Java Code Review Results

Comparison

Always place constants on the left side of the equals()

/Missile Strike/src/MissileStrike.java:286

/Missile Strike/src/MissileStrike.java:290

/Missile Strike/src/MissileStrike.java:296

/Missile Strike/src/MissileStrike.java:300

/Missile Strike/src/MissileStrike.java:304

/Missile Strike/src/MissileStrike.java:308

/Missile Strike/src/MissileStrike.java:312

Avoid using == and != for java.lang.Object comparisons

/Missile Strike/src/Title.java:43

/Missile Strike/src/Title.java:47

/Missile Strike/src/Title.java:57

Avoid using == and != to compare String objects

/Missile Strike/src/Title.java:43

/Missile Strike/src/Title.java:47

/Missile Strike/src/Title.java:57

Constructors

Always provide 'private' constructors for a utility class

/Missile Strike/src/ChangeMap.java:9

/Missile Strike/src/CreateAircrafts.java:10

/Missile Strike/src/CreateMap.java:5

/Missile Strike/src/Driver.java:5

/Missile Strike/src/Radar.java:6

/Missile Strike/src/StrikeHit.java:6

✅ Avoid calling an overridable method in a constructor

/Missile Strike/src/MissileStrike.java:86

/Missile Strike/src/MissileStrike.java:87

/Missile Strike/src/MissileStrike.java:88

/Missile Strike/src/MissileStrike.java:89

/Missile Strike/src/MissileStrike.java:115

/Missile Strike/src/MissileStrike.java:132

/Missile Strike/src/MissileStrike.java:143

/Missile Strike/src/MissileStrike.java:149

/Missile Strike/src/MissileStrike.java:175

/Missile Strike/src/MissileStrike.java:178

/Missile Strike/src/MissileStrike.java:179

/Missile Strike/src/Title.java:8

/Missile Strike/src/Title.java:9

/Missile Strike/src/Title.java:10

/Missile Strike/src/Title.java:11

/Missile Strike/src/Title.java:20

/Missile Strike/src/Title.java:36

⚠ Do not call non-"final", non-"static", non-"private" methods from constructors

/Missile Strike/src/MissileStrike.java:86

/Missile Strike/src/MissileStrike.java:87

/Missile Strike/src/MissileStrike.java:88

/Missile Strike/src/MissileStrike.java:88

/Missile Strike/src/MissileStrike.java:89

/Missile Strike/src/MissileStrike.java:94

/Missile Strike/src/MissileStrike.java:95

/Missile Strike/src/MissileStrike.java:97

/Missile Strike/src/MissileStrike.java:98

/Missile Strike/src/MissileStrike.java:100

/Missile Strike/src/MissileStrike.java:101

/Missile Strike/src/MissileStrike.java:104

/Missile Strike/src/MissileStrike.java:105

/Missile Strike/src/MissileStrike.java:107

/Missile Strike/src/MissileStrike.java:108
/Missile Strike/src/MissileStrike.java:110
/Missile Strike/src/MissileStrike.java:111
/Missile Strike/src/MissileStrike.java:113
/Missile Strike/src/MissileStrike.java:114
/Missile Strike/src/MissileStrike.java:115
/Missile Strike/src/MissileStrike.java:118
/Missile Strike/src/MissileStrike.java:119
/Missile Strike/src/MissileStrike.java:132
/Missile Strike/src/MissileStrike.java:143
/Missile Strike/src/MissileStrike.java:147
/Missile Strike/src/MissileStrike.java:148
/Missile Strike/src/MissileStrike.java:149
/Missile Strike/src/MissileStrike.java:150
/Missile Strike/src/MissileStrike.java:151
/Missile Strike/src/MissileStrike.java:152
/Missile Strike/src/MissileStrike.java:153
/Missile Strike/src/MissileStrike.java:154
/Missile Strike/src/MissileStrike.java:155
/Missile Strike/src/MissileStrike.java:156
/Missile Strike/src/MissileStrike.java:157
/Missile Strike/src/MissileStrike.java:158
/Missile Strike/src/MissileStrike.java:160
/Missile Strike/src/MissileStrike.java:161
/Missile Strike/src/MissileStrike.java:162
/Missile Strike/src/MissileStrike.java:164
/Missile Strike/src/MissileStrike.java:165
/Missile Strike/src/MissileStrike.java:166
/Missile Strike/src/MissileStrike.java:167
/Missile Strike/src/MissileStrike.java:168
/Missile Strike/src/MissileStrike.java:169
/Missile Strike/src/MissileStrike.java:170

