

# Java Object-Oriented Concepts Unit

Lesson 10 Lab 2: DVD Library Version 2

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## Lesson 10 Lab 2: DVD Library Version 2

### Objective:

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The objective of this lab is change the implementation of the first version of DVD Library to take advantage of the new Lambda, Stream, and Aggregate features of Java 8.

### Requirements:

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In this lab, you will add the following features to your program:

1. Find **all movies** released in the **last N years**
2. Find **all the movies** with a given **MPAA rating**
3. Find **all the movies** by a given **director**
  - a. When searching by director, the movies should be sorted into separate data structures by MPAA rating.
4. Find **all the movies** released by a particular **studio**
5. Find the average age of the movies in the collection
6. Find the newest movie in your collection
7. Find the oldest movie in your collection
8. Find the average number of notes associated with movies in your collection

In implementing these features, you must:

1. Create an Interface for the DVDLibrary API (i.e. your DAO) that contains all the methods specified here and in Version 1 of this lab.
2. Create an DVDLibraryImpl class that implements the DVDLibrary interface using Lambdas, Streams, and Aggregates.