

# Politecnico di Milano

# Scuola di Ingegneria Industriale e dell'Informazione

M.Sc. in Computer Science and Engineering

# GlassFish Server

Code Inspection

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# Abstract

This document is the Code Inspection.

@nno @nlv @ndl

(a)

@bht

@des

@destrue

# 1 Functional Role of Classes

# 2 List of Issues

# 2.1 preInvokeNoTx

#### Method

• Name: preInvokeNoTx( EjbInvocation inv )

• **Start Line:** 1599

• Location: appserver/persistence/entitybean-container/src/main/ java/org/glassfish/persistence/ejb/entitybean/container/EntityContainer. java

### Naming Convention

- 1. Name meaningfulness: No issues found.
- 2. One char for loops: In line 1609 a single char name is used for a not throwaway var.
- 3. Classes are nouns in camelCase: No issues found.
- 4. Interfaces are nouns in camelCase: No issues found.
- 5. Methods are verbs in camelCase: No issues found.
- 6. Class variables in camelCase (may be preceded by "\_"): No issues found.
- 7. Constants all UPPERCASE (with words separated by "\_"): No issues found.

#### Indention

- 8. Three or four spaces: No issues found.
- 9. No tabs: No issues found.

#### **Braces**

- 10. Consistent bracing style: No issues found.
- 11. Single statements sorrounded by curly braces: No issues found.

#### File Organization

- 12. Blank lines and optional comments to separate sections: No issues found.
- 13. Line length i = 80 characters (when practical): No issues found.
- 14. If it must exceed 80 characters, then they are j=120: No issues found.

### Wrapping Lines

- 15. Line breaks after comma or operator: No issues found.
- 16. Higher-level breaks are used: No issues found.
- 17. New statements aligned with same level expressions: No issues found.

#### Comments

- 18. Comments adequately explain the purpose of the code: No issues found.
- 19. Commented code has reason to exist and contains date: No issues found.

#### Java Source Files

- 20. Each java source file contains only one public class or interface: No issues found.
- 21. The public class is the first class or interface in the file: No issues found.
- 22. External program interfaces are implemented consistently w.r.t. the javadoc: No issues found.
- 23. Javadoc is complete: Method has not a Javadoc comment.

#### Package and Import Statements

24. If any package statements are needed, they should be the first non-comment statements: No issues found.

#### Class and Interface Declarations

- 25. Class or interface follows the declaration template:
  - (a) Class/interface documentation comment
  - (b) Class/interface statement
  - (c) Class/interface implementation comment, if necessary

- (d) Class (static) variables
  - i. first *public* class variables
  - ii. next protected class variables
  - iii. next package level (no access modifier)
  - iv. last *private* class variables
- (e) Instance variables
  - i. first *public* class variables
  - ii. next protected class variables
  - iii. next package level (no access modifier)
  - iv. last private class variables
- (f) Constructors
- (g) Methods
- : No issues found.
- 26. Methods grouped by functionality: No issues found.
- 27. Code is free of duplicates, long methods, big classes, breaking encapsulation, also, coupling and cohesion are adequate: No issues found.

#### **Initialization and Declarations**

- 28. Correct type of variables and class members (right visibility): No issues found.
- 29. Variables are declared in the proper scope: No issues found.
- 30. Constructors are called when a new object is desired: No issues found.
- 31. All object references are initialized before use: No issues found.
- 32. Variables are initialized where they are declared, unless dependent upon a computation: No issues found.
- 33. Declarations appear at the beginning of blocks: No issues found.

#### Method Calls

- 34. Parameters are presented in the correct order: No issues found.
- 35. Correct method is being called: No issues found.
- 36. Method returned variables are used properly: No issues found.

#### Arrays

- 37. Required array elements are accessed through the index: No issues found.
- 38. Indexes have been prevented from going out-of-bounds: No issues found.
- 39. Constructors are called when a new array item is desired: No issues found.

# Object Comparison

40. All objects are compared with "equals": No issues found.

#### **Output Format**

- 41. Displayed output is free of spelling and grammatical errors: No issues found.
- 42. Error messages are comprehensive and provide guidance as to how to correct the problem: No issues found.
- 43. Output is formatted correctly in terms of line stepping and spacing: No issues found.

#### Computation, Comparisons and Assignments

- 44. Implementation avoids "brutish programming" 1: No issues found.
- 45. Order of computation/evaluation, operator precedence and parenthesizing: No issues found.
- 46. Liberal use of parenthesis is used to avoid operator precedence problems.: No issues found.
- 47. All denominators of a division are prevented from being zero: No issues found.
- 48. Integer arithmetic, especially division, are used appropriately to avoid causing unexpected truncation/rounding: No issues found.
- 49. Comparison and Boolean operators are correct: No issues found.
- 50. Throw-catch expressions, and their error condition is actually legitimate: No issues found.
- 51. Code is free of any implicit type conversions: No issues found.

<sup>&</sup>lt;sup>1</sup>See http://users.csc.calpoly.edu/~jdalbey/SWE/CodeSmells/bonehead.html.

