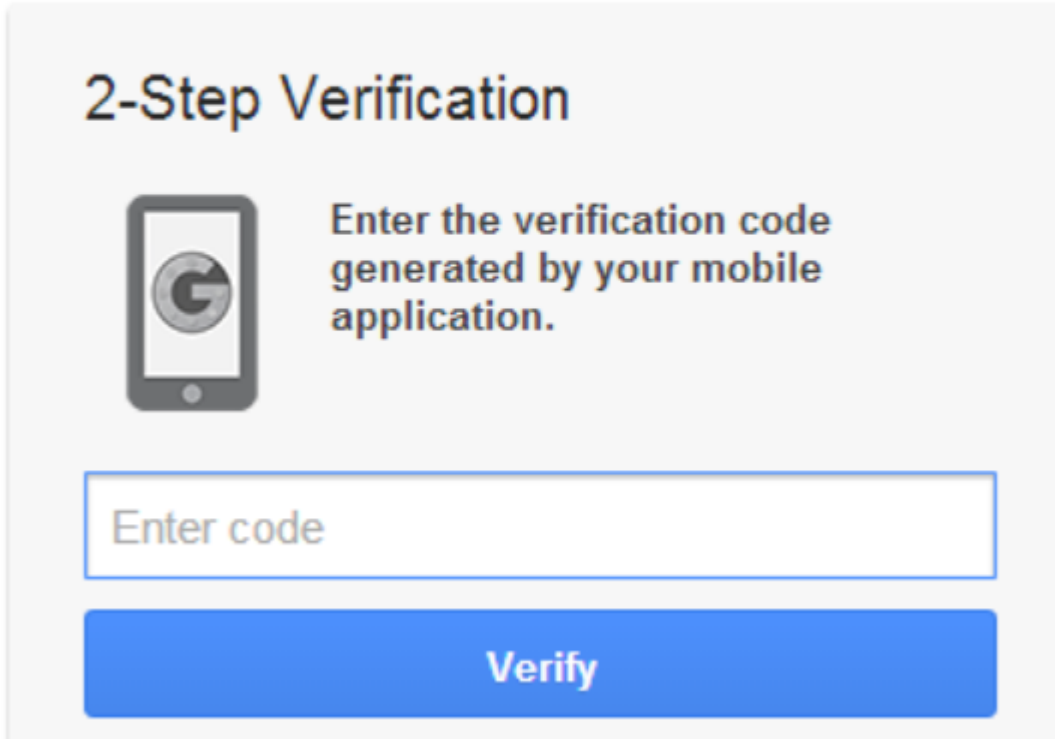
Things You Will Learn

- Form, Basic, and Digest Authentication
- Remember me
- HSTS - HTTP Strict Transport Security
- JWT - Java Web Tokens
- Spring Social for OAuth 2.0 and Open Id
- BCrypt – modern password hashing
- Testing Spring Security

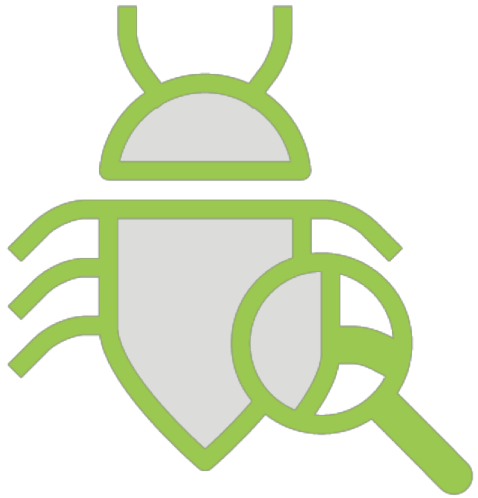
User Sign In


https://
Sign in with Google
Sign in with Facebook
Sign in with Twitter
Login
Password
Remember Me
Forgot Password?
Sign In
Register

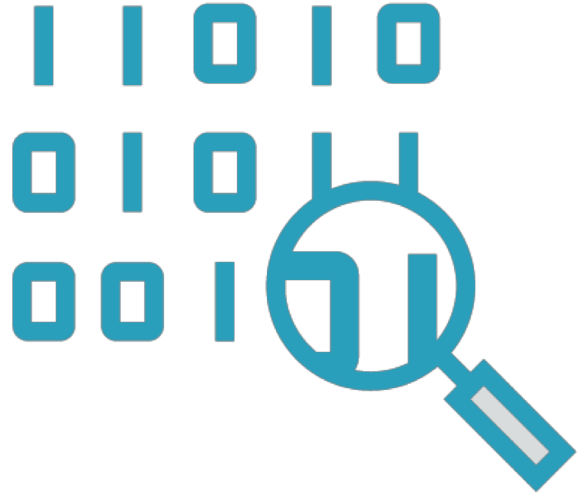
Two-factor Authentication



Benefits



Debug



Customize

What Is Under the Covers

Authentication

Authorization

Exception handling

Modernized password encoding

Prerequisites

- Spring framework
- Spring MVC
- Java 8
- Maven 3
- Spring Tool Suite 3.9+
- Lombok setup

Demo

Setting up Lombok

Introducing the demo

Summary

- Key selling points of Spring Security
- Layered security approach
- Described what you will gain from this course
- Prerequisites