**CIS 200: Project 1 (20 points)**
**Due Friday, Jan 29th by 11:59pm**

***Reminder: Programs submitted after the due date/time will be penalized 10% for each day the project is late (not accepted after 3 days, i.e. 11:59, Mon, Feb 1st)***

**Assignment Description:** This assignment has **two** parts.

First, create a file called ***Proj1_Part1.java*** then develop a java application that meets the following program description:

- An appliance store is offering 3% (0.03) financing for 12 months on any purchase
- Use ***constants*** for the finance rate and number of months
- Have the user enter the item purchased and the purchase price
- Format ***ALL*** numeric output ***with two decimals***, tell the user how much the monthly payment will be (using the formula below) and the total amount to be paid. Lastly, display the amount 'extra' paid.

**monthly payment = ( (purchase price* financing rate) + purchase price) / months**

**Here is a sample run of Part 1** (due to rounding, you might be off a cent or two):

```
C:\Users\dlang1\Desktop>java Proj1_Part1
Enter the item to be purchased: Snowblower
Enter the amount of the purchase: 425.56
Your monthly payment is $36.53
Your total payment is $438.33
Amount paid in financing is $12.77
```

Second, create a file called ***Proj1_Part2.java*** then develop a java application that meets the following program description:

- Have the user enter in the brand, model, and cost (a double) of the computer they wish to purchase
- Given a Kansas sales tax rate of ***6.15%***, figure out how much tax is owed in addition to the cost of the computer. **Declare the tax rate as a *constant*.**
- Display the computer brand, model, sales tax, and total price, each on a separate line as shown below. Format ***ALL*** numeric output with two decimals.

**Here is a sample run of Part 2** (due to rounding, you might be off a cent or two):

```
C:\Users\dlang1\Desktop\temp>java Proj1_Part2
What brand of computer do you wish to purchase? Apple
Which model? Macbook Pro
Enter the cost of the computer: 1299

Brand: Apple
Model: Macbook Pro
Sales tax: $79.89
Total Cost: $1,378.89
```

**FYI:** The comma in the total cost is ***NOT*** required. To get the ',' in your numeric output, use "#,000.00" as your format specifier using DecimalFormat

**Requirements:**

- To simplify grading of 135+ programs, **the output of your program must look EXACTLY like the examples shown.** This includes spacing, line feeds, spelling, capitalization, etc. This will be a requirement throughout the course…yes, I am stifling "*creativity*" but often designers will design the user interface and your job, as a programmer, is to create the user interface ***exactly*** as designed.

This project should contain **TWO** files (called ***`Proj1_Part1`*** `and` ***`Proj1_Part2`***), each containing a single class and a `main` method. Your program must compile (by command-line) with the statement:

```
javac Proj1_Part1.java     (or Proj1_Part2.java)
```

It must then run with the command:

```
java Proj1_Part1           (or Proj1_Part2)
```

**Documentation:**

At the top of *EACH* class, add the following comment block, filling in the needed information:

```
/**
 * <Full Filename>
*  <Student Name / Lab Section Day/Time / GTA's Name>
 *
 *  <Description of the project – i.e. What does the program do?>
*/
```

**Submission** – ***read these instructions carefully or you may lose points***

To submit your project, first create a folder called ***`proj1`*** and copy or move both of your *.java* files (**`Proj1_Part1.java`** `and` **`Proj1_Part2.java`**) into that folder. Then, right-click on that folder and select "***`Send To → Compressed (zipped) folder`***". This will create the file ***`proj1.zip`***

Log-in to Canvas and upload your ***`proj1.zip`*** file. **Only a .zip file will be accepted for this assignment in Canvas. Put your full name and Project 1 in the comments box.**

*Important*: It is the ***student's responsibility*** to verify that the ***correct*** file is ***properly*** submitted. If you don't properly submit the *correct* file, it will not be accepted after the 3 day late period. No exceptions.

**Grading:**

**Programs that do not compile will receive a grade of 0, so make sure you submit the *correct* file that *properly compiles*.** (For this project only, since two separate programs are required, you can get partial points if one compiles and runs correctly but the other does not). Programs that *do* compile will be graded according to the following rubric:

| Requirement | Points |
|---|---|
| ***Proj1_Part1.java*** | **-10-** |
| Documentation / Proper Submission with full name & project # in Comment box. Correct Filename (Proj1_Part1.java) | **1** |
| Input/output exactly match example (Format all numeric output w/2 decimals) | **3** |
| Get amount properly from user | **2** |
| Properly declare CONSTANT (all uppercase) for *Rate* and *Number of Months* | **2** |
| Correct Output | **2** |
| | |
| ***Proj1_Part2.java*** | **-10-** |
| Documentation / Proper Submission with full name & project # in Comment box. Correct File (***Proj1_Part2.java***) | **1** |
| Input/output exactly match example (Format all numeric output w/2 decimals) | **3** |
| Get all required input properly from user | **2** |
| Properly declare *Tax Rate* as a CONSTANT (all uppercase) | **1** |
| Correct Output | **3** |
| **Minus Late Penalty (10% per day)** | |
| **Total** | **20** |