#### Exceptions

- 52. Relevant exceptions are caught: No issues found.
- 53. Appropriate action are taken for each catch block: No issues found.

#### Flow of control

- 54. In a switch statement, all cases are addressed by break or return: No issues found.
- 55. All switch statements have a default branch: No issues found.
- 56. All loops are correctly formed, with the appropriate initialization, increment and termination expressions: No issues found.

#### **Files**

- 57. All files are properly declared and opened: No issues found.
- 58. All files are closed properly, even in the case of an error: No issues found.
- 59. EOF conditions are detected and handled correctly: No issues found.
- 60. All file exceptions are caught and dealt with accordingly: No issues found.

#### 2.2 isHomeFinder

#### Method

- Name: isHomeFinder( Method method )
- **Start Line:** 1652
- Location: appserver/persistence/entitybean-container/src/main/java/org/glassfish/persistence/ejb/entitybean/container/EntityContainer.java

#### Naming Convention

- 1. Name meaningfulness: No issues found.
- 2. One char for loops: No issues found.
- 3. Classes are nouns in camelCase: No issues found.
- 4. Interfaces are nouns in camelCase: No issues found.

- 5. Methods are verbs in camelCase: No issues found.
- 6. Class variables in camelCase (may be preceded by "\_"): No issues found.
- 7. Constants all UPPERCASE (with words separated by "\_"): No issues found.

#### Indention

- 8. Three or four spaces: No issues found.
- 9. No tabs: No issues found.

#### **Braces**

- 10. Consistent bracing style: No issues found.
- 11. Single statements sorrounded by curly braces: No issues found.

# File Organizaion

- 12. Blank lines and optional comments to separate sections: No issues found.
- 13. Line length i = 80 characters (when practical): No issues found.
- 14. If it must exceed 80 characters, then they are j = 120: No issues found.

#### Wrapping Lines

- 15. Line breaks after comma or operator: No issues found.
- 16. Higher-level breaks are used: No issues found.
- 17. New statements aligned with same level expressions: No issues found.

#### Comments

- 18. Comments adequately explain the purpose of the code: No issues found.
- 19. Commented code has reason to exist and contains date: No issues found.

#### Java Source Files

- 20. Each java source file contains only one public class or interface: No issues found.
- 21. The public class is the first class or interface in the file: No issues found.
- 22. External program interfaces are implemented consistently w.r.t. the javadoc: No issues found.
- 23. Javadoc is complete: Method has not a Javadoc comment.

#### Package and Import Statements

24. If any package statements are needed, they should be the first non-comment statements: No issues found.

#### Class and Interface Declarations

- 25. Class or interface follows the declaration template:
  - (a) Class/interface documentation comment
  - (b) Class/interface statement
  - (c) Class/interface implementation comment, if necessary
  - (d) Class (static) variables
    - i. first *public* class variables
    - ii. next protected class variables
    - iii. next package level (no access modifier)
    - iv. last private class variables
  - (e) Instance variables
    - i. first *public* class variables
    - ii. next protected class variables
    - iii. next package level (no access modifier)
    - iv. last private class variables
  - (f) Constructors
  - (g) Methods
  - : No issues found.
- 26. Methods grouped by functionality: No issues found.
- 27. Code is free of duplicates, long methods, big classes, breaking encapsulation, also, coupling and cohesion are adequate: No issues found.

### Initialization and Declarations

- 28. Correct type of variables and class members (right visibility): No issues found.
- 29. Variables are declared in the proper scope: No issues found.
- 30. Constructors are called when a new object is desired: No issues found.
- 31. All object references are initialized before use: No issues found.
- 32. Variables are initialized where they are declared, unless dependent upon a computation: No issues found.
- 33. Declarations appear at the beginning of blocks: No issues found.

#### **Method Calls**

- 34. Parameters are presented in the correct order: No issues found.
- 35. Correct method is being called: No issues found.
- 36. Method returned variables are used properly: No issues found.

#### Arrays

- 37. Required array elements are accessed through the index: No issues found.
- 38. Indexes have been prevented from going out-of-bounds: No issues found.
- 39. Constructors are called when a new array item is desired: No issues found.

#### Object Comparison

40. All objects are compared with "equals": In line 1657 it's not used equals to compare two objects.

#### **Output Format**

- 41. Displayed output is free of spelling and grammatical errors: No issues found
- 42. Error messages are comprehensive and provide guidance as to how to correct the problem: No issues found.
- 43. Output is formatted correctly in terms of line stepping and spacing: No issues found.

#### Computation, Comparisons and Assignments

- 44. Implementation avoids "brutish programming" <sup>2</sup>: No issues found.
- 45. Order of computation/evaluation, operator precedence and parenthesizing: No issues found.
- 46. Liberal use of parenthesis is used to avoid operator precedence problems.: No issues found.
- 47. All denominators of a division are prevented from being zero: No issues found.
- 48. Integer arithmetic, especially division, are used appropriately to avoid causing unexpected truncation/rounding: No issues found.
- 49. Comparison and Boolean operators are correct: No issues found.
- 50. Throw-catch expressions, and their error condition is actually legitimate: No issues found.
- 51. Code is free of any implicit type conversions: No issues found.

