

MSiA 422 – Fall 2019

Homework # 4

DUE: 11/08/2019

Exercise 1 - Currency convertor

Write a java program that:

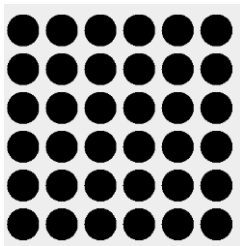
- Ask the user to type the price for one dollar in Japanese yen.
- The program will allow the user to convert from dollars to yen and vice versa.
- At any point of time the user can request to change the conversion rate.
- The program stops after a sentinel character entry.

Insure user entry validation at all time. No Crashes or unexpected results.

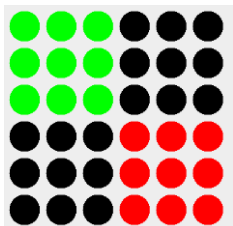
Exercise 2

A sample java code that plots a $n \times n$ small circles with black color on a java frame window is located at FunPlot.java file. Where n is a user entered even number

See result for n=6:



Modify the code to display different colors on each quadrant as shown below.



Exercise 3 - Data Analysis

A sample text file that holds employees data is attached with the homework. Each line has the following data elements (separated by commas):

Name, DOB, Salary

Write a Java based code to answer the following questions:

- How many Employees exist in the file?
- Who has the highest salary?
- What is the average salary?
- How many employees make above the average?
- What is the average **age** of employees?

Write to an output file the employee names **sorted** according to their salary? (Make sure to well format the output file)

Grading is based on:

- Output accuracy
- Show user clear messages
- Always user input validation
- Avoid Errors/crashes
- Always add good comments
- The use of Arrays or Array Lists Object
- The use of short methods