

# Quality issues

Kwaliteitsproblemen geïdentificeerd door SonarQube: Clean Code en Softwarekwaliteit.

Dit rapport presenteert de geconstateerde bugs en kwaliteitsproblemen in de code, gecategoriseerd onder Clean Code en Softwarekwaliteit door SonarQube. Voor elke bug wordt een gedetailleerde toelichting gegeven, samen met voorgestelde oplossingen.

## ✓ Clean Code Attribute

Consistency	26
Intentionality	27
Adaptability	9
Responsibility	1

## ✓ Software Quality

Security	1
Reliability	4
Maintainability	58

## Clean Code:

### Consistentieproblemen:

#### 1. Variabele- en Functienamen:

- Probleem: Onconsistente benoeming van variabelen en functies.
- Oplossing: Gebruik consistente en betekenisvolle namen.

#### 2. Coding Style:

- Probleem: Inconsistent gebruik van inspringing en spaties.
- Oplossing: Handhaaf een consistente coding style voor betere leesbaarheid.

### Intentieproblemen:

#### 1. Commentaar:

- Probleem: Onvoldoende of slecht commentaar.
- Oplossing: Voeg duidelijke documentatie en commentaren toe.

#### 2. Magische Getallen en Strings:

- Probleem: Gebruik van hardcoded getallen en strings zonder uitleg.
- Oplossing: Gebruik betekenisvolle constanten en documenteer ze.

### Aanpasbaarheidsproblemen:

#### 1. Hard-gecodeerde Waarden:

- Probleem: Directe invoer van waarden maakt wijzigingen moeilijk.
- Oplossing: Houd configuraties apart voor eenvoudigere aanpasbaarheid.

#### 2. Overmatige Afhankelijkheden:

- Probleem: Te veel afhankelijkheden tussen delen van de code.
- Oplossing: Minimaliseer afhankelijkheden en gebruik interfaces.

### Verantwoordelijkheidsproblemen:

#### 1. Single Responsibility Principle (SRP):

- Probleem: Functies en klassen hebben geen duidelijk afgebakende verantwoordelijkheid.
- Oplossing: Verdeel de verantwoordelijkheid duidelijk.

## **Softwarekwaliteit:**

### Beveiligingsproblemen:

- 1. Onvoldoende Authenticatie en Autorisatie:**
  - Probleem: Gebrekkige implementatie van gebruikersauthenticatie en autorisatie.
  - Oplossing: Implementeer sterke authenticatie en autorisatieprotocollen.
- 2. Onvoldoende Gegevensencryptie:**
  - Probleem: Ontbreken van encryptie kan leiden tot beveiligingsrisico's.
  - Oplossing: Gebruik sterke encryptieprotocollen.
- 3. Onvoldoende Logging en Monitoring:**
  - Probleem: Gebrek aan logging maakt beveiligingstaken moeilijk.
  - Oplossing: Implementeer gedegen logging en monitoring.

### Onderhoudsproblemen:

- 1. Slechte Codekwaliteit:**
  - Probleem: Onduidelijke en rommelige code.
  - Oplossing: Volg best practices voor schone code.
- 2. Gebrek aan Modulaire Structuur:**
  - Probleem: Gebrek aan scheiding bemoeilijkt onderhoud.
  - Oplossing: Implementeer een modulaire structuur.
- 3. Onvoldoende Testdekking:**
  - Probleem: Gebrek aan uitgebreide tests.
  - Oplossing: Schrijf uitgebreide tests voor betere onderhoudbaarheid.

Alles dat gevonden is door SonarQube:

**database.php:**

- Responsibility issue

**Revoke and change this password, as it is compromised.**

**index.php:**

- Adaptability issue

**Replace "include\_once" with namespace import mechanism through the "use" keyword.**

- Consistency issue

**Remove the useless trailing whitespaces at the end of this line.**

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- Adaptability issue

**Replace "include\_once" with namespace import mechanism through the "use" keyword.**

**move.php:**

- Consistency issue

**Add a new line at the end of this file.**

- Adaptability issue

**Replace "include\_once" with namespace import mechanism through the "use" keyword.**

- Intentionality issue

**Add curly braces around the nested statement(s).**

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- ○ Adaptability issue

**Replace "include" with namespace import mechanism through the "use" keyword.**

- Consistency issue

**Replace "include" with "include\_once".**

- Consistency issue

**Split this 137 characters long line (which is greater than 120 authorized).**

- Consistency issue

**Remove this closing tag ">".**

**pass.php:**

- Consistency issue

**Add a new line at the end of this file.**

- Adaptability issue

**Replace "include" with namespace import mechanism through the "use" keyword.**

- Consistency issue

**Replace "include" with "include\_once".**

- Consistency issue

**Split this 135 characters long line (which is greater than 120 authorized).**

- Consistency issue

**Remove this closing tag ">".**

**play.php:**

- Consistency issue

**Add a new line at the end of this file.**

- Adaptability issue

**Replace "include\_once" with namespace import mechanism through the "use" keyword.**

- Intentionality issue

**Add curly braces around the nested statement(s).**

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**Add curly braces around the nested statement(s).**

- Adaptability issue

**Replace "include" with namespace import mechanism through the "use" keyword.**

- Consistency issue

**Replace "include" with "include\_once".**

- Consistency issue

**Split this 133 characters long line (which is greater than 120 authorized).**

- Consistency issue

**Remove this closing tag ">".**

#### restart.php:

- Consistency issue

**Add a new line at the end of this file.**

- Consistency issue

**Split this 135 characters long line (which is greater than 120 authorized).**

- Adaptability issue

**Replace "include\_once" with namespace import mechanism through the "use" keyword.**

- Consistency issue

**Remove this closing tag ">".**

#### undo.php:

- Adaptability issue

**Replace "include" with namespace import mechanism through the "use" keyword.**

- Consistency issue

**Replace "include" with "include\_once".**

- Consistency issue

**Remove this closing tag ">".**

#### util.php

- Consistency issue

**Add a new line at the end of this file.**

- Intentionality issue

**This function has 4 returns, which is more than the 3 allowed.**

- Intentionality issue

**Add curly braces around the nested statement(s).**



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- Consistency issue

**Remove this closing tag ">".**

Dit rapport dient als een gids om de codekwaliteit te verbeteren en de algemene softwarekwaliteit te waarborgen.