CS101- Algorithms and Programming I

Lab 02

Lab Objectives: Input and output, formatted output.

For all labs in CS 101, your solutions must conform to the CS101 style guidelines (rules!)

1. Create a project, Lab02_Q1 in your Lab02 folder. Write a Java program that inputs a value from the user (shown in blue) and calculates and displays output according to the sample run below. The value input by the user may change.

   Sample Run:
   ```
   Enter measurement in millimeters: 129.75
   Micrometers    :       129750.000
   Millimeters    :          129.750
   Centimeters    :           12.975
   Meters         :            0.130
   ```

2. Create a project, Lab02_Q2 in your Lab02 folder. Write a Java program that inputs the monthly salary from the user (shown in blue) and calculates and displays the table below. The percentages shown indicate the recommended maximum percent of the salary each budget item should be. Use the percentages shown as constants; changing the constant value only should update the results. You should not repeat the space character in the output.

   Sample Run:
   ```
   Enter monthly salary: 9500
   ----------------------------------------------
   |Housing               %30           2850.00 |
   |Food                  %15           1425.00 |
   |Transport             %20           1900.00 |
   |Savings               %18           1710.00 |
   |                      TOTAL         7885.00 |
   |                      REMAINING     1615.00 |
   ----------------------------------------------
   ```

3. Create a project, Lab02_Q3 in your Lab02 folder. Write a Java program that inputs a date and time in the given format and outputs in the format shown below.

   Sample Run:
   ```
   Enter date and time: 2020/May/21,Friday-09:30
   Friday May 21,2020 30 minutes past 09
   ```