J. Bloch: "Effective Java 2nd Edition", Addison-Wesley, 2008

Contents

Fo	Foreword							
Pr	Preface							
A	Acknowledgmentsxix							
1	Introd	uction	1					
2	Creati	ng and Destroying Objects	5					
		Consider static factory methods instead of constructors	5					
	Item 2:	Consider a builder when faced with many constructor	1					
	Itam 3:	parameters	1					
	item 3.	constructor or an enum type	7					
	Item 4:	Enforce noninstantiability with a private constructor 1						
		Avoid creating unnecessary objects						
		Eliminate obsolete object references						
		Avoid finalizers						
3	Metho	ds Common to All Objects3	3					
	Item 8:	Obey the general contract when overriding equals 3	3					
	Item 9:							
		override equals4	5					
		: Always override toString						
		: Override clone judiciously						
	Item 12	: Consider implementing Comparable	2					

X CONTENTS

4	Classes and Interfaces	.67
	Item 13: Minimize the accessibility of classes and members	67
	Item 14: In public classes, use accessor methods,	
	not public fields	
	Item 15: Minimize mutability	
	Item 16: Favor composition over inheritance	
	Item 17: Design and document for inheritance or else prohibit it	
	Item 18: Prefer interfaces to abstract classes	
	Item 19: Use interfaces only to define types	
	Item 20: Prefer class hierarchies to tagged classes	
	Item 21: Use function objects to represent strategies	
	item 22. Favor static member classes over nonstatic	. 100
5	Generics	109
	Item 23: Don't use raw types in new code	. 109
	Item 24: Eliminate unchecked warnings	. 116
	Item 25: Prefer lists to arrays	
	Item 26: Favor generic types	
	Item 27: Favor generic methods	
	Item 28: Use bounded wildcards to increase API flexibility	
	Item 29: Consider typesafe heterogeneous containers	. 142
6	Enums and Annotations	147
	Item 30: Use enums instead of int constants	. 147
	Item 31: Use instance fields instead of ordinals	
	Item 32: Use EnumSet instead of bit fields	
	Item 33: Use EnumMap instead of ordinal indexing	. 161
	Item 34: Emulate extensible enums with interfaces	. 165
	Item 35: Prefer annotations to naming patterns	
	Item 36: Consistently use the Override annotation	
	Item 37: Use marker interfaces to define types	. 179
7	Methods	181
	Item 38: Check parameters for validity	. 181
	Item 39: Make defensive copies when needed	
	Item 40: Design method signatures carefully	
	Item 41: Use overloading judiciously	

