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Kotlin static code analysis

Unique rules to find Bugs, Vulnerabilities, Security Hotspots, and Code Smells in your KOTLIN code

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Tags

Search by name...

Hard-coded credentials are security-sensitive
Security Hotspot

Cipher algorithms should be robust
Vulnerability

Encryption algorithms should be used with secure mode and padding scheme
Vulnerability

Server hostnames should be verified during SSL/TLS connections
Vulnerability

Server certificates should be verified during SSL/TLS connections
Vulnerability

Cryptographic keys should be robust
Vulnerability

Weak SSL/TLS protocols should not be used
Vulnerability

"SecureRandom" seeds should not be predictable
Vulnerability

Cipher Block Chaining IVs should be unpredictable
Vulnerability

Hashes should include an unpredictable salt
Vulnerability

Regular expressions should be syntactically valid
Bug

"runFinalizersOnExit" should not be called
Bug

Equals method should be overridden in data classes containing array fields

Analyze your code

Bug Major

In data classes, the default behavior of the `equals()` method is to check the equality by field values. This works well for primitive fields or fields, whose type overrides `equals()`, but this behavior doesn't work as expected for array fields.

By default, array fields are compared by their reference, so overriding `equals()` is highly recommended to ensure a deep equality check. The same applies to the `hashcode()` method.

This rule reports an issue if a record class has an array field and is not overriding `equals()` or `hashcode()` methods.

Noncompliant Code Example

```
data class Person(val names: Array<String>, val age: Int
```

Compliant Solution

```
data class Person(val names: Array<String>, val age: Int
    override fun equals(other: Any?): Boolean {
        if (this === other) return true
        if (javaClass != other?.javaClass) return false

        other as Person

        if (!names.contentEquals(other.names)) return fa
        if (age != other.age) return false

        return true
    }

    override fun hashCode(): Int {
        var result = names.contentHashCode()
        result = 31 * result + age
        return result
    }
}
```

Available In:

sonarlint | sonarcloud | sonarqube

"ScheduledThreadPoolExecutor" should not have 0 core threads

Bug

Jump statements should not occur in "finally" blocks

Bug

Using clear-text protocols is security-sensitive

Security Hotspot

Accessing Android external storage is security-sensitive

Security Hotspot

Receiving intents is security-sensitive

Security Hotspot

Broadcasting intents is security-sensitive

Security Hotspot

Using weak hashing algorithms is security-sensitive

Security Hotspot

Using pseudorandom number generators (PRNGs) is security-sensitive

Security Hotspot

Empty lines should not be tested with regex MULTILINE flag

Code Smell

Cognitive Complexity of functions should not be too high

Code Smell