#### Exceptions

- 52. Relevant exceptions are caught: No issues found.
- 53. Appropriate action are taken for each catch block: No issues found.

#### Flow of control

- 54. In a switch statement, all cases are addressed by break or return: No issues found.
- 55. All switch statements have a default branch: No issues found.
- 56. All loops are correctly formed, with the appropriate initialization, increment and termination expressions: No issues found.

#### Files

- 57. All files are properly declared and opened: No issues found.
- 58. All files are closed properly, even in the case of an error: No issues found.
- 59. EOF conditions are detected and handled correctly: No issues found.

<sup>&</sup>lt;sup>2</sup>See http://users.csc.calpoly.edu/~jdalbey/SWE/CodeSmells/bonehead.html.

 $60. \ All \ file \ exceptions \ are \ caught \ and \ dealt \ with \ accordingly:$  No issues found.

# 3 Other Problems

This section contains formatting problems found in all the class.

# 3.1 Indentation

- - line:"773"
  - error: "if child have incorrect indentation level 16, expected level should be 20."
- - line:"773"
  - error:"—— have incorrect indentation level 16, expected level should be 20."
- - line:"853"
  - error: "EjbInvocation have incorrect indentation level 5, expected level should be 8."
- - line:"881"
  - error:"! have incorrect indentation level 8, expected level should be 12."
- - line:"881"
  - -error: "if child have incorrect indentation level 8, expected level should be 12."
- - line:"1035"
  - error: "method def lparen have incorrect indentation level 8, expected level should be 4."
- - line:"1050"
  - error: "( have incorrect indentation level 2, expected level should be 9."
- - line:"1053"
  - error: "active TxCache have incorrect indentation level 3, expected level should be 6."
- - line:"1688"
  - error: "method call child have incorrect indentation level 11, expected level should be 12."

- - line:"1688"
  - error: "try child have incorrect indentation level 11, expected level should be 12."
- - line:"1713"
  - error: "method def modifier have incorrect indentation level 24, expected level should be one of the following: 28, 32."
- - line:"1714"
  - error: "method call child have incorrect indentation level 28, expected level should be one of the following: 32, 36."
- - line:"1714"
  - error: "method def child have incorrect indentation level 28, expected level should be one of the following: 32, 36."
- - line:"1715"
  - error: "method def child have incorrect indentation level 28, expected level should be one of the following: 32, 36."
- - line:"1716"
  - error: "method def reurly have incorrect indentation level 24, expected level should be one of the following: 28, 32."
- - line:"1717"
  - error: "object def reurly have incorrect indentation level 20, expected level should be one of the following: 24, 28."
- - line:"1727"
  - error: "if child have incorrect indentation level 26, expected level should be 32."
- - line:"1750"
  - error: "method def modifier have incorrect indentation level 24, expected level should be one of the following: 28, 32."
- - line:"1751"
  - error: "method call child have incorrect indentation level 28, expected level should be one of the following: 32, 36."
- - line:"1751"

- error: "method def child have incorrect indentation level 28, expected level should be one of the following: 32, 36."

#### • - line:"1752"

- error: "method def child have incorrect indentation level 28, expected level should be one of the following: 32, 36."

#### • - line:"1753"

- error: "method def rcurly have incorrect indentation level 24, expected level should be one of the following: 28, 32."

#### • - line:"1754"

- error: "object def reurly have incorrect indentation level 20, expected level should be one of the following: 24, 28."

#### • - line:"1837"

- error: "method def lparen have incorrect indentation level 8, expected level should be 4."

#### • - line:"1843"

- error: "method def lparen have incorrect indentation level 8, expected level should be 4."

#### • - line:"1850"

- error: "method def lparen have incorrect indentation level 8, expected level should be 4."

# • - line:"2144"

- error: "ejbContainerUtilImpl have incorrect indentation level 2, expected level should be 9."

#### • - line:"2147"

- error: "if child have incorrect indentation level 8, expected level should be 12."

#### • - line:"2461"

- error: "method call lparen have incorrect indentation level 28, expected level should be 24."

# • - line:"2909"

- error: "method def modifier have incorrect indentation level 24, expected level should be one of the following: 28, 32."

# • - line:"2910"

- error: "method call child have incorrect indentation level 28, expected level should be one of the following: 32, 36."

#### • - line:"2910"

- error: "method def child have incorrect indentation level 28, expected level should be one of the following: 32, 36."

#### • - line:"2911"

- error: "method def child have incorrect indentation level 28, expected level should be one of the following: 32, 36."

#### • - line:"2912"

- error: "method def rcurly have incorrect indentation level 24, expected level should be one of the following: 28, 32."

#### • - line:"2913"

- error: "object def reurly have incorrect indentation level 20, expected level should be one of the following: 24, 28."

# • - line:"2946"

- error: "method def modifier have incorrect indentation level 24, expected level should be one of the following: 28, 32."

#### • - line:"2947"

- error: "method call child have incorrect indentation level 28, expected level should be one of the following: 32, 36."