/Missile Strike/src/MissileStrike.java:172

/Missile Strike/src/MissileStrike.java:173

/Missile Strike/src/MissileStrike.java:174

/Missile Strike/src/MissileStrike.java:175

/Missile Strike/src/MissileStrike.java:178

/Missile Strike/src/MissileStrike.java:179

/Missile Strike/src/Title.java:8

/Missile Strike/src/Title.java:9

/Missile Strike/src/Title.java:10

/Missile Strike/src/Title.java:11

/Missile Strike/src/Title.java:13

/Missile Strike/src/Title.java:15

/Missile Strike/src/Title.java:17

/Missile Strike/src/Title.java:18

/Missile Strike/src/Title.java:19

/Missile Strike/src/Title.java:20

/Missile Strike/src/Title.java:22

/Missile Strike/src/Title.java:23

/Missile Strike/src/Title.java:25

/Missile Strike/src/Title.java:26

/Missile Strike/src/Title.java:27

/Missile Strike/src/Title.java:29

/Missile Strike/src/Title.java:30

/Missile Strike/src/Title.java:31

/Missile Strike/src/Title.java:33

/Missile Strike/src/Title.java:34

/Missile Strike/src/Title.java:35

/Missile Strike/src/Title.java:36

Conventions

✅ Always use a package definition

/Missile Strike/src/ChangeMap.java:1

/Missile Strike/src/Clock.java:1

/Missile Strike/src/CreateAircrafts.java:1

/Missile Strike/src/CreateMap.java:1

/Missile Strike/src/Driver.java:1

/Missile Strike/src/MissileStrike.java:1

/Missile Strike/src/Radar.java:1

/Missile Strike/src/ShowMap.java:1

/Missile Strike/src/StrikeHit.java:1

/Missile Strike/src/Title.java:1

✅ Avoid fields and methods with the same name

/Missile Strike/src/MissileStrike.java:55

✅ Avoid incorrect name format for non-final static fields

/Missile Strike/src/MissileStrike.java:47

/Missile Strike/src/MissileStrike.java:48

✅

Avoid method names that are shorter than 5 characters

/Missile Strike/src/MissileStrike.java:199

/Missile Strike/src/MissileStrike.java:233

/Missile Strike/src/Radar.java:8

/Missile Strike/src/ShowMap.java:30

/Missile Strike/src/StrikeHit.java:8

Declaration

Always declare a constant local variable as final

/Missile Strike/src/Clock.java:29

/Missile Strike/src/Clock.java:44

/Missile Strike/src/Clock.java:60

/Missile Strike/src/Clock.java:29

/Missile Strike/src/Clock.java:44

/Missile Strike/src/Clock.java:60

/Missile Strike/src/MissileStrike.java:255

/Missile Strike/src/MissileStrike.java:272

/Missile Strike/src/Radar.java:29

/Missile Strike/src/Radar.java:34

Always declare method parameters final

/Missile Strike/src/ChangeMap.java:11

/Missile Strike/src/Clock.java:17

/Missile Strike/src/CreateAircrafts.java:12

/Missile Strike/src/CreateMap.java:7

/Missile Strike/src/Driver.java:8

/Missile Strike/src/MissileStrike.java:283

/Missile Strike/src/MissileStrike.java:319

/Missile Strike/src/MissileStrike.java:328

/Missile Strike/src/MissileStrike.java:334

/Missile Strike/src/Radar.java:8
/Missile Strike/src/ShowMap.java:30
/Missile Strike/src/ShowMap.java:67

