

Programming Practice 6

CSE1100 - Object Oriented Programming

1 Reading

You are provided with an application that can play songs. A **Song** contains multiple notes that need to be played at certain times in the song. For technical reasons, a song also contains a number of audio channels.

For this assignment you do not have to use or understand the classes in the **internal** and **player** packages.

A song file has the following format:

```
CHANNELS <number of channels>
NOTE <note name> - loudness <loudness between 0.0 and 1.0>
START <start time minute>:<start time seconds>
END <end time minute>:<end time seconds>
NOTE <note name> - loudness <loudness between 0.0 and 1.0>
START <start time minute>:<start time seconds>
END <end time minute>:<end time seconds>
...
```

An example has been provided in **resources**.

Your task is to implement the **readSong** method in **SongReader**. We provide a simple test that should pass given a correct implementation. You are allowed add methods to the **PlayNote**, **Song**, and **SongReader** classes, add more tests, and add new classes in the **sounds** package if you feel this is useful.

1.1 (Optional) Playing the Song

Before following the next instruction, make sure you are in an environment where you do not disturb others (e.g. at home) as headphones are not always recognised. If your test passes, you can play the song using the main method in **PlaySong**.

2 Writing

In the **clothing** package, part of a clothing store application if given. Implement the **readCatalogue** and **writeCatalogue** methods in **ClothingIO**. You are allowed to add methods to any class, add tests, and add classes if you feel this is useful.

You can use any method to read and write as long as a file that is written with **writeCatalogue** can be read again by **readCatalogue**. We provide one test that writes a catalogue and checks if the result of reading the written data is the same as the original.

If you would rather work with a **Reader** or **Writer**, you can convert the given **Input** or **OutputStream** using:

new InputStreamReader(catalogueStream) or **new OutputStreamWriter(catalogueStream)** respectively.