#### - line:"2947"

- error: "method def child have incorrect indentation level 28, expected level should be one of the following: 32, 36."

#### • - line:"2948"

- error: "method def child have incorrect indentation level 28, expected level should be one of the following: 32, 36."

# • - line:"2949"

- error: "method def rcurly have incorrect indentation level 24, expected level should be one of the following: 28, 32."
- - line:"2950"
  - error: "object def reurly have incorrect indentation level 20, expected level should be one of the following: 24, 28."
- - line:"2976"
  - error: "implements have incorrect indentation level 1, expected level should be 8."
- - line:"3020"
  - error: "method def modifier have incorrect indentation level 4, expected level should be 8."

# 3.2 Line length

- - line:"267"
  - error: "Line is longer than 80 characters (found 89)."
- - line:"272"
  - error: "Line is longer than 80 characters (found 118)."
- - line:"312"
  - error: "Line is longer than 80 characters (found 91)."
- - line:"321"
  - error: "Line is longer than 80 characters (found 91)."
- - line:"325"
  - error: "Line is longer than 80 characters (found 88)."
- - line:"346"
  - error: "Line is longer than 80 characters (found 89)."
- line:"437"
  - error: "Line is longer than 80 characters (found 89)."
- - line:"438"

- error: "Line is longer than 80 characters (found 82)."
- - line:"440"
  - error: "Line is longer than 80 characters (found 87)."
- - line:"466"
  - error: "Line is longer than 80 characters (found 86)."
- - line:"486"
  - error: "Line is longer than 80 characters (found 83)."
- - line:"499"
  - error: "Line is longer than 80 characters (found 94)."
- - line:"786"
  - error: "Line is longer than 80 characters (found 85)."
- - line:"824"
  - error: "Line is longer than 80 characters (found 88)."
- - line:"827"
  - error: "Line is longer than 80 characters (found 99)."
- - line:"834"
  - error: "Line is longer than 80 characters (found 94)."
- - line:"837"
  - error: "Line is longer than 80 characters (found 101)."
- - line:"1004"
  - error: "Line is longer than 80 characters (found 99)."
- - line:"1005"
  - error: "Line is longer than 80 characters (found 87)."
- - line:"1006"
  - error: "Line is longer than 80 characters (found 96)."
- - line:"1007"
  - error: "Line is longer than 80 characters (found 96)."

- - line:"1008"
  - error: "Line is longer than 80 characters (found 97)."
- - line:"1009"
  - error: "Line is longer than 80 characters (found 96)."
- - line:"1013"
  - error: "Line is longer than 80 characters (found 97)."
- - line:"1015"
  - error: "Line is longer than 80 characters (found 99)."
- - line:"1016"
  - error: "Line is longer than 80 characters (found 87)."
- - line:"1017"
  - error: "Line is longer than 80 characters (found 88)."
- - line:"1018"
  - error: "Line is longer than 80 characters (found 96)."
- - line:"1019"
  - error: "Line is longer than 80 characters (found 97)."
- - line:"1020"
  - error: "Line is longer than 80 characters (found 82)."
- - line:"1022"
  - error: "Line is longer than 80 characters (found 105)."
- - line:"1024"
  - error: "Line is longer than 80 characters (found 99)."
- - line:"1025"
  - error: "Line is longer than 80 characters (found 87)."
- - line:"1026"
  - error: "Line is longer than 80 characters (found 92)."
- - line:"1030"

- error: "Line is longer than 80 characters (found 96)."
- - line:"1031"
  - error: "Line is longer than 80 characters (found 90)."
- - line:"1036"
  - error: "Line is longer than 80 characters (found 108)."
- - line:"1045"
  - error: "Line is longer than 80 characters (found 82)."
- - line:"1050"
  - error: "Line is longer than 80 characters (found 81)."
- - line:"1118"
  - error: "Line is longer than 80 characters (found 91)."
- - line:"1154"
  - error: "Line is longer than 80 characters (found 83)."
- - line:"1184"
  - error: "Line is longer than 80 characters (found 96)."
- - line:"1191"
  - error: "Line is longer than 80 characters (found 95)."
- - line:"1206"
  - error: "Line is longer than 80 characters (found 89)."
- - line:"1254"
  - error: "Line is longer than 80 characters (found 82)."
- - line:"1481"
  - error: "Line is longer than 80 characters (found 81)."
- - line:"1640"
  - error: "Line is longer than 80 characters (found 90)."
- - line:"1691"
  - error: "Line is longer than 80 characters (found 89)."

