

Security Findings of Project "aes 256"

Analysis Date: 2020-03-07 03:05:03

Analyzed Workspace:

Packages:	1	Total LOC:	41
Classes:	1	No. of Bytecode Instructions:	175

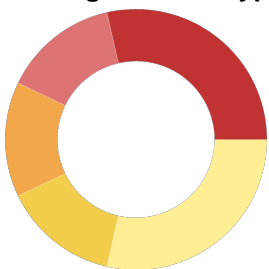
Computed Call Graph:

Classes not in Call Graph:	0	Methods not in Call Graph:	0
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Findings in List:

All Findings:	9	Problematic Findings:	7
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Finding Problem Types:



- Cryptography: Crypto...: 2
- Cryptography: AES En...: 1
- FindSecBugs: ECB mod...: 1
- Cryptography: Check ...: 1
- Other: 2

Finding Classifications:



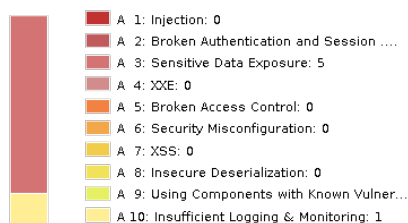
- High risk: 7
- No risk: 2

Finding Ratings:

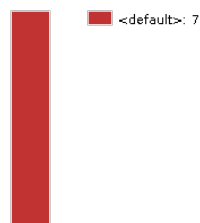


- High risk: 2
- Medium risk: 3
- Low risk: 2

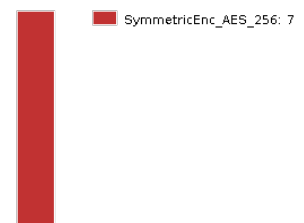
OWASP Top 10 2017



Hot Spots (Packages)



Hot Spots (Classes)



Findings List

Finding ID:	7	Problem Type:	Cryptography: AES Encryption (Protocol Check Findings)
Classification:	Warning	Date:	2020-03-07 03:05:03 - new
Rating:	5.00	Reviewed State:	Not Reviewed
Location:	SymmetricEnc_AES_256.java (<Source Code>):29		
Tags:	no tags assigned		
Comment:	no comment		
Description:	<p>An identified location for problem type 'Cryptography: AES Encryption'. The protocol check detected something wrong when encountering symbol 'CipherInitializationForEncryption_IVMissing': An initialization vector should be used when encrypting.</p> <p>Violated protocol: Creation of an AES Cipher for Encryption Protocol description: Creation of a cipher for AES consists of creating an uninitialized cipher, and then initializing it properly.</p> <p>Matching pattern in protocol check kind 'CipherInitializationForEncryption_IVMissing': void javax.crypto.Cipher.init(int, java.security.Key)</p>		

Finding ID:	6	Problem Type:	Cryptography: Check that only allowed crypto algorithms are used (Protocol Check Findings)
Classification:	Warning	Date:	2020-03-07 03:05:03 - new
Rating:	5.00	Reviewed State:	Not Reviewed
Location:	SymmetricEnc_AES_256.java (<Source Code>):27		
Tags:	no tags assigned		
Comment:	no comment		
Description:	<p>An identified location for problem type 'Cryptography: Check that only allowed crypto algorithms are used'. The protocol check detected something wrong when encountering symbol 'AnyAlgorithm_CipherConstruction': Only AES is allowed as algorithm for encryption or decryption.</p> <p>Violated protocol: Check Allowed Cryptography Algorithms Protocol description: Allow only a given set of cryptography algorithm names where algorithm names are expected.</p> <p>The algorithm names are configured via constant value constraint variables.</p> <p>Names to be checked against can be found here: https://docs.oracle.com/javase/8/docs/technotes/guides/security/StandardNames.html</p> <p>Matching pattern in protocol check kind 'AnyAlgorithm_CipherConstruction': static javax.crypto.Cipher javax.crypto.Cipher.getInstance(java.lang.String, ***)</p>		

Findings List

Finding ID:	4	Problem Type:	Cryptography: Cryptographic Algorithms Used in Project (Special Code)
Classification:	Information	Date:	2020-03-07 03:05:03 - new
Rating:	0.00	Reviewed State:	Not Reviewed
Location:	SymmetricEnc_AES_256.java (<Source Code>):18		
Tags:	no tags assigned		
Comment:	<i>no comment</i>		
Description:	An identified location for problem type 'Cryptography: Cryptographic Algorithms Used in Project'. Declared in: javax.crypto.KeyGenerator Matching pattern in special code kind 'Cryptography: Cryptographic Algorithms Used in Project': static javax.crypto.** javax.crypto.**.getInstance(java.lang.String)		

