

# BMA rule: Expression is too complex

## Explanation

This rule analyses all expressions and determines whether they are complex by the following criteria:

- more than five AND or OR logical operators
- more than two nested COLLECT statements

We estimate that resolving this issue will on average take 30 minutes.

## Parameters

This rule can be configured using the following parameters:

maxLogicalOperations	The maximum acceptable number of AND or OR logical operations for an expression to not be considered complex. Default Value: 5
maxNestedCollects	The maximum acceptable number of nested COLLECT statements for an expression to not be considered complex. Default Value: 2

## Possible improvement

Try to split up some part of the expression, either as reusable expression, using an intermediate attribute or using a local variable. If this is not possible make sure to put comments in the expression explaining what is happening.

## Example

This expression is considered too complex (and unnecessarily complex as well, because the desired result could simply be achieved by `SUM( COLLECT Person.PersonalPremium FROM ALL Person )!`)

Policy.OverallPremium X

DEFINITION

Entity

Policy

Name

OverallPremium

Askable

Type

Currency

MultiValued

Value list

DEFAULT VALUE

Type

Expression

Expression

SUM( COLLECT SUM( COLLECT AdditionalCoverage.Premium FROM FamilyMember.HasAdditionalCoverages ) FROM ALL FamilyMember ) + SUM( COLLECT SUM( COLLECT BasicCoverage.Premium FROM FamilyMember.HasBasicCoverage ) FROM ALL FamilyMember ) + ISUNKNOWN( SUM ( COLLECT AdditionalCoverage.Premium FROM Applicant.HasAdditionalCoverages ), 0 ) + Applicant.HasBasicCoverage.Premium

It results in this code smell:

Attribute Policy.OverallPremium contains a too complex expression: 'SUM( COLLECT SUM( COLLECT AdditionalCoverage.Premium FROM FamilyMember.HasAdditionalCoverages ) FROM ALL FamilyMember ) + SUM( COLLECT SUM( COLLECT BasicCoverage.Premium FROM FamilyMember.HasBasicCoverage ) FROM ALL FamilyMember ) + ISUNKNOWN( SUM ( COLLECT AdditionalCoverage.Premium FROM Applicant.HasAdditionalCoverages ), 0 ) + Applicant.HasBasicCoverage.Premium' and contains no explaining comment

See Rule

Code Smell

Major

Open

Not assigned

30min effort

Comment