Politecnico di Milano

Scuola di Ingegneria Industriale e dell'Informazione
M.Sc. in Computer Science and Engineering

GlassFish Server
Code Inspection

Authors:
Angelo Gallarello
Edoardo Longo
Giacomo Locci

December 31, 2015
Version 1.0

Contents

List of Figures

Abstract

This document is the Code Inspection.

1 Assigned Classes

2   Functional Role of Classes

3 List of Issues

3.1 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 Organizaion

12. *Blank lines and optional comments to separate sections*: No issues found.

13. *Line length ¡= 80 characters (when practical)*: No issues found.

14. *If it must exceed 80 characters, then they are ¡= 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 freee 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 memebers (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 beginnig 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.

---

[1]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.

3.2 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 ¡= 80 characters (when practical)*: No issues found.

14. *If it must exceed 80 characters, then they are ¡= 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 freee of duplicates, long methods, big classes, breaking encapsulation, also, coupling and cohesion are adequate*: No issues found.

13

Initialization and Declarations

28. *Correct type of variables and class memebers (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 beginnig 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"* [2]: 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.

---

[2]See http://users.csc.calpoly.edu/~jdalbey/SWE/CodeSmells/bonehead.html.

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

3.3 getEJBObjectStub

Naming Convention

1. *Name meaningfulness*:

2. *One char for loops*:

3. *Classes are nouns in camelCase*:

4. *Interfaces are nouns in camelCase*:

5. *Methods are verbs in camelCase*:

6. *Class variables in camelCase (may be preceded by "_")*:

7. *Constants all UPPERCASE (with words separated by "_")*:

Indention

8. *Three or four spaces*:

9. *No tabs*:

Braces

10. *Consistent bracing style*:

11. *Single statements sorrounded by curly braces*:

File Organizaion

12. *Blank lines and optional comments to separate sections*:

13. *Line length ¡= 80 characters (when practical)*:

14. *If it must exceed 80 characters, then they are ¡= 120*:

Wrapping Lines

15. *Line breaks after comma or operator*:

16. *Higher-level breaks are used*:

17. *New statements aligned with same level expressions*:

Comments

18. *Comments adequately explain the purpose of the code*:

19. *Commented code has reason to exist and contains date*:

Java Source Files

20. *Each java source file contains only one public class or interface*:

21. *The public class is the first class or interface in the file*:

22. *External program interfaces are implemented consistently w.r.t. the javadoc*:

23. *Javadoc is complete*:

Package and Import Statements

24. *If any package statements are needed, they should be the first non-comment statements*:

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

26. *Methods grouped by functionality*:

27. *Code is freee of duplicates, long methods, big classes, breaking encapsulation, also, coupling and cohesion are adequate*:

Initialization and Declarations

28. *Correct type of variables and class memebers (right visibility)*:

29. *Variables are declared in the proper scope*:

30. *Constructors are called when a new object is desired*:

31. *All object references are initialized before use*:

32. *Variables are initialized where they are declared, unless dependent upon a computation*:

33. *Declarations appear at the beginnig of blocks*:

Method Calls

34. *Parameters are presented in the correct order*:

35. *Correct method is being called*:

36. *Method returned variables are used properly*:

Arrays

37. *Required array elements are accessed through the index*:

38. *Indexes have been prevented from going out-of-bounds*:

39. *Constructors are called when a new array item is desired*:

Object Comparison

40. *All objects are compared with "equals"*:

Output Format

41. *Displayed output is free of spelling and grammatical errors*:

42. *Error messages are comprehensive and provide guidance as to how to correct the problem*:

43. *Output is formatted correctly in terms of line stepping and spacing*:

Computation, Comparisons and Assignments

44. *Implementation avoids "brutish programming"* [3]:

45. *Order of computation/evaluation, operator precedence and parenthesizing*:

46. *Liberal use of parenthesis is used to avoid operator precedence problems.*:

47. *All denominators of a division are prevented from being zero*:

48. *Integer arithmetic, especially division, are used appropriately to avoid causing unexpected truncation/rounding*:

49. *Comparison and Boolean operators are correct*:

50. *Throw-catch expressions, and their error condition is actually legitimate*:

51. *Code is free of any implicit type conversions*:

Exceptions

52. *Relevant exceptions are caught*:

53. *Appropriate action are taken for each catch block*:

Flow of control

54. *In a switch statement, all cases are addressed by break or return*:

55. *All switch statements have a default branch*:

56. *All loops are correctly formed, with the appropriate initialization, increment and termination expressions*:

Files

57. *All files are properly declared and opened*:

58. *All files are closed properly, even in the case of an error*:

59. *EOF conditions are detected and handled correctly*:

60. *All file exceptions are caught and dealt with accordingly*:

---

[3]See `http://users.csc.calpoly.edu/~jdalbey/SWE/CodeSmells/bonehead.html`.

4 Other Problems

This section contains formatting problems found in all the class.

4.1 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:"*activeTxCache* 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 rcurly* have incorrect indentation level 24, expected level should be one of the following: 28, 32."

- - line:"1717"
  - error:"*object def rcurly* 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 rcurly* 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 rcurly* 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 rcurly* 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.”

4.2   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)."

4.3   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."

4.4   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."

35

- – 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"
  - – error:"Line contains a tab character."
- – line:"3025"
  - – error:"Line contains a tab character."
- – line:"3026"
  - – error:"Line contains a tab character."
- – line:"3035"
  - – error:"Line contains a tab character."
- – line:"3036"
  - – error:"Line contains a tab character."
- – line:"3039"
  - – error:"Line contains a tab character."
- – 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"
  - error:"Line contains a tab character."

- - line:"3051"
  - error:"Line contains a tab character."

- - 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"
  – error:"Line contains a tab character."

- – line:"3093"
  – error:"Line contains a tab character."

- – 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."

4.5   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.*"

4.6   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 *_getContext* 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."

Appendices