Finding ID:	5	Problem Type:	Cryptography: Cryptographic Algorithms Used in Project (Special Code)
Classification:	Information	Date:	2020-03-07 03:05:03 - new
Rating:	0.00	Reviewed State:	Not Reviewed
Location:	SymmetricEnc_AES_256.java (<Source Code>):27		
Tags:	no tags assigned		
Comment:	<i>no comment</i>		
Description:	An identified location for problem type 'Cryptography: Cryptographic Algorithms Used in Project'. Declared in: javax.crypto.Cipher Matching pattern in special code kind 'Cryptography: Cryptographic Algorithms Used in Project': static javax.crypto.** javax.crypto.**.getInstance(java.lang.String)		

Finding ID:	1	Problem Type:	Cryptography: Cryptographic Algorithms w/o Specified Crypto-Provider (Special Code)
Classification:	Warning	Date:	2020-03-07 03:05:03 - new
Rating:	1.00	Reviewed State:	Not Reviewed
Location:	SymmetricEnc_AES_256.java (<Source Code>):18		
Tags:	no tags assigned		
Comment:	<i>no comment</i>		
Description:	An identified location for problem type 'Cryptography: Cryptographic Algorithms w/o Specified Crypto-Provider'. Declared in: javax.crypto.KeyGenerator Matching pattern in special code kind 'Cryptography: Cryptographic Algorithms w/o Specified Crypto-Provider': static javax.crypto.** javax.crypto.**.getInstance(java.lang.String)		

Findings List

Finding ID:	2	Problem Type:	Cryptography: Cryptographic Algorithms w/o Specified Crypto-Provider (Special Code)
Classification:	Warning	Date:	2020-03-07 03:05:03 - new
Rating:	1.00	Reviewed State:	Not Reviewed
Location:	SymmetricEnc_AES_256.java (<Source Code>):27		
Tags:	no tags assigned		
Comment:	<i>no comment</i>		
Description:	<p>An identified location for problem type 'Cryptography: Cryptographic Algorithms w/o Specified Crypto-Provider'.</p> <p>Declared in: javax.crypto.Cipher</p> <p>Matching pattern in special code kind 'Cryptography: Cryptographic Algorithms w/o Specified Crypto-Provider':</p> <pre>static javax.crypto.** javax.crypto.**.getInstance(java.lang.String)</pre>		

Finding ID:	9	Problem Type:	FindSecBugs: ECB mode is insecure (SpotBugs Security Issues)
Classification:	Warning	Date:	2020-03-07 03:05:03 - new
Rating:	8.00	Reviewed State:	Not Reviewed
Location:	SymmetricEnc_AES_256.java (<Source Code>):27		
Tags:	no tags assigned		
Comment:	<i>no comment</i>		
Description:	<p>A finding identified by the external 'SpotBugs' plugin:</p> <p>The cipher uses ECB mode, which provides poor confidentiality for encrypted data</p> <p>- In method SymmetricEnc_AES_256.main(String[])</p>		

Finding ID:	3	Problem Type:	Usage: PrintStackTrace (Special Code)
Classification:	Warning	Date:	2020-03-07 03:05:03 - new
Rating:	5.00	Reviewed State:	Not Reviewed
Location:	SymmetricEnc_AES_256.java (<Source Code>):38		
Tags:	no tags assigned		
Comment:	<i>no comment</i>		
Description:	<p>An identified location for problem type 'Usage: PrintStackTrace'.</p> <p>Declared in: java.security.GeneralSecurityException</p> <p>Matching pattern in special code kind 'Usage: PrintStackTrace':</p> <pre>public void java.lang.Throwable.printStackTrace()</pre>		

Findings List

Finding ID:	8	Problem Type:	FindSecBugs: Cipher with no integrity (SpotBugs Security Issues)
Classification:	Warning	Date:	2020-03-07 03:05:03 - new
Rating:	8.00	Reviewed State:	Not Reviewed
Location:	SymmetricEnc_AES_256.java (<Source Code>):27		
Tags:	no tags assigned		
Comment:	<i>no comment</i>		
Description:	A finding identified by the external 'SpotBugs' plugin: The cipher does not provide data integrity - In method SymmetricEnc_AES_256.main(String[])		