/Missile Strike/src/StrikeHit.java:8

/Missile Strike/src/Title.java:40

Always declare upper case fields as final

/Missile Strike/src/MissileStrike.java:47

/Missile Strike/src/MissileStrike.java:48

Avoid declaring multiple variables in a single statement

/Missile Strike/src/Radar.java:10

Avoid declaring unused parameters

/Missile Strike/src/MissileStrike.java:328

/Missile Strike/src/MissileStrike.java:334

/Missile Strike/src/ShowMap.java:67

Avoid declaring variables in constructors

/Missile Strike/src/MissileStrike.java:77

/Missile Strike/src/Title.java:6

Avoid using explicit string literals, declare constants instead

/Missile Strike/src/ChangeMap.java:18

/Missile Strike/src/ChangeMap.java:29

/Missile Strike/src/Clock.java:20

/Missile Strike/src/Clock.java:20

/Missile Strike/src/Clock.java:25

/Missile Strike/src/Clock.java:26

/Missile Strike/src/Clock.java:27

/Missile Strike/src/Clock.java:29

/Missile Strike/src/Clock.java:29

/Missile Strike/src/Clock.java:40

/Missile Strike/src/Clock.java:41

/Missile Strike/src/Clock.java:42

/Missile Strike/src/Clock.java:44

/Missile Strike/src/Clock.java:44

/Missile Strike/src/Clock.java:56

/Missile Strike/src/Clock.java:57

/Missile Strike/src/Clock.java:58

/Missile Strike/src/Clock.java:60

/Missile Strike/src/Clock.java:60

/Missile Strike/src/MissileStrike.java:87

/Missile Strike/src/MissileStrike.java:92

/Missile Strike/src/MissileStrike.java:93

/Missile Strike/src/MissileStrike.java:96

/Missile Strike/src/MissileStrike.java:99

/Missile Strike/src/MissileStrike.java:102

/Missile Strike/src/MissileStrike.java:103

/Missile Strike/src/MissileStrike.java:106

/Missile Strike/src/MissileStrike.java:109

/Missile Strike/src/MissileStrike.java:120

/Missile Strike/src/MissileStrike.java:121

/Missile Strike/src/MissileStrike.java:122

/Missile Strike/src/MissileStrike.java:123

/Missile Strike/src/MissileStrike.java:124

/Missile Strike/src/MissileStrike.java:125

/Missile Strike/src/MissileStrike.java:126

/Missile Strike/src/MissileStrike.java:127

/Missile Strike/src/MissileStrike.java:128

/Missile Strike/src/MissileStrike.java:129

/Missile Strike/src/MissileStrike.java:130

/Missile Strike/src/MissileStrike.java:131

/Missile Strike/src/MissileStrike.java:133
/Missile Strike/src/MissileStrike.java:134
/Missile Strike/src/MissileStrike.java:135
/Missile Strike/src/MissileStrike.java:136
/Missile Strike/src/MissileStrike.java:137
/Missile Strike/src/MissileStrike.java:138
/Missile Strike/src/MissileStrike.java:139
/Missile Strike/src/MissileStrike.java:140
/Missile Strike/src/MissileStrike.java:141
/Missile Strike/src/MissileStrike.java:142
/Missile Strike/src/MissileStrike.java:164
/Missile Strike/src/MissileStrike.java:171
/Missile Strike/src/MissileStrike.java:184
/Missile Strike/src/MissileStrike.java:191
/Missile Strike/src/MissileStrike.java:204
/Missile Strike/src/MissileStrike.java:221
/Missile Strike/src/MissileStrike.java:238
/Missile Strike/src/MissileStrike.java:255
/Missile Strike/src/MissileStrike.java:255
/Missile Strike/src/MissileStrike.java:272
/Missile Strike/src/MissileStrike.java:272
/Missile Strike/src/MissileStrike.java:286
/Missile Strike/src/MissileStrike.java:290
/Missile Strike/src/MissileStrike.java:294
/Missile Strike/src/MissileStrike.java:294
/Missile Strike/src/MissileStrike.java:296
/Missile Strike/src/MissileStrike.java:300
/Missile Strike/src/MissileStrike.java:304
/Missile Strike/src/MissileStrike.java:308
/Missile Strike/src/MissileStrike.java:312
/Missile Strike/src/Radar.java:21
/Missile Strike/src/Radar.java:21

