

## **OBJECT ORIENTED PRINCIPLES.**

A02 Part2: Encapsulation, Inheritance, Polymorphism and Abstraction.

On this second part of A02 a Java application covering the topics of encapsulation, inheritance, polymorphism and abstraction is proposed.

- The folder **src** contains the code of the Java application.
  - MyMain.java => This class tests the functionality of A02\_Part2. This class is provided completed, so you must not modify it.
  - o Movie.java => This class models a movie. You must complete this class.
  - O Drama.java => This class models a drama movie. You must complete this class.
  - o PeriodDrama.java => This class models a period drama movie. You must complete this class.
- The folder **javadoc** contains the documentation of the Java application.
  - o MyMain.html => This file contains the description of the class MyMain.java.
  - o Movie.html => This file contains the description of the class Movie.java. Use this file to guide you in completing the code of the file Movie.java.
  - O Drama.html => This file contains the description of the class Drama.java. Use this file to guide you in completing the code of the file Drama.java.
  - PeriodDrama.html => This file contains the description of the class PeriodDrama.java. Use this file to guide you in completing the code of the file PeriodDrama.java.
- The folder **results** contains the expected results of the Java application.
  - o result\_option\_1.txt => This file contains the output obtained from running the lecturer's solution when using <option = 1> in the main method of MyMain.java. That is, when the Java application is used to test the functionality of the class Movie.
  - o result\_option\_2.txt => This file contains the output obtained from running the lecturer's solution when using <option = 2> in the main method of MyMain.java. That is, when the Java application is used to test the functionality of the class Drama.
  - o result\_option\_3.txt => This file contains the output obtained from running the lecturer's solution when using <option = 3> in the main method of MyMain.java. That is, when the Java application is used to test the functionality of the class PeriodDrama.

## **Actions:**

1. Complete the classes Movie.java, Drama.java and PeriodDrama.

The classes must follow the description given by the Javadoc files Movie.html,

Drama.html and PeriodDrama.html.

## **Submission Details:**

- Submit a zip file with the folder 'src' (containing the classes Movie.java, Drama.java and PeriodDrama.java) to Canvas before Friday 8th of November, 1pm.
- Please ensure your code matches the expected output provided in the result folder (see rubric below).

## **Rubric:**

- Movie::Constructor => 1 mark.
- Movie::Get and Set method => 1 mark.
- Movie::revenue() => 2 marks.
- Drama::Constructor => 2 marks.
- Drama::Get and Set method => 1 mark.
- Drama::revenue() => 1 mark.
- PeriodDrama::Constructor => 2 marks.
- PeriodDrama::Get and Set method => 1 mark.
- PeriodDrama::revenue() => 2 marks.
- PeriodDrama::revenue(boolean b) => 2 marks.