

ASSIGNMENT 2

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REPORT

First of all my purpose is reading txt files. I created a java class "ReadFile". The class method "Read" returns 2D ArrayList. Its elements are line of txt file. Line elements are occurred strings separated by tab. I read "people" and "films" files.

Then I created classes and subclasses and "public outputString" in main class to solve this problem. I added every output in my "outputString", so it should be public. I added classes and subclasses, fields and constructors. I added my objects in properly ArrayLists.

I read "command.txt" and I started to apply commands.

RATE: I created some variables and I will explain step by step. I made for loops to check User and Film are exist in my 2D ArrayList and I made my userExist and filmExist variables true or false. Because it makes error and I had to do it. I added RATE command in rates 2D ArrayList. The ArrayList contains of RATE commands. Its elements are film title, film ID and film, user ID and rate. I made nested for loop to check repeat "rates" ArrayList itself. If there is no repeat everything is okay, but if there is repeat, I removed rates' last element and make "repeat" true. I made a method "rate" in User class and I create one more constructor. If there is a repeat, the method add outputString "This film was earlier rated.". If "userExist" or "filmExist" is false, the method makes an error message. If everything is okay, the method follows pdf's rule.

ADD: I created 3 for loops to check film is exist, director is exist, and performer is exist. I made a method "add" in FeatureFilms and I added outputString like in pdf's rule.

VIEWFILM: The command consists of 4 basic loops and one Boolean variable "doesntExist". The first for loop checks the command ID in feature films. If the ID in feature films, get director, and performer this film. Then calculate rating average according to rates elements. I create a method "viewFilm" in FeatureFilm and I followed the pdf's rules. And make "doesntExist" false. 2nd, 3rd, and 4th loops are the same logic like 1st. I rounded rates by using String.format method. If doesntExist is true, the code makes an error message. There is a disadvantage in this code. I will talk about later.

LIST USER RATES: I checked user is exist. I created 2 ArrayLists which consist of film title and rating. I make a for loop for "rates" 2D ArrayList. If ArrayList include command ID, film title and rating is added in my created ArrayList. It also check the user voted before. I created a method "showRates" in User and I followed the output rules.

EDIT: I checked "rates" elements contains command ID. If it contains, I make "voted" true. The output rules the same for non-voted and user doesn't exist. Non-existing user cannot vote, so I don't have to check user is exist or not. I created a method "edit" in User and I followed the output rules.

REMOVE: I checked "rates" elements contains command ID. If it contains, I make "voted" true. I got film title and index of rates with for loop. If voted is true, I removed this

ArrayList from “rates” according to index. I created a method “remove” in User and I followed the output rules.

LIST FILM SERIES: I created some ArrayLists variables. I checked TV series object ArrayList (tvSeriesOBJ) is empty. If it is empty it makes an error message. If not, I added title, start date and end date, season ,and episode in these ArrayLists. Every ArrayList must be the same size, so with one for loop I can order tvseries in method. I created a method “listTvSeries” in TVseries and I followed the output rules.

LIST FEATUREFILMS BEFORE: I created some ArrayLists variables. I checked if any feature films before the given date. If there is no, I made an error message in method. I added these ArrayLists title, date, length, and language. The logic of order exactly the same in LIST FILM SERIES method. I created a method “before” in FeatureFilms and I followed the output rules.

LIST FEATUREFILMS AFTER: The logic of code is the same as LIST FEATURE FILMS BEFORE. I changed only “<” to “>=” and method name “after”.

LIST ARTISTS FROM: I created some ArrayLists variables. I added director object, actor object, child actor object stunt performer object in these ArrayLists. I created a method “countryPeople” in Films. In this method I checked these ArrayLists empty or not. Then I followed the output rules.

LIST FILMS BY COUNTRY: I created a ArrayList variable. I added to this list films object if films country equals to command country. I created a method “countryFilm” in Films. In this method I checked this ArrayList empty or not. Then I followed the output rules.

LIST FILMS BY RATE DEGREE: The command consists of 4 basic loops like VIEWFILM. I created 2D ArrayList. 1st for loop I got a feature film object and calculated its sum of rating and average of rating. I rounded average rating by using String.format method. I added this object’s title, release date, rate, and how many users voted this film in an ArrayList. Then I added the ArrayList into the 2D ArrayList. Then I wrote 2nd,3rd and, 4th loop with the same logic. -The only differences is I added start date and end date instead of release date in tv series ArrayList-. I created a method “degree” in Films. By using collentions.sort method, I ordered this 2D arrayList according to average ratings. I used stackoverflow how can I sort these 2D ArrayLists. I am going to put its link on resource section.

At the end of commands I wrote my outputString into the given txt file.

Comments And Feedback

Problem’s purpose is to teach OOP mechanism. I learnt how can I useful Access Modifiers and Inheritance. For example, I only know ArrayList<String> or ArrayList<Integer> but I learnt use ArrayList<Object> in this assignment. Constraints challenged me. I had to rewrite my code to use OOP mechanism. I had written my code by using “public” access modifiers. Now, I know how to use these. Sometimes I got bored when I make the output

like output file. Sometimes my output order and the output is not the same but code is true. Fixing these was very boring.

Resources / References

I used my 1st assignment when I read and write txt files.

<https://stackoverflow.com/questions/2808535/round-a-double-to-2-decimal-places> I used this website to round my double values and make “.” to “,” For example: 9.699 to 9,7.

<https://stackoverflow.com/questions/20480723/how-to-sort-2d-arrayliststring-by-only-the-first-element/20481221> I used this website by sorting 2D ArrayList in LIST FILMS BY RATE DEGREE.