/Missile Strike/src/Radar.java:21
/Missile Strike/src/Radar.java:25
/Missile Strike/src/Radar.java:25
/Missile Strike/src/Radar.java:25
/Missile Strike/src/Radar.java:30
/Missile Strike/src/Radar.java:30
/Missile Strike/src/Radar.java:35
/Missile Strike/src/Radar.java:35
/Missile Strike/src/ShowMap.java:33
/Missile Strike/src/ShowMap.java:34
/Missile Strike/src/ShowMap.java:35
/Missile Strike/src/Title.java:8
/Missile Strike/src/Title.java:15
/Missile Strike/src/Title.java:16
/Missile Strike/src/Title.java:25
/Missile Strike/src/Title.java:29
/Missile Strike/src/Title.java:33
/Missile Strike/src/Title.java:43

/Missile Strike/src/Title.java:47

/Missile Strike/src/Title.java:49

/Missile Strike/src/Title.java:50

/Missile Strike/src/Title.java:51

/Missile Strike/src/Title.java:52

/Missile Strike/src/Title.java:53

/Missile Strike/src/Title.java:54

/Missile Strike/src/Title.java:55

/Missile Strike/src/Title.java:57

✅ Avoid using numerical literals directly

/Missile Strike/src/Clock.java:15

/Missile Strike/src/Clock.java:23

/Missile Strike/src/Clock.java:38

/Missile Strike/src/Clock.java:54

/Missile Strike/src/MissileStrike.java:47

/Missile Strike/src/MissileStrike.java:48

/Missile Strike/src/MissileStrike.java:54

/Missile Strike/src/MissileStrike.java:65

/Missile Strike/src/MissileStrike.java:66

/Missile Strike/src/MissileStrike.java:209

/Missile Strike/src/MissileStrike.java:226

/Missile Strike/src/MissileStrike.java:243

/Missile Strike/src/Title.java:9

/Missile Strike/src/Title.java:16

Exceptions

✅ Avoid catching a checked exception that is not thrown within the try{} block

/Missile Strike/src/ChangeMap.java:21

/Missile Strike/src/ChangeMap.java:32

⚠ Avoid catching java.lang.Exception

/Missile Strike/src/ChangeMap.java:21

/Missile Strike/src/ChangeMap.java:32

⚠ Avoid empty catch blocks

/Missile Strike/src/ChangeMap.java:21

/Missile Strike/src/ChangeMap.java:32

Initialization

✓ Always initialize all the local variables at declaration

/Missile Strike/src/ChangeMap.java:16

/Missile Strike/src/ChangeMap.java:27

✓ Always initialize static fields

/Missile Strike/src/Clock.java:10

/Missile Strike/src/ShowMap.java:28

/Missile Strike/src/ShowMap.java:29

J2SE

☒ Avoid non final public static fields

/Missile Strike/src/MissileStrike.java:44

/Missile Strike/src/MissileStrike.java:45

/Missile Strike/src/MissileStrike.java:47

/Missile Strike/src/MissileStrike.java:48

/Missile Strike/src/MissileStrike.java:49

/Missile Strike/src/MissileStrike.java:50

/Missile Strike/src/MissileStrike.java:59

/Missile Strike/src/MissileStrike.java:60

/Missile Strike/src/MissileStrike.java:61

/Missile Strike/src/MissileStrike.java:62

/Missile Strike/src/MissileStrike.java:65

/Missile Strike/src/MissileStrike.java:66

/Missile Strike/src/MissileStrike.java:67

/Missile Strike/src/MissileStrike.java:68

/Missile Strike/src/MissileStrike.java:69

/Missile Strike/src/MissileStrike.java:70

/Missile Strike/src/MissileStrike.java:71

/Missile Strike/src/MissileStrike.java:74

/Missile Strike/src/ShowMap.java:28

/Missile Strike/src/ShowMap.java:29

JavaDoc

