

CSc. 110 Code Format and Style Guidelines for Java Programs

Apply the following guidelines to all your code. It is best to apply these style guidelines as you code. Be consistent. Do not mix styles. When making changes, deletions and additions maintain the style and format.

Identification:

Every submitted assignment should identify it's owner:

```
/*
 * For assignments: ID: Number Name
 * Always: Program Name
 *           Program Description
 *           Program Input and Outputs
 */
```

Identifier names

- Names for most variables must be descriptive, unless they are merely loop counters i, j, k, or other housekeeping variables, such as temp for temp, n for number x, y for coordinates.
- Names containing multiple words concatenated should use capitalization for the second and successive words rather than underscores
 - (e.g., "goodVariableName" rather than "bad_variable_name").
- The exception is constants (static final fields), which are uppercase and use underscores to separate the words (e.g. "public static final MAX_LENGTH = 10").
- Class identifiers must begin with a capital. (e.g. "BoxCar" or Calculator")

Coding Style

- White space: In general, both horizontal and vertical *White space* should be minimized, with the following exceptions:
- Add single blank lines to offset sections of code
 - before the first line of a class definition or method definition and after the closing brace for each, and
 - when separating functions as well as major code blocks within functions.
- Insert spaces to assist visual parsing of syntax
 - surrounding assignment, relational and logical operators (and, optionally, around other operators).
- Use parenthesis in expressions not only to ensure proper precedence but also to modularize portions of the expression, especially complex expressions.
 - surrounding assignment, relational and logical operators (and, optionally, around other operators).

Generally, *one statement* per line

- Opening braces, '{', go at the end of the line of code that opens that block (i.e., at the end of the line containing the if, else, switch, for, while, class, etc.). Opening braces on a line by themselves is also acceptable. Mixing these styles is not acceptable however.
- Each closing brace, '}', goes on a line by itself. It is to be vertically aligned with the start of the line

that opens the block.

```
public static void main( ... ) {  
    if ( ... ) {  
        ...  
    } else {  
        ...  
    }  
}
```

- Braces used to create a list of initial values may share the same line to save space.
- Else statements may be put on the same line as the closing brace for the if statement that they are associated with.
- *Indent* either one tab, or with spaces, within functions, `if/else`, `for`, `while`, and similar structures. Select either tabs or spaces. Be consistent never mix the two.
- Comments:
 - Avoid commenting beside the code.
 - Block comments should have a blank line before and after. Block comments should include program name parameters in, process and returned values. This includes programs(standalone or modules) and subprogram (Methods or Functions).

The elements outlined above are consistent with all the code samples in the current textbook 'Building Java Programs'. For a detailed examination of style guidelines and the reasons for using them you can refer to Sun's [Code Conventions for the Java Programming Language](#) document.

Most importantly be consistent within a program.