

TECHNISCHE UNIVERSITÄT MÜNCHEN

Secure Coding - Phase 2

Blackbox Testing Report

Team 12
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Executive Summary

- 1 DogeBank- Team 27
- 2 Goliath National Bank- Team 12
- 3 Comparison

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1 Timetracking

User	Task	Time
Alexander Lill	Task1	Χh
	Sum	XX h
Lorenzo Donini	Task1	Χh
	Sum	XX h
Florian Mauracher	Set up pentesting environment	2 h
Florian Mauracher	Testing basic functionality of dogebank	2 h
Florian Mauracher	Configuration and Deploy Management Testing	1 h
Florian Mauracher	Authorization Testing	2 h
Florian Mauracher	Data Validation Testing	2 h
Florian Mauracher	Configure basic LateX template	2 h
Florian Mauracher	Create LaTeX template for OWASP checklist	2 h
	Sum	XX h
Mahmoud Naser	Task1	Χh
	Sum	XX h

2 Vulnerabilities Overview

- 2.1 DogeBank
- 2.2 Goliath National Bank
- 2.3 Comparison

3 Detailed Report

3.1 Tools description

3.2 Configuration and Deploy Management Testing

3.2.1 Test File Extensions Handling for Sensitive Information (OTG-CONFIG-003)

	DogeBank
Observation	observation text
Discovery	discovery text
Likelihood	likelihood text
Implication	implication text
CVSS	22

	Goliath National Bank
Observation	observation text
Discovery	discovery text
Likelihood	likelihood text
Implication	implication text
CVSS	22

- 3.2.2 Test HTTP Methods (OTG-CONFIG-006)
- 3.2.3 Test HTTP Strict Transport Security (OTG-CONFIG-007)
- 3.2.4 Test RIA cross domain policy (OTG-CONFIG-008)

3.3 Identity Management Testing

- 3.3.1 Test Role Definitions (OTG-IDENT-001)
- 3.3.2 Test User Registration Process (OTG-IDENT-002)
- 3.3.3 Test Account Provisioning Process (OTG-IDENT-003)
- 3.3.4 Testing for Account Enumeration and Guessable User Account (OTG-IDENT-004)
- 3.3.5 Testing for Weak or unenforced username policy (OTG-IDENT-005)

3.4 Authentication Testing

- 3.4.1 Testing for Credentials Transported over an Encrypted Channel (OTG-AUTHN-001)
- 3.4.2 Testing for default credentials (OTG-AUTHN-002)
- 3.4.3 Testing for Weak lock out mechanism (OTG-AUTHN-003)
- 3.4.4 Testing for bypassing authentication schema (OTG-AUTHN-004)
- 3.4.5 Test remember password functionality (OTG-AUTHN-005)
- 3.4.6 Testing for Browser cache weakness (OTG-AUTHN-006)
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- 3.4.8 Testing for Weak security question/answer (OTG-AUTHN-008)
- 3.4.9 Testing for weak password change or reset functionalities (OTG-AUTHN-009)
- 3.4.10 Testing for Weaker authentication in alternative channel (OTG-AUTHN-010)

3.5 Authorization Testing

- 3.5.1 Testing Directory traversal/file include (OTG-AUTHZ-001)
- 3.5.2 Testing for bypassing authorization schema (OTG-AUTHZ-002)
- 3.5.3 Testing for Privilege Escalation (OTG-AUTHZ-003)
- 3.5.4 Testing for Insecure Direct Object References (OTG-AUTHZ-004)

3.6 Session Management Testing

- 3.6.1 Testing for Bypassing Session Management Schema (OTG-SESS-001)
- 3.6.2 Testing for Cookies attributes (OTG-SESS-002)
- 3.6.3 Testing for Session Fixation (OTG-SESS-003)
- 3.6.4 Testing for Exposed Session Variables (OTG-SESS-004)
- 3.6.5 Testing for Cross Site Request Forgery (OTG-SESS-005)
- 3.6.6 Testing for logout functionality (OTG-SESS-006)
- 3.6.7 Test Session Timeout (OTG-SESS-007)
- 3.6.8 Testing for Session puzzling (OTG-SESS-008)

3.7 Data Validation Testing

- 3.7.1 Testing for Reflected Cross Site Scripting (OTG-INPVAL-001)
- 3.7.2 Testing for Stored Cross Site Scripting (OTG-INPVAL-002)
- 3.7.3 Testing for HTTP Verb Tampering (OTG-INPVAL-003)
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- 3.7.8 Testing for XML Injection (OTG-INPVAL-008)
- 3.7.9 Testing for SSI Injection (OTG-INPVAL-009)
- 3.7.10 Testing for XPath Injection (OTG-INPVAL-010)
- 3.7.11 IMAP/SMTP Injection (OTG-INPVAL-011)
- 3.7.12 Testing for Code Injection (OTG-INPVAL-012)

Testing for Local File Inclusion Testing for Remote File Inclusion

3.7.13 Testing for Command Injection (OTG-INPVAL-013)

3.7.14 Testing for Buffer overflow (OTG-INPVAL-014)

Testing for Heap overflow Testing for Stack overflow Testing for Format string

- 3.7.15 Testing for incubated vulnerabilities (OTG-INPVAL-015)
- 3.7.16 Testing for HTTP Splitting/Smuggling (OTG-INPVAL-016)

3.8 Error Handling

- 3.8.1 Analysis of Error Codes (OTG-ERR-001)
- 3.8.2 Analysis of Stack Traces (OTG-ERR-002)

3.9 Cryptography

- 3.9.1 Testing for Weak SSL/TSL Ciphers, Insufficient Transport Layer Protection (OTG-CRYPST-001)
- 3.9.2 Testing for Padding Oracle (OTG-CRYPST-002)
- 3.9.3 Testing for Sensitive information sent via unencrypted channels (OTG-CRYPST-003)

3.10 Business Logic Testing

- 3.10.1 Test Business Logic Data Validation (OTG-BUSLOGIC-001)
- 3.10.2 Test Ability to Forge Requests (OTG-BUSLOGIC-002)
- 3.10.3 Test Integrity Checks (OTG-BUSLOGIC-003)
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- 3.10.8 Test Upload of Unexpected File Types (OTG-BUSLOGIC-008)
- 3.10.9 Test Upload of Malicious Files (OTG-BUSLOGIC-009)

3.11 Client Side Testing

- 3.11.1 Testing for DOM based Cross Site Scripting (OTG-CLIENT-001)
- 3.11.2 Testing for JavaScript Execution (OTG-CLIENT-002)
- 3.11.3 Testing for HTML Injection (OTG-CLIENT-003)
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