



This is My Topic

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Overview

1 Introduction

2 Security Countermeasures





Introduction





Statistics for Web Attacks

Something...¹

¹Paul Wood et al. *Symantec Internet Security Threat Report 2016*. Symantec, 2016. URL:

<https://www.symantec.com/content/dam/symantec/docs/reports/istr-21-2016-en.pdf>.

Web Application Attacks

OWASP Top-10 (v. 2013)

Most Critical Web Application Security Risks²

- A1-Injection
- A2-Broken Authentication and Session Management
- A3-Cross-Site Scripting (XSS)
- A4-Insecure Direct Object References
- A5-Security Misconfiguration
- A6-Sensitive Data Exposure
- A7-Missing Function Level Access Control
- A8-Cross-Site Request Forgery (CSRF)
- A9-Using Components with Known Vulnerabilities
- A10-Unvalidated Redirects and Forwards

²OWASP. OWASP Top-10 Most Critical Web Application Security Risks. online. Apr. 2017. URL:

https://www.owasp.org/index.php/Category:OWASP_Top_Ten_Project.

Web Application Attacks: SQL Injection

```
$sql = "SELECT * FROM users  
      WHERE username='admin' AND password='".$_POST['password']."'";  
mysql_query($sql);
```

What if `$_POST['password']` contains string `"' or '1'='1"`

Then, `$sql` will be

`"SELECT * FROM users WHERE username='admin' AND password=' or '1'='1' "`

It is equivalent to

`"SELECT * FROM users WHERE true"`

which returns back everything in the table.

This let attacker eventually gains access
to view or manipulate other data on the server



Security Countermeasures



Security Countermeasures

Something...

OWASP. *SQL Injection Prevention Cheat Sheet*. online. July 2016. URL:

https://www.owasp.org/index.php/SQL_Injection_Prevention_Cheat_Sheet

Summary

Summary:

- abc
- def





Q & A

Q&A and Suggestions



References

- [1] OWASP. *OWASP Top-10 Most Critical Web Application Security Risks*. online. Apr. 2017. URL: https://www.owasp.org/index.php/Category:OWASP_Top_Ten_Project.
- [2] OWASP. *SQL Injection Prevention Cheat Sheet*. online. July 2016. URL: https://www.owasp.org/index.php/SQL_Injection_Prevention_Cheat_Sheet.
- [3] Paul Wood et al. *Symantec Internet Security Threat Report 2016*. Symantec, 2016. URL: <https://www.symantec.com/content/dam/symantec/docs/reports/istr-21-2016-en.pdf>.