Threat Modeling Report

Created on 2/12/2022 7:38:49 PM

Threat Model Name:

Owner:

Reviewer:

Contributors:

Description:

Assumptions:

External Dependencies:

Threat Model Summary:

Not Started	2
Not Applicable	0
Needs Investigation	9
Mitigation Implemented	1
Total	12
Total Migrated	0

Diagram: Diagram 1

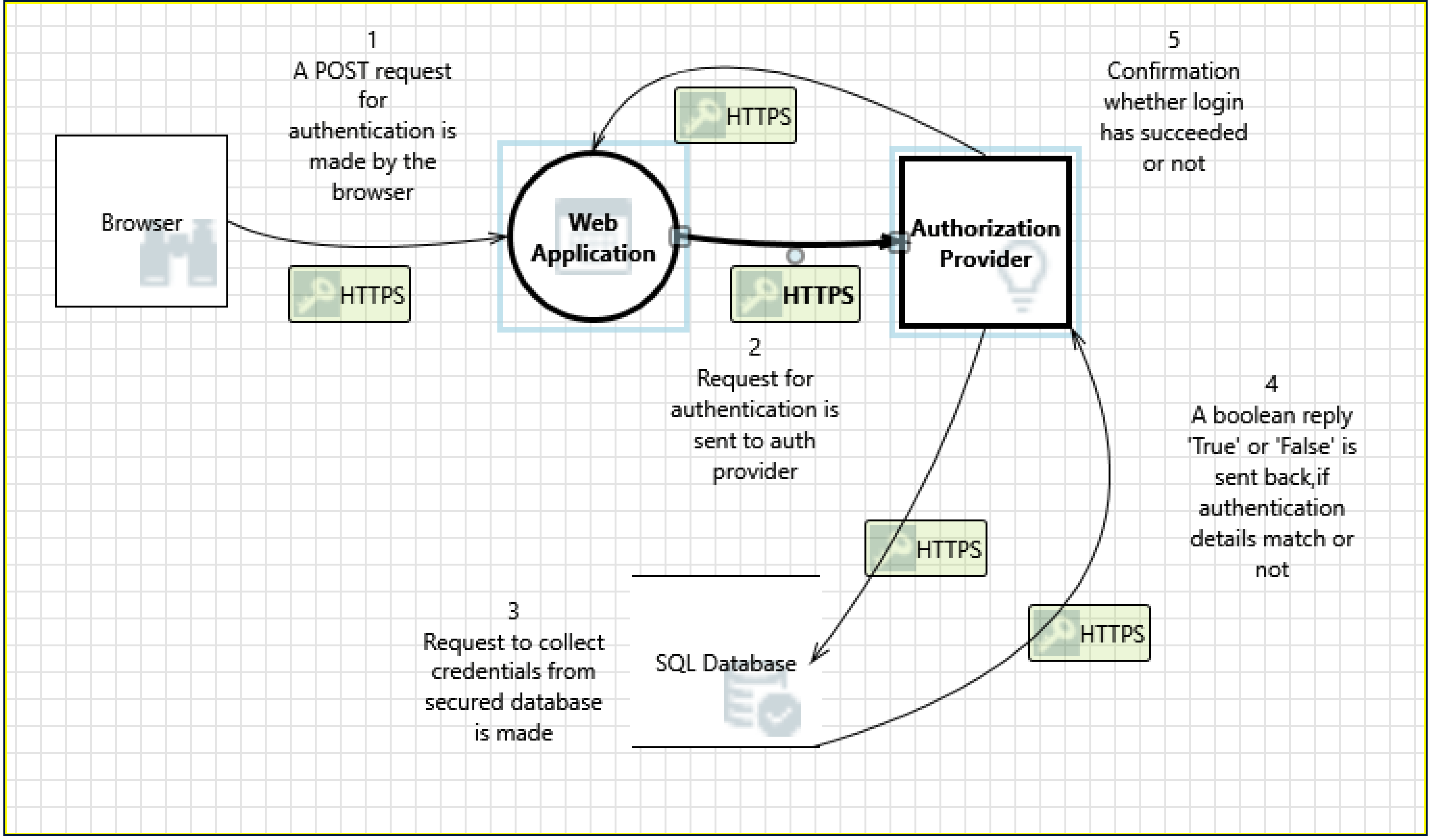
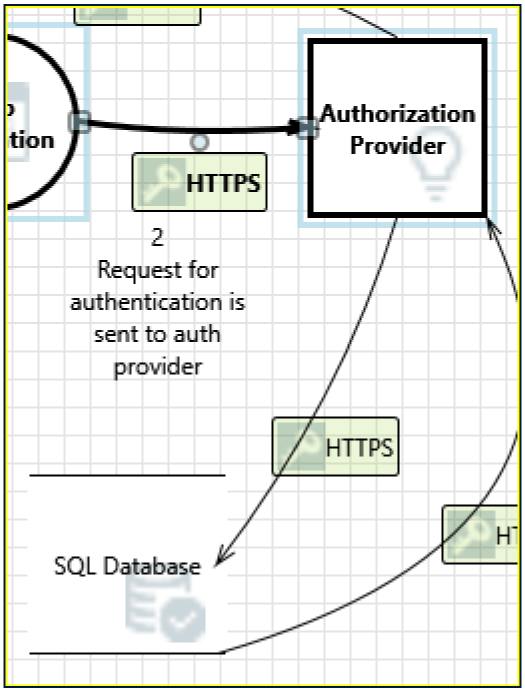