⚠ Always provide JavaDoc comments for public classes and interfaces

/Missile Strike/src/ChangeMap.java:9

/Missile Strike/src/Clock.java:8

/Missile Strike/src/CreateAircrafts.java:10

/Missile Strike/src/CreateMap.java:5

/Missile Strike/src/Driver.java:5

/Missile Strike/src/MissileStrike.java:42

/Missile Strike/src/Radar.java:6

/Missile Strike/src/ShowMap.java:26

/Missile Strike/src/StrikeHit.java:6

/Missile Strike/src/Title.java:4

⚠ Always provide JavaDoc comments for public fields

/Missile Strike/src/MissileStrike.java:44

/Missile Strike/src/MissileStrike.java:45

/Missile Strike/src/MissileStrike.java:47

/Missile Strike/src/MissileStrike.java:48

/Missile Strike/src/MissileStrike.java:49

/Missile Strike/src/MissileStrike.java:50

/Missile Strike/src/MissileStrike.java:59

/Missile Strike/src/MissileStrike.java:60

/Missile Strike/src/MissileStrike.java:61

/Missile Strike/src/MissileStrike.java:62

/Missile Strike/src/MissileStrike.java:65

/Missile Strike/src/MissileStrike.java:66

/Missile Strike/src/MissileStrike.java:67

/Missile Strike/src/MissileStrike.java:68

/Missile Strike/src/MissileStrike.java:69

/Missile Strike/src/MissileStrike.java:70

/Missile Strike/src/MissileStrike.java:71

/Missile Strike/src/MissileStrike.java:74

/Missile Strike/src/ShowMap.java:28

/Missile Strike/src/ShowMap.java:29

⚠ Always provide JavaDoc comments for public methods

/Missile Strike/src/ChangeMap.java:11

/Missile Strike/src/Clock.java:12

/Missile Strike/src/Clock.java:17

/Missile Strike/src/Clock.java:73

/Missile Strike/src/CreateAircrafts.java:12

/Missile Strike/src/CreateMap.java:7

/Missile Strike/src/Driver.java:8

/Missile Strike/src/MissileStrike.java:188

/Missile Strike/src/MissileStrike.java:199

/Missile Strike/src/MissileStrike.java:216

/Missile Strike/src/MissileStrike.java:233

/Missile Strike/src/MissileStrike.java:249

/Missile Strike/src/MissileStrike.java:283

/Missile Strike/src/MissileStrike.java:319

/Missile Strike/src/MissileStrike.java:328

/Missile Strike/src/MissileStrike.java:334

/Missile Strike/src/Radar.java:8

/Missile Strike/src/ShowMap.java:30

/Missile Strike/src/ShowMap.java:67

/Missile Strike/src/StrikeHit.java:8

/Missile Strike/src/Title.java:40

✅ Always provide a header block comment in each file

/Missile Strike/src/ChangeMap.java:9

/Missile Strike/src/Clock.java:8

/Missile Strike/src/Title.java:4

✅ Avoid TODO comments in production code

/Missile Strike/src/ShowMap.java:68

Portability

⚠ Avoid hard coding \n and \r as line separators

/Missile Strike/src/MissileStrike.java:184

/Missile Strike/src/MissileStrike.java:191

/Missile Strike/src/MissileStrike.java:294

/Missile Strike/src/Title.java:50

/Missile Strike/src/Title.java:51

/Missile Strike/src/Title.java:52

/Missile Strike/src/Title.java:53

/Missile Strike/src/Title.java:54

/Missile Strike/src/Title.java:55

Serialization

✅ Always create a static final serialVersionUID field in serializable classes

/Missile Strike/src/MissileStrike.java:42

/Missile Strike/src/Title.java:4

Speed

✅ **Avoid declaring or assigning variables in a loop that are not dependent on the loop condition**