- - line:"1751"
  - error: "Line is longer than 80 characters (found 85)."
- - line:"1774"
  - error: "Line is longer than 80 characters (found 84)."
- - line:"1868"
  - error: "Line is longer than 80 characters (found 91)."
- - line:"1975"
  - error: "Line is longer than 80 characters (found 97)."
- - line:"2011"
  - error: "Line is longer than 80 characters (found 92)."
- - line:"2070"
  - error: "Line is longer than 80 characters (found 81)."
- - line:"2161"
  - error: "Line is longer than 80 characters (found 81)."
- - line:"2171"
  - error: "Line is longer than 80 characters (found 101)."
- - line:"2189"
  - error: "Line is longer than 80 characters (found 81)."
- - line:"2199"
  - error: "Line is longer than 80 characters (found 101)."
- - line:"2294"
  - error: "Line is longer than 80 characters (found 88)."
- - line:"2295"
  - error: "Line is longer than 80 characters (found 92)."
- - line:"2297"
  - error: "Line is longer than 80 characters (found 94)."
- - line:"2301"

- error: "Line is longer than 80 characters (found 85)."
- - line:"2305"
  - error: "Line is longer than 80 characters (found 83)."
- - line:"2309"
  - error: "Line is longer than 80 characters (found 95)."
- - line:"2326"
  - error: "Line is longer than 80 characters (found 90)."
- - line:"2335"
  - error: "Line is longer than 80 characters (found 82)."
- - line:"2338"
  - error: "Line is longer than 80 characters (found 95)."
- - line:"2341"
  - error: "Line is longer than 80 characters (found 89)."
- - line:"2344"
  - error: "Line is longer than 80 characters (found 85)."
- - line:"2371"
  - error: "Line is longer than 80 characters (found 88)."
- - line:"2518"
  - error: "Line is longer than 80 characters (found 83)."
- - line:"2587"
  - error: "Line is longer than 80 characters (found 85)."
- - line:"2668"
  - error: "Line is longer than 80 characters (found 81)."
- - line:"2689"
  - error: "Line is longer than 80 characters (found 81)."
- - line:"2759"
  - error: "Line is longer than 80 characters (found 86)."

- - line:"2779"
  - error: "Line is longer than 80 characters (found 106)."
- - line:"2787"
  - error: "Line is longer than 80 characters (found 89)."
- - line:"2788"
  - error: "Line is longer than 80 characters (found 88)."
- - line:"2799"
  - error: "Line is longer than 80 characters (found 85)."
- - line:"2805"
  - error: "Line is longer than 80 characters (found 84)."
- - line:"2814"
  - error: "Line is longer than 80 characters (found 84)."
- - line:"2817"
  - error: "Line is longer than 80 characters (found 81)."
- - line:"2889"
  - error: "Line is longer than 80 characters (found 93)."
- - line:"2947"
  - error: "Line is longer than 80 characters (found 85)."
- - line:"3025"
  - error: "Line is longer than 80 characters (found 84)."

# 3.3 Bracket position

- - line:"190"
  - error:"{ at column 1 should be on the previous line."
- - line:"456"
  - error:"{ at column 5 should be on the previous line."
- - line: "566"

- error:"{ at column 5 should be on the previous line."
- - line: "573"
  - error:"{ at column 5 should be on the previous line."
- - line:"817"
  - error:"{ at column 5 should be on the previous line."
- - line:"855"
  - error:"{ at column 5 should be on the previous line."
- - line:"929"
  - error:"{ at column 5 should be on the previous line."
- - line:"1084"
  - error: "{ at column 5 should be on the previous line."
- - line:"1100"
  - error:"{ at column 5 should be on the previous line."
- - line:"1151"
  - error:"{ at column 5 should be on the previous line."
- - line:"1583"
  - error:"{ at column 2 should be on the previous line."
- - line:"1697"
  - error:"{ at column 5 should be on the previous line."
- - line:"1844"
  - error:"{ at column 5 should be on the previous line."
- - line:"1912"
  - error:"{ at column 5 should be on the previous line."
- - line:"2310"
  - error: "{ at column 17 should be on the previous line."
- - line:"2383"
  - error:"{ at column 5 should be on the previous line."

- - line:"2398"
  - error: "{ at column 5 should be on the previous line."
- - line:"2529"
  - error:"{ at column 5 should be on the previous line."
- - line:"2535"
  - error:"{ at column 5 should be on the previous line."
- - line:"2657"
  - error:"{ at column 5 should be on the previous line."
- - line:"2860"
  - error:"{ at column 5 should be on the previous line."
- - line:"2963"
  - error:"{ at column 5 should be on the previous line."
- - line:"2977"
  - error:"{ at column 5 should be on the previous line."

# 3.4 Tab character

- - line:"216"
  - error: "Line contains a tab character."
- - line:"222"
  - error: "Line contains a tab character."
- - line:"243"
  - error: "Line contains a tab character."
- - line:"244"
  - error: "Line contains a tab character."
- - line:"245"
  - error: "Line contains a tab character."
- - line:"254"

- error: "Line contains a tab character."
- - line:"255"
  - error: "Line contains a tab character."
- - line:"257"
  - error: "Line contains a tab character."
- - line:"268"
  - error: "Line contains a tab character."
- - line:"269"
  - error: "Line contains a tab character."
- - line:"273"
  - error: "Line contains a tab character."
- - line:"467"
  - error: "Line contains a tab character."
- - line:"472"
  - error: "Line contains a tab character."
- - line:"477"
  - error: "Line contains a tab character."
- - line:"478"
  - error: "Line contains a tab character."
- - line:"479"
  - error: "Line contains a tab character."
- - line:"480"
  - error: "Line contains a tab character."
- - line:"481"
  - error: "Line contains a tab character."
- - line:"482"
  - error: "Line contains a tab character."

