

CIS 200 Project 1 (30 points)

Due Wednesday, August 31 by midnight

Description

This assignment has three parts. First, you will print the ASCII art of your first name. Then, you will calculate the user's overall grade in a class based on their exam and project scores. Finally, you will determine how to equally divide a pizza among groups of different sizes. Here is a sample run of the program:

```
C:\Windows\system32\cmd.exe
```

```
U:\cis200\fall11\proj1>java Proj1  
    *   *       *   *           * *****  
    *   *       *   *           *   *  
    *   *       *   *           *   *  
    *   *       *   *           *   *  
    *   *       *   *           * *****  
    *   *       *   *           *   *  
    *   *       *   *           *   *  
*   *   *   *   *   *           *   *  
*   *   *   *   *   *           *   *  
***          ***      ***** * *****  
  
Enter the weight of the exams (e.g., 55 for 55%): 65  
Enter the weight of the projects: 35  
Enter your exam average (e.g., 78 for 78%): 70  
Enter your project average: 90  
  
Overall average: 77.00%  
  
How many slices of pizza? 14  
  
For three people, each person can have 4 slices with 2 leftover  
For four people, each person can have 3 slices with 2 leftover  
For five people, each person can have 2 slices with 4 leftover  
  
U:\cis200\fall11\proj1>
```

Requirements

This program should contain a single class (called `Proj1`) with a `main` method. Your program must compile (by command-line) with the statement:

```
javac Proj1.java
```

It must then run with the command:

```
java Proj1
```

Hints and Other Requirements

Your ASCII art figure must be at least 10 lines tall, and it should contain your full first name.

Another problem you may run into is with rounding. Your final grade should be rounded to the nearest two decimals. Here is an example of how you will do that:

```
//Do this at the very top of the file
import java.text.*;

//Do this once at the beginning of main
DecimalFormat df = new DecimalFormat("#0.00");

//Suppose you want to round val to the nearest two decimal places
double val = 3.278514;
System.out.println(df.format(val));
```

This will print out 3.28 (val rounded to two decimal places). You can round any value to two decimal places by putting that value in the line above instead of “val”.

Here are some additional requirements/tips:

- Your ASCII art should be at least 10 lines tall. This will likely mean that you will use 10 or more print statements to print it out.
- The output of your program should look EXACTLY like the example (except, of course, the exact ASCII figure and different values if the user enters different numbers). This includes spacing, capitalization, spelling, etc.
- Develop your program piece by piece. First, get your ASCII name to print out. Next, get the grade calculator working. Finally, work on dividing the pizza slices. Test your program several times before moving on to the next piece.

Documentation

You should put a description of the project at the top of the file. Please use this template:

```
/**
 * (description of the project)
 *
 * Author: (your name)
 * Project: (which number project this is)
 */
```

Submission

To submit your project, first create a folder called `proj1`, and move your `Proj1.java` file into that folder. Then, right-click on that folder and select “Send To->Compressed (zipped) folder”. This will create the file `proj1.zip`.

Go to the “Submit Projects Here” folder on K-State Online. Select your lab time and upload the `proj1.zip` file. **Put your name and Project 1 in the description box.**

Grading

Projects that do not compile will receive a grade of 0. Projects that do compile will be graded according to the following rubric:

Requirement	Points
Input/output exactly match example	2
ASCII art of your first name on at least 10 lines	7
Get project and exam weights/scores from user	2
Calculate and print overall average	7
Get number of pizza slices from user	2
Calculate and print how to evenly divide the pizza among 3, 4, and 5 people	8
Documentation	1
Submission (zip file with <code>Proj1.java</code> , submission link)	1
Total	30