

# JAVA PROGRAMMING (340)

## REGIONAL – 2019

### Production Portion:

Program 1: Movie Ratings \_\_\_\_\_ (255 points)

***TOTAL POINTS*** \_\_\_\_\_ (255 points)

**Failure to adhere to any of the following rules will result in disqualification:**

- 1. Contestant must hand in this test booklet and all printouts. Failure to do so will result in disqualification.**
- 2. No equipment, supplies, or materials other than those specified for this event are allowed in the testing area. No previous BPA tests and/or sample tests or facsimile (handwritten, photocopied, or keyed) are allowed in the testing area.**
- 3. Electronic devices will be monitored according to ACT standards.**

No more than ten (10) minutes orientation  
No more than ninety (90) minutes testing time  
No more than ten (10) minutes wrap-up

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*Workplace Skills Assessment Program* competition.

You will have ninety (90) minutes to complete your work.

Your name and/or school name should *not* appear on work you submit for grading.

1. Create a folder on the flash drive provided using your contestant number as the name of the folder.
2. Copy your entire solution/project into this folder.
3. Submit your entire solution/project so that the graders may open your project to review the source code.
4. Ensure that the files required to run your program are present and will execute on the flash drive provided.

\*Note that the flash drive letter may *not* be the same when the program is graded as it was when you created the program.

\*It is recommended that you use relative paths rather than absolute paths to ensure that the program will run regardless of the flash drive letter.

The graders will *not* compile or alter your source code to correct for this.  
Submissions that do *not* contain source code will *not* be graded.

**Assumptions to make when taking this assessment:**

- The user will not enter negative numbers as input.
- Movie reviews are rated from 1 to 100.

**Development Standards:**

- Your Code must use a consistent variable naming convention.
- All subroutines (if any), functions (if any), and methods (if any) must be documented with comments explaining the purpose of the method, the input parameters (if any), and the output (if any).
- If you create a class, then you must use Javadoc comments.

## Movie Ratings

You have been selected to create a program that will aggregate a set of movie ratings. Your program will allow the user to enter in how many movies they wish to review and then will compute the overall movie rating as a weighted average of ratings from a popular movie review website, ratings given by a private focus group, and movie critic ratings that your program will generate at random.

The overall movie rating should be computed as a weighted average. Count the average website rating as 20% of the overall rating, the average focus group rating as 30% of the overall rating, and the average movie critic rating as 50% of the overall rating.

### Input:

The program should accept 3 ratings from a movie review website (as ints), 2 ratings from a focus group (as doubles), and 1 average rating from professional movie critics (as a double) and randomly generated.

### Output:

The program should output the number of movies you are reviewing, the average website rating, the average focus group rating, the average movie critic rating, and the overall movie rating (as doubles and formatting to 2 decimal places).

### Sample Run #1:

How many movies are you rating?

1

Please enter ratings from the movie review website for movie #1

75

99

10

Please enter ratings from the focus group for movie #1

84.5

92.3

Ratings for movie #1

Average website rating: 61.33

Average focus group rating: 88.40

Average movie critic rating: 91.60

Overall movie rating: 84.59

### Sample Run #2

How many movies are you rating?

One

Incorrect data has been entered

**Sample Run #3**

How many movies are you rating?

3

Please enter ratings from the movie review website for movie #1

75

99

45.7

Incorrect data has been entered

**Requirements:**

1. You must create an application with the main class named *Movies*.
2. Your contestant number must appear as a comment at the top of the main source code file.
3. If incorrect data is entered, then the program should display an appropriate message and exit.
4. The program will perform the required tasks correctly for however many movies are indicated by the user.
5. The program will display the output like the example above.

Your application will be graded on the following criteria:

**Solution and Project**

- The project is present on the flash drive \_\_\_\_\_ 10 points
- The projects main class is named **Movie** \_\_\_\_\_ 10 points

**Program Execution**

- The program runs from the USB flash drive \_\_\_\_\_ 15 points

If the program does *not* execute, then the remaining items in this section receive a score of zero.

- The program displays an error message if the user enters invalid data \_\_\_\_\_ 20 points
- The program calculates the correct percentages for all averages \_\_\_\_\_ 10 points
- The program displays the correct movie number during input \_\_\_\_\_ 10 points
- The program displays the correct movie number during output \_\_\_\_\_ 10 points
- The program displays the average website rating to two decimals \_\_\_\_\_ 20 points
- The program displays the average focus group rating to two decimals \_\_\_\_\_ 20 points
- The program displays the average movie critic rating to two decimals \_\_\_\_\_ 20 points
- The program calculates the correct weighted percentage for each category \_\_\_\_\_ 30 points
- The program uses the Random method to originate the critic rating \_\_\_\_\_ 30 points

**Source Code Review**

- The source code is properly commented
  - A comment containing the contestant number is present \_\_\_\_\_ 10 points
- Methods and code sections are commented \_\_\_\_\_ 20 points
- Code uses try... catch for exception handling \_\_\_\_\_ 10 points
- Code uses a consistent variable naming convention \_\_\_\_\_ 10 points

**Total Points = \_\_\_\_\_ / 255 points**