

# Project 1

## Report

### INF4121/3121

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## 1 *Requirement 1* - Description, analysis and test cases

### 1.1 Description

We are going to review the program Hangman, which derives its name from the game, written in the language Java. The program consists of 5 source files, namely;

- Command.java
- FileReaderWriter.java
- Game.java
- HangmanTets.java
- Players.java

**Command.java** only contains an enumerated type, which contains the possible commands for the program. **FileReaderWriter.java** contains the logic for reading from and writing player objects to file for the scoreboard functionality, as well as a method for sorting and printing the scoreboard. **Game.java** contains the logic for the game itself, which means handling out, user input, checking input and printing the game dialogue. **HangmanTets.java** only initializes and starts the Game.java logic. **Players.java** contains the data structure for a player, as well as methods for fetching name and score.

### 1.2 Analysis of the testable parts of the program

*I.E - what can be tested?*

#### 1.2.1 White-box testing

##### Unit tests

- Players.java
  1. *Player initialization and declaration variables*
- Game.java
- FileReaderWriter.java

##### Integration tests

### 1.2.2 Black-box testing

#### System testing

##### Regression testing

### 1.3 Design of manual system tests

### 1.4 Test cases

## 2 Metrics at project and file level

### 2.1 Metrics at project level

### 2.2 Metrics at file level

## 3 Improvements based on metrics

### 3.1 Metrics at project level that needs improvment

### 3.2 List of improved/refactored code

### 3.3 New metrics at project level vs old

### 3.4 New metrics at file level vs old

## 4 Conclusion

make a couple of remarks about how easy or not it was for you to maintain the code (to modify it in order to improve it). Is there anything that you would have done differently on the ini'al code to make its maintenance easier?