- - line:"483"
  - error: "Line contains a tab character."
- - line:"484"
  - error: "Line contains a tab character."
- - line:"489"
  - error: "Line contains a tab character."
- - line:"508"
  - error: "Line contains a tab character."
- - line:"509"
  - error: "Line contains a tab character."
- - line:"513"
  - error: "Line contains a tab character."
- - line:"514"
  - error: "Line contains a tab character."
- - line:"515"
  - error: "Line contains a tab character."
- - line:"516"
  - error: "Line contains a tab character."
- - line:"517"
  - error: "Line contains a tab character."
- - line:"533"
  - error: "Line contains a tab character."
- - line:"534"
  - error: "Line contains a tab character."
- - line: "535"
  - error: "Line contains a tab character."
- - line:"536"

- error: "Line contains a tab character."
- - line:"537"
  - error: "Line contains a tab character."
- - line:"538"
  - error: "Line contains a tab character."
- - line: "540"
  - error: "Line contains a tab character."
- - line: "544"
  - error: "Line contains a tab character."
- - line: "548"
  - error: "Line contains a tab character."
- - line:"552"
  - error: "Line contains a tab character."
- - line:"556"
  - error: "Line contains a tab character."
- - line:"557"
  - error: "Line contains a tab character."
- - line:"558"
  - error: "Line contains a tab character."
- - line:"803"
  - error: "Line contains a tab character."
- - line:"853"
  - error: "Line contains a tab character."
- - line:"854"
  - error: "Line contains a tab character."
- - line:"856"
  - error: "Line contains a tab character."

- - line:"857"
  - error: "Line contains a tab character."
- - line:"858"
  - error: "Line contains a tab character."
- - line:"899"
  - error: "Line contains a tab character."
- - line:"903"
  - error: "Line contains a tab character."
- - line:"904"
  - error: "Line contains a tab character."
- - line:"905"
  - error: "Line contains a tab character."
- - line:"906"
  - error: "Line contains a tab character."
- - line:"907"
  - error: "Line contains a tab character."
- - line:"908"
  - error: "Line contains a tab character."
- - line:"909"
  - error: "Line contains a tab character."
- - line:"910"
  - error: "Line contains a tab character."
- - line:"911"
  - error: "Line contains a tab character."
- - line:"912"
  - error: "Line contains a tab character."
- - line:"1049"

- error: "Line contains a tab character."
- - line:"1050"
  - error: "Line contains a tab character."
- - line:"1052"
  - error: "Line contains a tab character."
- - line:"1053"
  - error: "Line contains a tab character."
- - line:"1054"
  - error: "Line contains a tab character."
- - line:"1055"
  - error: "Line contains a tab character."
- - line:"1056"
  - error: "Line contains a tab character."
- - line:"1057"
  - error: "Line contains a tab character."
- - line:"1058"
  - error: "Line contains a tab character."
- - line:"1059"
  - error: "Line contains a tab character."
- - line:"1075"
  - error: "Line contains a tab character."
- - line:"1153"
  - error: "Line contains a tab character."
- - line:"1362"
  - error: "Line contains a tab character."
- - line:"1363"
  - error: "Line contains a tab character."

- - line:"1365"
  - error: "Line contains a tab character."
- - line:"1366"
  - error: "Line contains a tab character."
- - line:"1367"
  - error: "Line contains a tab character."
- - line:"1386"
  - error: "Line contains a tab character."
- - line:"1537"
  - error: "Line contains a tab character."
- - line:"1538"
  - error: "Line contains a tab character."
- - line:"1539"
  - error: "Line contains a tab character."
- - line:"1548"
  - error: "Line contains a tab character."
- - line:"1581"
  - error: "Line contains a tab character."
- - line:"1582"
  - error: "Line contains a tab character."
- - line:"1583"
  - error: "Line contains a tab character."
- - line:"1584"
  - error: "Line contains a tab character."
- - line:"1585"
  - error: "Line contains a tab character."
- - line:"1586"

- error: "Line contains a tab character."
- - line:"1588"
  - error: "Line contains a tab character."
- - line:"1589"
  - error: "Line contains a tab character."
- - line:"1590"
  - error: "Line contains a tab character."
- - line:"1591"
  - error: "Line contains a tab character."
- - line:"1735"
  - error: "Line contains a tab character."
- - line:"1739"
  - error: "Line contains a tab character."
- - line:"1877"
  - error: "Line contains a tab character."
- - line:"2072"
  - error: "Line contains a tab character."
- - line:"2073"
  - error: "Line contains a tab character."
- - line:"2074"
  - error: "Line contains a tab character."
- - line:"2142"
  - error: "Line contains a tab character."
- - line:"2143"
  - error: "Line contains a tab character."
- - line:"2144"
  - error: "Line contains a tab character."

