Coding Conventions – Group 7

File Organization:

1. Java source file contains a single public class or interface or enum.

2. Each section in file is separated by blank lines and Javadoc comments.

Naming Convention:

1. **Classes:** Camel case format with first letter of each word in uppercase

   E.g. class Player, class GamePlay

2. **Interfaces:** Follows same naming convention as Classes. E.g. interface ArmyAssociation

3. **Methods:** Came lcase format with the first letter in lowercase and first letter of each internal word in uppercase. E.g. getName(), printAll()

4. **Variables:** Variable names are generally short and meaningful; and are written according to the need of program. E.g. int temp, i, j, k, etc.

5. **Constants:** Constant variables are written in all Capitalized letter with words separated by underscore ("_"). E.g. int CONTINENT_VALUE

6. **ENUM:** enums are constants, the name of an Enum type's field is written in uppercase letters. The enum class body can include methods and other fields. E.g,

   public enum Day{

   MONDAY("monday"), TUESDAY("tuesday"), WEDNESDAY("wednesday"), THURSDAY("thursday"), FRIDAY("friday"), SATURDAY("saturday"), SUNDAY("sunday");

   Private String day;

   Day(String day){ this.day = day;}

   Public String getName(){return name;}

   }.

Indentation:

   We have used four spaces (1 tab) as the unit of indentation.

Declarations:

1. Declare only one statement per line. E.g.

   int count; //line1

   int value; // line 2

2. Local variables are initialized at the point of declaration.

Comments:

There are two types of comments used for improving the code readability:

1. **Implementation comments:** It is generally inside of a block describe the code. The formats of implementation comments are **/*.......*/** and **//.**

2. **Document comments:** These comments are generally delimited by **/**. . .*/**

   Javadoc is be used for document comments.

3. **Add comments for long methods.**

4. **Remove commented out code unless necessary.**

Add comments at the beginning of each:

1. **File:** The comment helps in explaining the purpose of the file in the project.

2. **Class:** It is used to describing the purpose of the class and must be written just before its declaration.

3. **Method or function:** A comment before a method helps in explaining what that method does and how it works, as well as what is the purpose of its parameters and what to expect as return value.

4. **Variable declarations:** A comment on the side of a variable describes its purpose. For a class data member, a comment describes the role of the data member in that class.

References:

- **Robert L. Glass: Facts and Fallacies of Software Engineering; Addison Wesley, 2003. ISBN-13: 978-0321117427.**

- **Oracle Corporation. Code Conventions for the Java Programming Language. http://www.oracle.com/technetwork/java/codeconvtoc-136057.html**

- **Google Inc. Google Java Style: https://google.github.io/styleguide/javaguide.html**

- **Joey Paquet, Course notes for COMP6441: Advanced Programming Practices. Concordia University, Fall 2019.**