1
A POST request for authentication is made by the browser
5
Confirmation whether login has succeeded or not
HTTPS
Browser
HTTPS
Web Application
HTTPS
Authorization Provider
2
Request for authentication is sent to auth provider
4
A boolean reply 'True' or 'False' is sent back,if authentication details match or not
HTTPS
HTTPS
3
Request to collect credentials from secured database is made
SQL Database

Diagram 1 Diagram Summary:

Not Started	2
Not Applicable	0
Needs Investigation	9
Mitigation Implemented	1
Total	12
Total Migrated	0

Interaction: HTTPS



1. Spoofing of Destination Data Store SQL Database   [State: Needs Investigation] [Priority: High]

Category: Spoofing

Description: SQL Database may be spoofed by an attacker and this may lead to data being written to the attacker's target instead of SQL Database. Consider using a standard authentication mechanism to identify the destination data store.

Justification: <no mitigation provided>

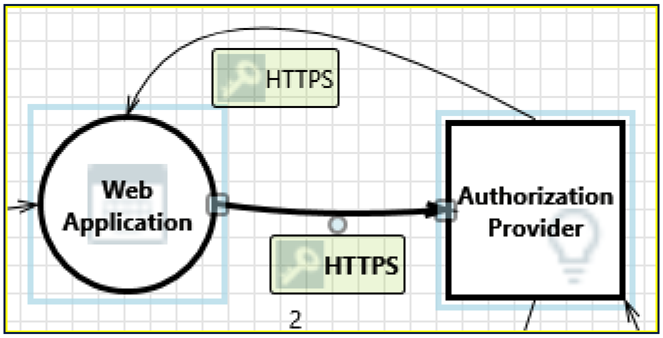
2. Possible SQL Injection Vulnerability for SQL Database   [State: Needs Investigation] [Priority: High]

Category: Tampering

Description: SQL injection is an attack in which malicious code is inserted into strings that are later passed to an instance of SQL Server for parsing and execution. Any procedure that constructs SQL statements should be reviewed for injection vulnerabilities because SQL Server will execute all syntactically valid queries that it receives. Even parameterized data can be manipulated by a skilled and determined attacker.

Justification: <no mitigation provided>

Interaction: HTTPS



3. Spoofing the Authorization Provider External Entity   [State: Needs Investigation] [Priority: High]

Category: Tampering

Description: Authorization Provider may be spoofed by an attacker and this may lead to unauthorized access to Web Application. Consider using a standard authentication mechanism to identify the external entity.

Justification: <no mitigation provided>

4. Cross Site Scripting   [State: Not Started] [Priority: High]

Category: Tampering

Description: The web server 'Web Application' could be a subject to a cross-site scripting attack because it does not sanitize untrusted input.

