

Coding Standards

1. Introduction

Every programmer writes code in their own style and when working in groups sometimes certain styles can clash with the look and feel of the overall group's code. In order to make things clean and uniform this document was created to standardize the code.

1.1 Purpose

The main reason in writing this document is to get Team HardMode on the same page when it comes to style. This will improve the readability and overall look of the code.

1.2 Scope

This document is used specifically for Team HardMode. The team agrees to use Java as the main coding language but will be using C# for the final project.

2. Capitalization Conventions

In Java, constants will be all uppercase, class names will be Pascal casing, and methods, fields, parameters, and variable names will be camel casing. In C#, class names and method names will be Pascal casing, and constants, methods, fields, parameters, and variable names will be camel casing.

3. Naming Conventions

The names given to anything will be detailed to what the usage was for to allow better readability of the code. Naming inside for loop for iterations will use i descending the alphabet with j.

4. Spacing Conventions

A newline between every start of a method. A newline after every open and close bracket. A single space after and before an operator.

5. Commenting Conventions

A header comment block starting with “/* and ending with */” that includes the author and program name. At the top of a method, a “/” comment may be placed to specify the method’s purpose. In line comments may be used to clarify steps or place reminders of necessary work that needs to be done.

6. Modularization Conventions

Anytime the same block of code is used repetitively within a program, it should be taken and placed in a method that can be called from. This helps to debug code and reduce code duplication.

7. Secure Coding Conventions

It is important to keep our software secure from attacks from evil input that may crash or manipulate the code. To keep things secure, Team HardMode will follow some precautions.

7.1 Input Validation and Visibility

Class fields should all be private and be accessible by getters and setter methods as necessary. Methods only used for that class should also be private.