Practical session 3

This work should be completed before the next lecture.

Task 1: Team and Player output using JSON

Download from Blackboard the Team and Player classes.

Write an application that creates some `Team` and `Player` objects and then writes them as JSON strings to a file.

Portfolio requirements:

- The NetBeans project for this completed task
- The text file created by the program

Task 2: Team and Player input using JSON

Write an application that reads JSON strings from the file produced in Task 1 and creates some `Team` and `Player` objects. Then, write the objects as JSON strings to a different file.

Portfolio requirements:

- The NetBeans project for this completed task
- The new text file created by the program

Task 3: Deep cloning DVD

Write an application that has the following mutable classes:

- Person
  - First name – with accessor method
  - Last name – with accessor and mutator methods
  - getFullName() – returns first name and last name with a space between
  - Suitable constructor(s)
- DVD
  - Title – with accessor method
  - Lead actor (a Person object) – with accessor and mutator methods
  - Number of stars – with accessor and mutator methods
  - Suitable constructor(s)
  - toString() – returns the DVD title, lead actor's name, and number of stars as a suitably formatted String
- DVD application
  - main() – tests the functionality of DVD, including changing the number of stars in a DVD object

Modify the application so that the main() method invokes a deep clone of a DVD object. Output messages that show the deep clone has created different objects, as shown in the lecture notes.

Portfolio requirements:

- The NetBeans project for this completed task

Task 4: Immutable DVD

Copy the NetBeans project from Task 3.

Modify the DVD class so that its objects are immutable.

Modify the main() method so that it is still possible to change the number of stars for a DVD object.

Portfolio requirements:

- The NetBeans project for this completed task