- - line:"2145"
  - error: "Line contains a tab character."
- - line:"2146"
  - error: "Line contains a tab character."
- - line:"2148"
  - error: "Line contains a tab character."
- - line:"2149"
  - error: "Line contains a tab character."
- - line:"2150"
  - error: "Line contains a tab character."
- - line:"2161"
  - error: "Line contains a tab character."
- - line:"2171"
  - error: "Line contains a tab character."
- - line:"2172"
  - error: "Line contains a tab character."
- - line:"2173"
  - error: "Line contains a tab character."
- - line:"2174"
  - error: "Line contains a tab character."
- - line:"2175"
  - error: "Line contains a tab character."
- - line:"2177"
  - error: "Line contains a tab character."
- - line:"2199"
  - error: "Line contains a tab character."
- - line:"2200"

- error: "Line contains a tab character."
- - line:"2201"
  - error: "Line contains a tab character."
- - line:"2202"
  - error: "Line contains a tab character."
- - line:"2227"
  - error: "Line contains a tab character."
- - line:"2228"
  - error: "Line contains a tab character."
- - line:"2229"
  - error: "Line contains a tab character."
- - line:"2230"
  - error: "Line contains a tab character."
- - line:"2320"
  - error: "Line contains a tab character."
- - line:"2496"
  - error: "Line contains a tab character."
- - line:"2976"
  - error: "Line contains a tab character."
- - line:"2978"
  - error: "Line contains a tab character."
- - line:"2979"
  - error: "Line contains a tab character."
- - line:"2981"
  - error: "Line contains a tab character."
- - line:"2982"
  - error: "Line contains a tab character."

- - line:"2983"
  - error: "Line contains a tab character."
- - line:"2984"
  - error: "Line contains a tab character."
- - line:"2986"
  - error: "Line contains a tab character."
- - line:"2987"
  - error: "Line contains a tab character."
- - line:"2988"
  - error: "Line contains a tab character."
- - line:"2989"
  - error: "Line contains a tab character."
- - line:"2991"
  - error: "Line contains a tab character."
- - line:"2992"
  - error: "Line contains a tab character."
- - line:"2993"
  - error: "Line contains a tab character."
- - line:"2994"
  - error: "Line contains a tab character."
- - line:"2996"
  - error: "Line contains a tab character."
- - line:"2997"
  - error: "Line contains a tab character."
- - line:"2998"
  - error: "Line contains a tab character."
- - line:"3000"

- error: "Line contains a tab character."
- - line:"3001"
  - error: "Line contains a tab character."
- - line:"3002"
  - error: "Line contains a tab character."
- - line:"3004"
  - error: "Line contains a tab character."
- - line:"3005"
  - error: "Line contains a tab character."
- - line:"3006"
  - error: "Line contains a tab character."
- - line:"3008"
  - error: "Line contains a tab character."
- - line:"3009"
  - error: "Line contains a tab character."
- - line:"3010"
  - error: "Line contains a tab character."
- - line:"3012"
  - error: "Line contains a tab character."
- - line:"3013"
  - error: "Line contains a tab character."
- - line:"3014"
  - error: "Line contains a tab character."
- - line:"3016"
  - error: "Line contains a tab character."
- - line:"3017"
  - error: "Line contains a tab character."

- - line:"3018"
  - error: "Line contains a tab character."
- - line:"3021"
  - error: "Line contains a tab character."
- - line:"3022"
  - error: "Line contains a tab character."
- - line:"3023"
  - error: "Line contains a tab character."
- - line:"3024"
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- - line:"3025"
  - error: "Line contains a tab character."
- - line:"3026"
  - error: "Line contains a tab character."
- - line:"3035"
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- - line:"3036"
  - error: "Line contains a tab character."
- - line:"3039"
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- - line:"3040"
  - error: "Line contains a tab character."
- - line:"3044"
  - error: "Line contains a tab character."
- - line:"3045"
  - error: "Line contains a tab character."
- - line:"3047"

- error: "Line contains a tab character."
- - line:"3048"
  - error: "Line contains a tab character."
- - line:"3049"
  - error: "Line contains a tab character."
- - line:"3050"
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- - line:"3051"
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- - line:"3052"
  - error: "Line contains a tab character."
- - line:"3053"
  - error: "Line contains a tab character."
- - line:"3055"
  - error: "Line contains a tab character."
- - line:"3059"
  - error: "Line contains a tab character."
- - line:"3060"
  - error: "Line contains a tab character."
- - line:"3061"
  - error: "Line contains a tab character."
- - line:"3062"
  - error: "Line contains a tab character."
- - line:"3066"
  - error: "Line contains a tab character."
- - line:"3067"
  - error: "Line contains a tab character."

