Coding Standard Template

Purpose	To guide implementation of Java programs
Program Headers	Begin all programs with a descriptive header.
Header Format	```/*** Program Assignment: the program number Name: name Date: the date you started developing the program Description: purpose and main function ***/```
Listing Contents	Provide a summary of the listing contents.

Contents Example	```/***
	コンテンツリスト:
	    再利用の説明
	    修正の説明
	    コンパイルの説明
	    クラス宣言:
	        -Program1
	        -Calculator
	    実装メソッド
	        -main()
	        -calcSum()
	***/```

Reuse Instructions	• Describe how the program is used. Provide the declaration format, parameter values and types, and parameter limits. • Provide warnings of illegal values, overflow conditions, or other conditions that could potentially result in improper operation.

Reuse Example	```/***
	再利用の説明
	    int printLine(String line)
	    目的:String 型文字列 line を1行で印刷する
	    制約:文字列の長さが LINE_LENGTH 以下であること
	    戻り値:印刷可能であれば1,不可能であれば
	***/```

Identifiers	Use descriptive names for all variables, function names, constants, and other identifiers. Avoid abbreviations or single letter variables.
Identifier Example	```int numberOfStudents 良い例``` ```int x4, j,ftave 悪い例```

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Coding Standard Template (continued)

Comments	• Document the code so that the reader can understand its operation. • Comments should explain both the purpose and behavior of the code. • Comment variable declarations to indicate their purpose.
Good Comment	`If(recordCount > limit) //`すべてのレコードが処理されたか？
Bad Comment	`If(recordCount > limit) //recordCount` が `limit` を超えているかチェックする
Major Sections	Precede major program sections by a block comment that describes the processing that is done in the next section

Example	`/***************************************************`
	このセクションでは、配列「`grades`」の内容を調べ、クラスの平均点を計算する。
	`***************************************************/`

Blank Spaces	• Write programs with sufficient spacing so they do not appear crowded. • Separate every program construct with at least one space.
Indenting	• Indent every level of brace from the previous one. • 中括弧の開始は前の行の末尾に、終了は単独の行に配置し開始の行の先頭と横軸をそろえる。
Indenting Example	```while (missDistance > threshold) { successCode = moveRobot(targetLocation); if (successCode == MOVE_FAILED) { System.out.println("The robot move has failed."); }}```
Capitalization	• UPPER_SNAKE_CASE all defines. • camelCase all other identifiers and reserved words. • Messages being output to the user can be mixed-case so as to make a clean user presentation.
Capitalization Example	`public static final int MAX_SCORE = 100;`