

CSC 306 HOMEWORK 1

INPUT AND OUTPUT IN C++

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1. THE ASSIGNMENT

This homework assignment will help you get acquainted with C++ programming. It focuses on input and output.

Imagine that you are going to be running a website that allows people to rate their culinary experiences at restaurants they have visited. You have collected some data and stored in a restaurant ratings file.

The format of the ratings file is as follows. There is a line of data for each restaurant. The line starts with the name of the restaurant, followed by a list of comma-separated numeric ratings. Each numeric rating is one of the integers 0, 1, 2, 3, 4, 5, representing the number of stars assigned to the restaurant by a reviewer.

Here is a sample input file. In general, you may assume that input file will have any number of lines of data, and that there will always be at least one line of data.

```
Vittacelli's 1, 3, 5, 5, 2
House of Pancakes 4, 0, 1
Burger Joint 5
Good Eating 5, 5, 3
The Glutton's Paradise 4, 5, 5, 3
```

When run, your program will ask the user to enter the name of the file that contains the ratings. The program will then process the file and print a ratings summary. The output will be a series of lines, with each line containing the name of restaurant, the average rating for the restaurant, and the number of ratings.

Here is the sample output for the above input file. The output from your program should match the sample output as closely as possible.

```
Enter name of the restaurant ratings file: ratings.txt
```

```
Here is the ratings summary:
```

```
Vittacelli's : 3.2 stars (5 ratings)
House of Pancakes : 1.66667 stars (3 ratings)
Burger Joint : 5 stars (1 ratings)
Good Eating : 4.33333 stars (3 ratings)
The Glutton's Paradise : 4.25 stars (4 ratings)
```

This is due Wednesday of Week 3, at midnight.

2. GENERAL INFORMATION ON PROJECT AND HOMEWORK SUBMISSIONS

All projects should be submitted via email, *via your North Central Email account*, by midnight on the day due. Submissions through other e-mail accounts may be weeded out by a spam filter.

All code must be appropriately documented and commented. In addition, your code must be formatted for readability. Avoid excessively long lines of code that will wrap or be cut off when the code is printed.