ZMovies

Grade settings: Maximum grade: 100
Disable external file upload, paste and drop external content: Yes
Based on: ZMovies
Run: Yes **Evaluate**: Yes
Automatic grade: Yes

ZMovies is a popular website for reviewing movies. They have planned to provide movie details and ratings through an online platform so they can encourage the youths to watch movies in theatres instead of on an OTT platform. The company hires a software developer to help with their process. You, being the software developer, develop a Java program based on the requirement.

Component Specification: MovieMain Class

Type (Class)	Attributes	Methods
MovieMain	Map<String, Float> movieDetailsMap	Getter and setter methods for the attribute are included in the code skeleton.

Note: Here the movieDetailsMap, holds the Key as movieName and Value as rating.

Requirement 1: Filter the movie record based on the movie name

Type (Class)	Methods	Responsibilities
MovieMain	public float **findMovieRating**(String movieName)	This method accepts movie name as argument. If the movie name is found in the Map, return the movie's rating. Else return -1. ***condition:*** *movieName is case insensitive*

Requirement 2: Filter the movies based on the highest rating

Type (Class)	Methods	Responsibilities
MovieMain	public List<String> **findMoviesWithHighestRating**()	This method filters the movies and returns the list of movie names that satisfy

		below-mentioned condition **Condition :** All the movie whose rating is greater than 4 is considered as the Highest rating and it needs to be added to the list

You are provided with the main method as code template and it is excluded from evaluation.

Note:

- In the Sample Input / Output provided, the highlighted text in bold corresponds to the input given by the user, and the rest of the text represents the output.
- Ensure to follow the object-oriented specifications provided in the question description.
- Ensure to provide the names for the classes, attributes, and methods as specified in the question description.
- Adhere to the code template, if provided.

Sample Input/Output 1:

Enter number of records to be added:

3

Enter the Movie records (Movie Name : Rating):

Spider Man No Way Home:5.0

The Dark Knight Rises:3.0

Inception:2.0

Enter the movie name needs to be searched

Inception

2.0

The names of the movies with the highest rating are:

Spider Man No Way Home

Sample Input/Output 2:

Enter number of records to be added:

2

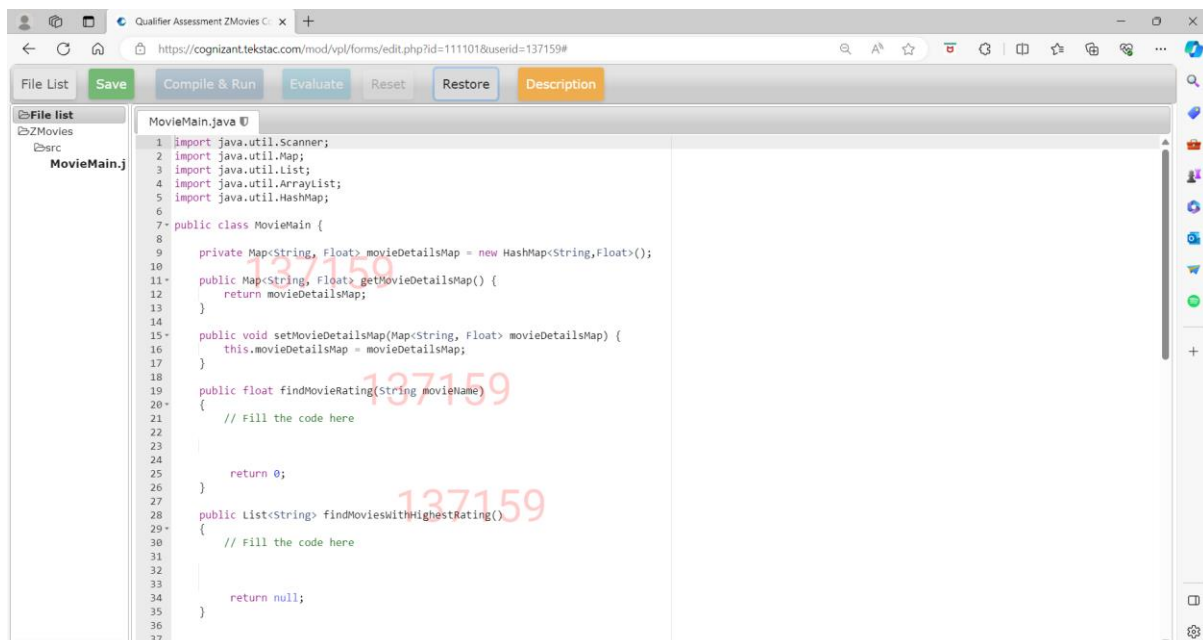Enter the Movie records (Movie Name : Rating):

Interstellar:3.0

Man of Steel:4.0

Enter the movie name needs to be searched

Tenent

Tenent is an invalid movie name

No movies were found with highest rating

File List   Save   Compile & Run   Evaluate   Reset   Restore   Description

File list
ZMovies
  src
    MovieMain.j

MovieMain.java

```java
24
25          return 0;
26      }
27
28      public List<String> findMoviesWithHighestRating()
29      {
30          // Fill the code here
31
32
33
34          return null;
35      }
36
37
38
39      public static void main(String args[])
40      {
41          // Main method is excluded from evaluation.
42          // Please don't change the code
43
44          MovieMain book=new MovieMain();
45          List<String> list1=new ArrayList<String>();
46          Map<String, Float> map=new HashMap<String,Float>();
47          Scanner sc=new Scanner(System.in);
48          System.out.println("Enter number of records to be added:");
49          int n=sc.nextInt();
50          System.out.println("Enter the Movie records (Movie Name : Rating):");
51          String [] bookDetails = new String[n];
52          sc.nextLine();
53          for(int i=0;i<n;i++) {
54              bookDetails[i] = sc.nextLine();
55          }
56          for(int i=0;i<bookDetails.length;i++) {
57              String[] a = bookDetails[i].split(":");
58
59              map.put(a[0], Float.parseFloat(a[1]));
60
```

File List   Save   Compile & Run   Evaluate   Reset   Restore   Description

File list
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MovieMain.java

```java
50          System.out.println("Enter the Movie records (Movie Name : Rating):");
51          String [] bookDetails = new String[n];
52          sc.nextLine();
53          for(int i=0;i<n;i++) {
54              bookDetails[i] = sc.nextLine();
55          }
56          for(int i=0;i<bookDetails.length;i++) {
57              String[] a = bookDetails[i].split(":");
58
59              map.put(a[0], Float.parseFloat(a[1]));
60
61              book.setMovieDetailsMap(map);
62          }
63          System.out.println("Enter the movie name needs to be searched");
64          String search=sc.nextLine();
65          float rating=book.findMovieRating(search);
66          if(rating==-1)
67          {
68              System.out.println(search+" is an invalid movie name");
69          }
70          else
71          {
72              System.out.println(rating);
73          }
74          list1=book.findMoviesWithHighestRating();
75          if(list1!=null && list1.size()>=1) {
76              System.out.println("The names of the movies with the highest rating are:");
77              for(String s:list1)
78              {
79                  System.out.println(s);
80              }
81          }
82          else
83              System.out.println("No movies were found with highest rating");
84      }
85
86  }
```