

# Hybrid Spidering Your Web Application

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**Sunny Wear**

SECURITY ARCHITECT AND PENETRATION TESTER

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# Gray Box Testing

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# Authenticated Accounts



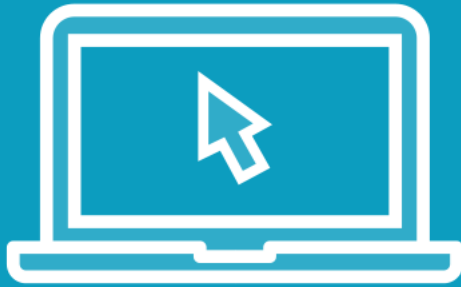
**“Bob”**  
non-admin user



**“Admin”**  
administrator



# Demo



## Validate our accounts

- Login as Bob
- Login as Admin
- Logout prior to scoping



# Scoping Our Target

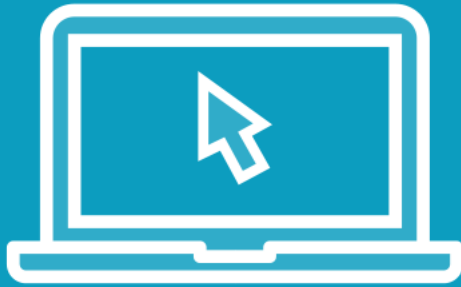
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# Target Sitemap -> Juice Shop



# Demo



**Set target/scope**

**Filter URL**

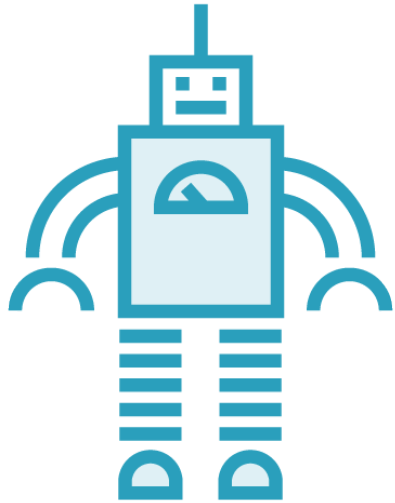


# Spidering Your Scoped Target

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# Types of Spidering



Automated



Manual



Hybrid



# OWASP Juice Shop



## Technology stack

- HTML5
- AngularJS
- bootstrap
- Nodejs

## Event triggers

- Manually click



# Spidering Bob's Account

- 1 Login as Bob
- 2 Set scope
- 3 Spider scope
- 4 Save as session state file

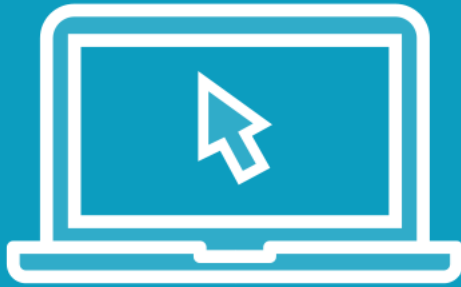


# Spidering Admin's Account

- 1 Login as Admin
- 2 Set scope
- 3 Spider scope
- 4 Leave as current sitemap



# Demo



Hybrid spidering of Juice Shop

Spider Bob's account

Spider admin's account

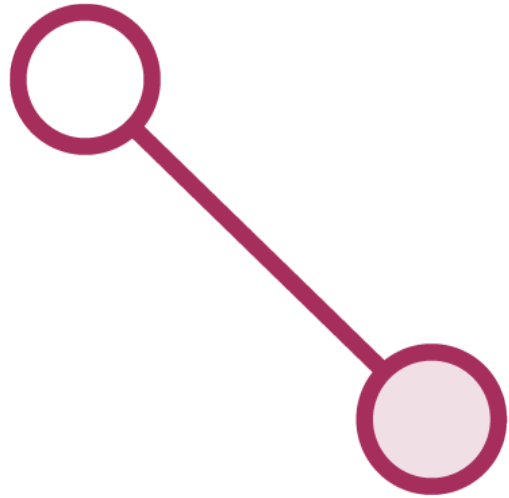


# Privilege Escalation Discovery

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# Clean Demarcation



Non-admin boundaries



Administrator



# Compare Site Maps Functionality

Allows a visual display of differences between two target site maps.

Each site map is loaded into the Comparer module.