- - line:"3069"
  - error: "Line contains a tab character."
- - line:"3070"
  - error: "Line contains a tab character."
- - line:"3071"
  - error: "Line contains a tab character."
- - line:"3072"
  - error: "Line contains a tab character."
- - line:"3073"
  - error: "Line contains a tab character."
- - line:"3074"
  - error: "Line contains a tab character."
- - line:"3075"
  - error: "Line contains a tab character."
- - line:"3076"
  - error: "Line contains a tab character."
- - line:"3077"
  - error: "Line contains a tab character."
- - line:"3078"
  - error: "Line contains a tab character."
- - line:"3079"
  - error: "Line contains a tab character."
- - line:"3080"
  - error: "Line contains a tab character."
- - line:"3081"
  - error: "Line contains a tab character."
- - line:"3083"

- error: "Line contains a tab character."
- - line:"3088"
  - error: "Line contains a tab character."
- - line:"3089"
  - error: "Line contains a tab character."
- - line:"3091"
  - error: "Line contains a tab character."
- - line:"3092"
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- - line:"3093"
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- - line:"3094"
  - error: "Line contains a tab character."
- - line:"3095"
  - error: "Line contains a tab character."
- - line:"3096"
  - error: "Line contains a tab character."
- - line:"3097"
  - error: "Line contains a tab character."
- - line:"3098"
  - error: "Line contains a tab character."
- - line:"3099"
  - error: "Line contains a tab character."
- - line:"3100"
  - error: "Line contains a tab character."
- - line:"3101"
  - error: "Line contains a tab character."

- - line:"3102"
  - error: "Line contains a tab character."
- - line:"3103"
  - error: "Line contains a tab character."
- - line:"3105"
  - error: "Line contains a tab character."
- - line:"3109"
  - error: "Line contains a tab character."
- - line:"3113"
  - error: "Line contains a tab character."

## 3.5 Missing brackets

- - line:"621"
  - error: "if construct must use {}s."
- - line:"623"
  - error: "if construct must use {}s."
- - line:"639"
  - error: "if construct must use {}s."
- - line:"641"
  - error: "if construct must use {}s."
- - line:"645"
  - error: "if construct must use {}s."
- - line:"697"
  - error: "if construct must use {}s."
- - line:"772"
  - error: "if construct must use {}s."
- - line:"775"

- error: "else construct must use {}s."
- - line:"818"
  - error: "if construct must use {}s."
- - line:"940"
  - error: "if construct must use {}s."
- - line:"942"
  - error: "else construct must use {}s."
- - line:"959"
  - error: "if construct must use {}s."
- - line:"961"
  - error: "else construct must use {}s."
- - line:"971"
  - error: "if construct must use {}s."
- - line:"973"
  - error: "else construct must use {}s."
- - line:"1433"
  - error: "if construct must use {}s."
- - line:"1786"
  - error: "if construct must use {}s."
- - line:"2011"
  - error: "if construct must use {}s."
- - line:"2360"
  - error: "if construct must use {}s."

## 3.6 Naming patterns

- - line:"152"
  - error: "Local variable name l must match the right pattern."
- - line:"510"
  - error: "Local variable name k16\_1 must match the right pattern."
- - line:"511"
  - error: "Local variable name k16\_2 must match the right pattern."
- - line:"227"
  - -error: "Member name  $DEFAULT\_LOAD\_FACTOR$  must match the right pattern."
- - line:"228"
  - error: "Member name *DEFAULT\_CACHE\_SIZE* must match the right pattern."
- - line:"332"
  - error: "Local variable name e must match the right pattern."
- - line:"607"
  - error: "Method name \_getContext must match the right pattern."
- - line:"856"
  - error: "Local variable name pKeys must match the right pattern."
- - line:"933"
  - error: "Local variable name e must match the right pattern."
- - line:"952"
  - error: "Local variable name c must match the right pattern."
- - line:"1101"
  - error: "Local variable name i must match the right pattern."
- - line:"1448"
  - error: "Local variable name e must match the right pattern."
- - line:"1491"

- error: "Local variable name e must match the right pattern."
- - line:"1609"
  - error: "Local variable name e must match the right pattern."
- - line:"69"
  - error: "Member name nCallsInProgress must match the right pattern"
- - line:"115"
  - error: "Parameter name b must match the right pattern."
- - line:"120"
  - error: "Parameter name s must match the right pattern."
- - line:"134"
  - error: "Parameter name b must match the right pattern."
- - line:"275"
  - error: "Method name \_setNext must match the right pattern."
- - line:"279"
  - error: "Method name \_getNext must match the right pattern."
- - line:"283"
  - error: "Method name \_getPKHashCode must match the right pattern."
- - line:"125"
  - -error: "Member name  $RELATIVE\_TIME\_CHECK\_MODE$  must match the right pattern."
- - line:"236"
  - error: "Method name \_qetContext must match the right pattern."
- - line:"425"
  - error: "Local variable name e must match the right pattern."
- - line:"827"
  - error: "Local variable name e must match the right pattern."

- - line:"835"
  - error: "Local variable name c must match the right pattern."
- - line:"893"
  - error: "Parameter name v must match the right pattern."
- - line:"930"
  - error: "Parameter name o must match the right pattern."
- - line:"84"
  - error: "Method name \_refresh\_com\_sun\_ejb\_containers\_read\_only\_bean\_must match the right pattern."
- - line:"92"
  - error: "Method name \_refresh\_All must match the right pattern."
- - line:"52"
  - error: "Method name \_refresh\_com\_sun\_ejb\_containers\_read\_only\_bean\_must match the right pattern."
- - line:"55"
  - error: "Method name \_refresh\_All must match the right pattern."

## 4 Appendix