CONTENTS XI XII CONTENTS

	Item 42: Use varargs judiciously197Item 43: Return empty arrays or collections, not nulls201Item 44: Write doc comments for all exposed API elements203
8	General Programming209
	Item 45: Minimize the scope of local variables 209
	Item 46: Prefer for-each loops to traditional for loops 212
	Item 47: Know and use the libraries
	Item 48: Avoid float and double if exact answers are required
	Item 49: Prefer primitive types to boxed primitives
	Item 50: Avoid strings where other types are more appropriate 224
	Item 51: Beware the performance of string concatenation 227
	Item 52: Refer to objects by their interfaces
	Item 53: Prefer interfaces to reflection
	Item 54: Use native methods judiciously
	Item 55: Optimize judiciously
	Item 56: Adhere to generally accepted naming conventions 237
9	Exceptions
9	Exceptions
9	-
9	Item 57: Use exceptions only for exceptional conditions 241
9	Item 57: Use exceptions only for exceptional conditions
9	Item 57: Use exceptions only for exceptional conditions241Item 58: Use checked exceptions for recoverable conditions and runtime exceptions for programming errors244Item 59: Avoid unnecessary use of checked exceptions246Item 60: Favor the use of standard exceptions248
9	Item 57: Use exceptions only for exceptional conditions241Item 58: Use checked exceptions for recoverable conditions and runtime exceptions for programming errors244Item 59: Avoid unnecessary use of checked exceptions246Item 60: Favor the use of standard exceptions248Item 61: Throw exceptions appropriate to the abstraction250
9	Item 57: Use exceptions only for exceptional conditions241Item 58: Use checked exceptions for recoverable conditions and runtime exceptions for programming errors244Item 59: Avoid unnecessary use of checked exceptions246Item 60: Favor the use of standard exceptions248Item 61: Throw exceptions appropriate to the abstraction250Item 62: Document all exceptions thrown by each method252
9	Item 57: Use exceptions only for exceptional conditions241Item 58: Use checked exceptions for recoverable conditions and runtime exceptions for programming errors244Item 59: Avoid unnecessary use of checked exceptions246Item 60: Favor the use of standard exceptions248Item 61: Throw exceptions appropriate to the abstraction250Item 62: Document all exceptions thrown by each method252Item 63: Include failure-capture information in
9	Item 57: Use exceptions only for exceptional conditions241Item 58: Use checked exceptions for recoverable conditions and runtime exceptions for programming errors244Item 59: Avoid unnecessary use of checked exceptions246Item 60: Favor the use of standard exceptions248Item 61: Throw exceptions appropriate to the abstraction250Item 62: Document all exceptions thrown by each method252Item 63: Include failure-capture information in detail messages254
9	Item 57: Use exceptions only for exceptional conditions241Item 58: Use checked exceptions for recoverable conditions and runtime exceptions for programming errors244Item 59: Avoid unnecessary use of checked exceptions246Item 60: Favor the use of standard exceptions248Item 61: Throw exceptions appropriate to the abstraction250Item 62: Document all exceptions thrown by each method252Item 63: Include failure-capture information in detail messages254Item 64: Strive for failure atomicity256
9	Item 57: Use exceptions only for exceptional conditions241Item 58: Use checked exceptions for recoverable conditions and runtime exceptions for programming errors244Item 59: Avoid unnecessary use of checked exceptions246Item 60: Favor the use of standard exceptions248Item 61: Throw exceptions appropriate to the abstraction250Item 62: Document all exceptions thrown by each method252Item 63: Include failure-capture information in detail messages254
	Item 57: Use exceptions only for exceptional conditions241Item 58: Use checked exceptions for recoverable conditions and runtime exceptions for programming errors244Item 59: Avoid unnecessary use of checked exceptions246Item 60: Favor the use of standard exceptions248Item 61: Throw exceptions appropriate to the abstraction250Item 62: Document all exceptions thrown by each method252Item 63: Include failure-capture information in detail messages254Item 64: Strive for failure atomicity256
	Item 57: Use exceptions only for exceptional conditions241Item 58: Use checked exceptions for recoverable conditions and runtime exceptions for programming errors244Item 59: Avoid unnecessary use of checked exceptions246Item 60: Favor the use of standard exceptions248Item 61: Throw exceptions appropriate to the abstraction250Item 62: Document all exceptions thrown by each method252Item 63: Include failure-capture information in detail messages254Item 64: Strive for failure atomicity256Item 65: Don't ignore exceptions258
	Item 57: Use exceptions only for exceptional conditions241Item 58: Use checked exceptions for recoverable conditions and runtime exceptions for programming errors244Item 59: Avoid unnecessary use of checked exceptions246Item 60: Favor the use of standard exceptions248Item 61: Throw exceptions appropriate to the abstraction250Item 62: Document all exceptions thrown by each method252Item 63: Include failure-capture information in detail messages254Item 64: Strive for failure atomicity256Item 65: Don't ignore exceptions258Concurrency259Item 66: Synchronize access to shared mutable data259Item 67: Avoid excessive synchronization265
	Item 57: Use exceptions only for exceptional conditions241Item 58: Use checked exceptions for recoverable conditions and runtime exceptions for programming errors244Item 59: Avoid unnecessary use of checked exceptions246Item 60: Favor the use of standard exceptions248Item 61: Throw exceptions appropriate to the abstraction250Item 62: Document all exceptions thrown by each method252Item 63: Include failure-capture information in detail messages254Item 64: Strive for failure atomicity256Item 65: Don't ignore exceptions258Concurrency259Item 66: Synchronize access to shared mutable data259

Item 70: Document thread safety	278			
Item 71: Use lazy initialization judiciously				
Item 72: Don't depend on the thread scheduler				
Item 73: Avoid thread groups				
11 Serialization	289			
Item 74: Implement Serializable judiciously	289			
Item 75: Consider using a custom serialized form				
Item 76: Write readObject methods defensively				
Item 77: For instance control, prefer enum types				
to readResolve	308			
Item 78: Consider serialization proxies instead of serialized				
instances	312			
Appendix: Items Corresponding to First Edition 317				
References	321			
Index	327			