Comp 303 Assignment1

Class Movie:

Besides the basic information, there is a field "allformats" of the type ArrayList <String> storing all possible format of movie files. Since we obtain the extension from the path of movies, which is also of type String, storing all formats as string will make it easy to check if the given file is in valid format.

The customs can change custom information either by setting a new pair of information or deleting an existing pair of information.

For all invalid inputs, I used throw exception to inform customs.

Class Watchlist:

I used a linkedlist to store the list of movies. Although it takes up more space than an arraylist, it requires less time on the operation "remove first". For "get_all_languages" and "get_all_publishing_studios", I used arraylist to return the results since "add last" operation takes about the same time for arraylist and linkedlist.

Class Libarary:

It has simply two add functions with Movie and Watchlist as argument. So the customs should create a Movie object or a Watchlist object before adding it to the library.

Object diagram:

ArrayList<Movie>

elementData = Movie

Library

allmovies = ArrayList<Movie>
allwls = ArrayList<Watchlist>

Movie

path = String
format = String
title = String
language = String
publishing_studio = String
validity = boolean
allFormats = ArrayList<String>
custominfo = Map<String, String>

ArrayList<String>

elementData = String

ArrayList<WacthList>

elementData = Watchlist

WatchList

list = LinkedList<Movie>
name = String

LinkedList<Movie>

elementData = Movie

Map<String, String>

key = String
value = String