**Coding Standard Template**

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| 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 |

(continued)**Coding Standard Template (continued)**

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| 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; |