# Sitemap Comparison Feature



Sitemap 1



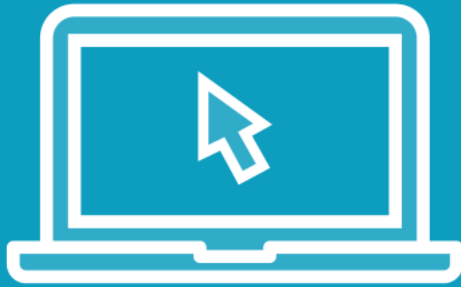
Sitemap 2



Comparison



# Demo



## Sitemap Comparison

- Uses current sitemap
- Compare to saved session sitemap
- Identify privilege escalation opportunities



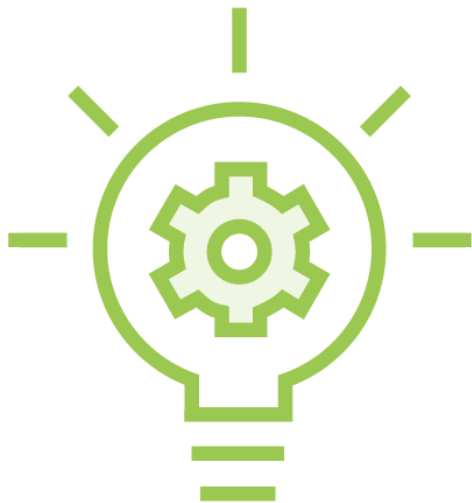


# Directory Brute-forcing

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# Discover Using Custom Wordlists



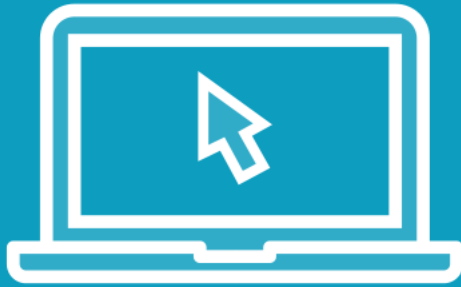
**Unlinked folders**



**Unmapped admin consoles**



# Demo



Use a custom wordlist

Perform discover content attack

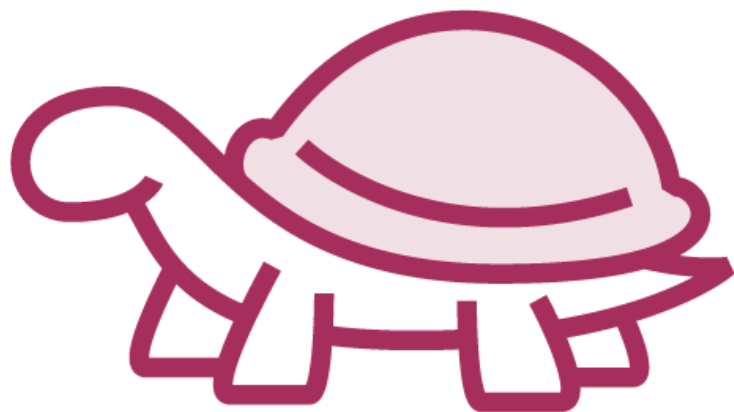


# Scanning our Target

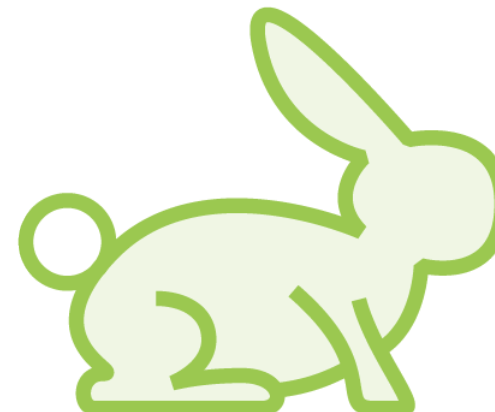
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# Scanner Options



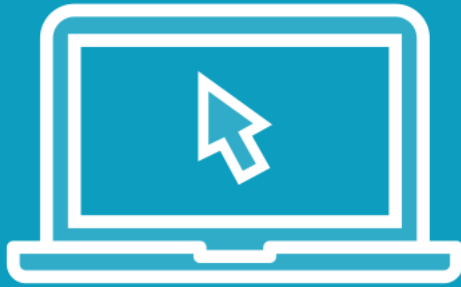
Passive



Active



# Demo



## Scanning against the Juice Shop



# Summary



**Hybrid spidering**

**Site map comparison**

**Directory brute-forcing**

**Scanner findings**

