Advanced Programming Practices

SOEN 6441

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**RISK Game**

**Coding Standards**

**Team 19**

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# INTRODUCTION

Coding conventions are a set of prescriptive rules that pertain to how code is to be written, including:

**File organization:** explains distribution of code with in files and among folders.

**Indentation:** It helps alto to make code readable. It explains how the code has been arranged with proper syntax.

**Comments:** Comments explains about the functionality of class, function or any line of code. It helps in program understandability.

**Declarations:** what kind of syntax is use to declare classes, data structures, variables, functions, etc. to maximize code readability.

**Naming:** It helps us to explain how to name the entities of a program so that it relates well with the project and increases understandability.

# Why is it needed?

Coding Conventions play a very important role in development. It increases the internal quality of the software. It helps when Refactoring needs to be done.

In general, having proper or fixed coding conventions allows to:

# Maximize the productivity

* **Increasing readability**
* **Maximizing understandability**
* **Refactoring the code**
  1. **How can this be achieved?**
* By documenting which explains a set of rules which the entire team or company should follow for every project
* Implementing them in daily and habitual coding rather than last moment corrections.
* Peer review mechanism plays an important role to verify if everyone in a team is following the same conventions.
* API documentation which can be created using automated tools like javadoc, helps to understand the coding style and functionality.

# Coding Conventions and Standards adopted in project

* 1. **Code Layout**
* Approach used - Maximize visibility of the different blocks by having curly braces alone on their line of code.
* Blank lines have been introduced in between the code, to increase the readability.

# Naming Conventions

* Constants have been names with upper case including underscores as separators.
* Classes have been named as per the architecture adopted and under the package.
* All class names start with upper case letter and words are separated using case change.
* The variables used are named per their scope.
* Methods name start with lower case and are followed by parentheses. **Camel case** is followed.
* Attributes start with lower case and words are separated using case change.
* Local variables are also in Camel Case.

# Comments

* Commenting is done as per conventions for Java Doc.
* The purpose is stated at the beginning of every class or method.
* @see is used to link an existing API documentation.
* @param is used in some of the classes to define parameters used in the method.
* @return is used to return a value from a method.

# Indentation

* The code has been indented as per standards to improve code readability.