Justification: <no mitigation provided>

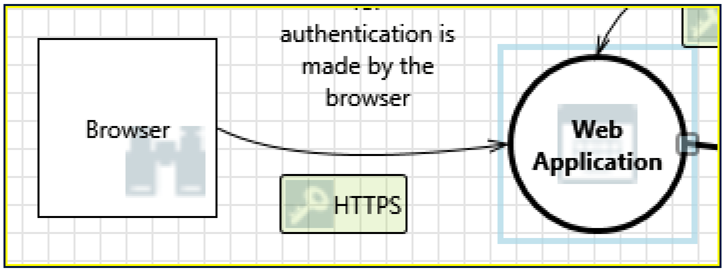
5. Elevation Using Impersonation   [State: Needs Investigation] [Priority: High]

Category: Elevation Of Privilege

Description: Web Application may be able to impersonate the context of Authorization Provider in order to gain additional privilege.

Justification: <no mitigation provided>

Interaction: HTTPS



6. Spoofing the Browser External Entity [State: Needs Investigation] [Priority: High]

Category: Spoofing

Description: Browser may be spoofed by an attacker and this may lead to unauthorized access to Web Application. Consider using a standard authentication mechanism to identify the external entity.

Justification: <no mitigation provided>

7. Cross Site Scripting [State: Not Started] [Priority: High]

Category: Tampering

Description: The web server 'Web Application' could be a subject to a cross-site scripting attack because it does not sanitize untrusted input.

Justification: <no mitigation provided>

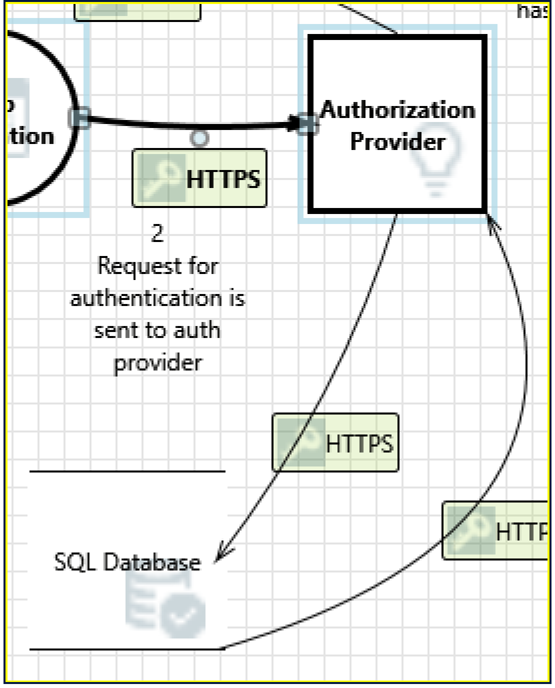
8. Elevation Using Impersonation [State: Needs Investigation] [Priority: High]

Category: Elevation Of Privilege

Description: Web Application may be able to impersonate the context of Browser in order to gain additional privilege.

Justification: <no mitigation provided>

Interaction: HTTPS



9. Spoofing of Source Data Store SQL Database [State: Needs Investigation] [Priority: High]

Category:	Spoofing
Description:	SQL Database may be spoofed by an attacker and this may lead to incorrect data delivered to Authorization Provider. Consider using a standard authentication mechanism to identify the source data store.
Justification:	<no mitigation provided>

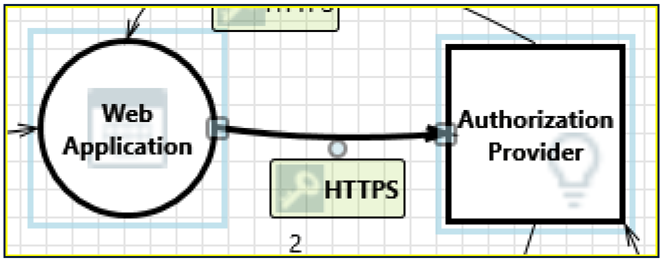
10. Weak Access Control for a Resource [State: Needs Investigation] [Priority: High]

Category:	Information Disclosure
Description:	Improper data protection of SQL Database can allow an attacker to read information not intended for disclosure. Review authorization settings.
Justification:	<no mitigation provided>

11. Weakness in SSO Authorization [State: Mitigation Implemented] [Priority: High]

Category:	Elevation Of Privilege
Description:	Common SSO implementations such as OAUTH2 and OAUTH Wrap are vulnerable to MitM attacks.
Justification:	<no mitigation provided>

Interaction: HTTPS



12. Weakness in SSO Authorization [State: Needs Investigation] [Priority: High]

Category: Elevation Of Privilege

Description: Common SSO implementations such as OAUTH2 and OAUTH Wrap are vulnerable to MitM attacks.

Justification: <no mitigation provided>