

RISK
Advance Programming Practice Project (SOEN 6441)
Concordia University - Winter 2019

Team Number 24

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CODING CONVENTIONS

1. Code Layout

1.1 Indentation:

- Tab with four spaces is used for indentation.
- The body of a function/method must be indented with respect to its function header; the body of **for**, **while**, or **switch** statement must be indented with respect to its first line and similarly for **if** statements and other nested structures.

1.2 Blank Lines:

- One blank line is used in the following circumstances:
 - Between function and method definitions.
 - Between major sections of a long and complicated function.
 - Between public, protected, and private sections of a class declaration.
 - Between class declarations.

1.3 Code Structure: Java source files have the following ordering:

- Beginning comments

```
/*
 * <h2>Classname</h2>
 * class description
 *
 * @author
 * @version
 */
```
- Package and Import statements; for example:

```
package Controller;

import java.util.ArrayList;
import java.util.Collections;
import java.util.List;
import java.util.Scanner;
```

1.4 Line Length:

- Avoid lines longer than 80 characters, since they're not handled well by many terminals and tools.
- Following are the principles where you have to break the line if expressions don't fit in a single line.:
 - After comma break the line.
 - Before an operator break the line.

- While using the last line we can align the new line with beginning of expression.

2. Naming Conventions

Naming convention is used to guess the “kind” of name without looking declarations. Generally, ‘Camel Case Style’ is used in naming convention where a single word is formed by multiple words, keeping first letter capital of each word so that it will be easy for user to read it.

2.1 Package

- In Package, names are lowercase without having underscore between the words.

2.2 Class

- Naming convention for Class name starts with capital letter. Interface also follow the same notation of a noun phrase or adjectives.
- For Test classes we use same name when we tested at starting till the end of the test.

2.3 Methods

- For Method names use lowerCamelCase. Eg getRiskPlayer (). JUnit Test Methods also follow the same notation of lowerCamelCase and generally start with the word 'test' succeeded by the tested method name.

2.4 Parameter Names

- For Parameter Names use lowerCamelCase and for public methods avoid one letter parameter name.

2.5 Constants

- Constants are named with all uppercase letters and may include underscores.

3. Comments

Application for comments:

- **Single Line Comments:**

According to the length of code, short comments can be used on a single line.

- **End-Of-Line Comments:**

The // comment delimiter begins a comment that continues to the newline. To comment out partial or complete line it can be used.

- **Documentation Comments:**

Documentation comments cover Java classes, constructors, interfaces, methods and fields. For documentation comment use /**...*/ with one comment per API.

4. Best Practices

4.1 Enums

- Enums are used when there is predefined list of values in which numeric and textual data is not represented.

4.2 Exception Handling

- Exception handling is used when problem arises during the execution of a program.