Lab 05

**Rules:**

* Always create a separate Java file for each program you write in the lab (e.g., problem1.java, problem2.java, etc.)
* Do not forget to take your work with you when you leave the lab by either copying your work files to your own USB flash disk, or by e-mailing them to yourselves.

1. Write a Java program that does the following:
2. Create a Java file with the name **problem1.java**.
3. Prompt the user to enter a numeric score.
4. Print the letter grade that corresponds to the score entered by the user.

Above 90: A

80 to 89: B

70 to 79: C

60 to 69: D

Below 60: F

Sample run of the program:

Enter a numeric score: 97

A

1. Write a Java program that does the following:
2. Create a Java file with the name **problem2.java**.
3. Prompt the user to enter three angle values in degrees.
4. Checks and prints whether the three given angles a form triangle. If the three angles add up to 180, then they form a triangle.
5. If the three given angles form a triangle, then the program determines and prints whether the triangle is equilateral, right, or neither.
6. An equilateral triangle has three 60-degree angles.
7. A right triangle has one 90-degree angle.

Sample run of the program:

Enter an angle in degrees: 45

Enter an angle in degrees: 45

Enter an angle in degrees: 90

Can form a triangle from these angles.

The triangle is a right triangle.

Sample run of the program:

Enter an angle in degrees: 50

Enter an angle in degrees: 70

Enter an angle in degrees: 60

Can form a triangle from these angles.

The triangle is neither equilateral nor right.

Sample run of the program:

Enter an angle in degrees: 10

Enter an angle in degrees: 20

Enter an angle in degrees: 30

Cannot form a triangle from these angles.

1. Write a Java program that does the following:
2. Create a Java file with the name **problem3.java**.
3. Prompt the user for two integers.
4. If the sum of the numbers is greater than 100, then print **True**, else print **False**.

Sample run of the program:

Enter two numbers: 45 55

True

Sample run of the program:

Enter two numbers: 102 –3

False

1. Write a Java program that does the following:
2. Create a Java file with the name **problem4.java**.
3. Utilizing a while loop, prompt the user for a name until the user enters END.
4. Print the name right after each time the user enters the name.
5. At the end of the program, print **I am done**.

Sample run of the program:

Enter a name and I will repeat it back to you.

Type END when you wish to quit.

> Alex

Alex

> Kent

Kent

> Xiuyi

Xiuyi

> END

I am done

1. Write a Java program that does the following:
2. Create a Java file with the name **problem5.java**.
3. Prompt the user for an integer until the user enters a negative integer.
4. For each non-negative integer entered by the user, print **Even** if the user entered an even integer, and print **Odd** otherwise.
5. After the user enters a negative integer, print **Goodbye**.

Sample run of the program:

Enter a number and I will tell you if it is even or odd.

Enter a negative number to stop:

> 2

Even

> 3

Odd

> 7

Odd

> –2

Goodbye

Lab Work Submission:

* You can continue to work on this lab after our lab class, on your own, at home.
* Submit your lab work via Blackboard on or before: **Wednesday, September 20, 2023, 11:59pm**.
* The only accepted submission method!
* Once you submit your assignment you will not be able to resubmit it!
* Make absolutely sure the Java files you want to submit are the Java files you want graded.
* You will not be able to submit your lab work under any circumstances once **Lab05** disappears at **12:00 a.m.** on **Thursday, September 21, 2023**.
* There will be **NO** exceptions to these rules!
* To submit your lab work, upload the 5 Java files (**with .java extension**) you did for this lab to the **Lab05** assignment in the **Labs** tab in your Lab section’s presence in Blackboard.
* Then, make sure you click the **Submit** button to submit your lab work.