/Missile Strike/src/CreateAircrafts.java:19

/Missile Strike/src/CreateAircrafts.java:20

/Missile Strike/src/CreateAircrafts.java:28

/Missile Strike/src/CreateAircrafts.java:29

/Missile Strike/src/CreateMap.java:11

Statement

⚠️ **Always check/use the return value of a method invocation**

/Missile Strike/src/MissileStrike.java:95

/Missile Strike/src/MissileStrike.java:98

/Missile Strike/src/MissileStrike.java:101

/Missile Strike/src/MissileStrike.java:105

/Missile Strike/src/MissileStrike.java:108

/Missile Strike/src/MissileStrike.java:111

/Missile Strike/src/MissileStrike.java:113

/Missile Strike/src/MissileStrike.java:114

/Missile Strike/src/MissileStrike.java:153

/Missile Strike/src/MissileStrike.java:154

/Missile Strike/src/MissileStrike.java:155

/Missile Strike/src/MissileStrike.java:156

/Missile Strike/src/MissileStrike.java:157

/Missile Strike/src/MissileStrike.java:170

/Missile Strike/src/ShowMap.java:46

/Missile Strike/src/ShowMap.java:53

/Missile Strike/src/ShowMap.java:60

/Missile Strike/src/Title.java:18

/Missile Strike/src/Title.java:20

/Missile Strike/src/Title.java:27

/Missile Strike/src/Title.java:31

/Missile Strike/src/Title.java:35

/Missile Strike/src/Title.java:36

Always surround if and loop statements with curly braces

/Missile Strike/src/CreateAircrafts.java:26

/Missile Strike/src/CreateMap.java:10

/Missile Strike/src/CreateMap.java:11

/Missile Strike/src/Radar.java:16

/Missile Strike/src/Radar.java:18

/Missile Strike/src/ShowMap.java:39

☒ Avoid invoking "System.exit()"

/Missile Strike/src/MissileStrike.java:298

/Missile Strike/src/Title.java:59

✅ Avoid multiple returns in methods

/Missile Strike/src/StrikeHit.java:8

💡 Avoid using do-while statements

/Missile Strike/src/CreateAircrafts.java:26

✅ Avoid/Enforce usage of "*" in import statements

/Missile Strike/src/ShowMap.java:24

/Missile Strike/src/Title.java:1

/Missile Strike/src/Title.java:2

/Missile Strike/src/Title.java:3

String Handling

📋 Avoid using java.lang.String.equals() for multilingual strings

/Missile Strike/src/MissileStrike.java:286

/Missile Strike/src/MissileStrike.java:290

/Missile Strike/src/MissileStrike.java:296

/Missile Strike/src/MissileStrike.java:300

/Missile Strike/src/MissileStrike.java:304

/Missile Strike/src/MissileStrike.java:308

/Missile Strike/src/MissileStrike.java:312

Translation

⚠ Avoid using java.lang.String + operator

/Missile Strike/src/Clock.java:20

/Missile Strike/src/MissileStrike.java:120

/Missile Strike/src/MissileStrike.java:133

/Missile Strike/src/MissileStrike.java:294

/Missile Strike/src/Radar.java:21

/Missile Strike/src/Radar.java:25

/Missile Strike/src/Radar.java:30

/Missile Strike/src/Radar.java:35

/Missile Strike/src/Title.java:49

UI Specific

⚠ Avoid hard coding font names

/Missile Strike/src/Title.java:16