	Department of Computer Engineering Faculty of Engineering University of Sri Jayewardenepura
Course	Programming Quest
Course Code	CO2210
Deadline	On or before 23:55H on 23rd November 2021
Assignment Number	08
Total Marks	100
Objectives	● Get familiar JAVA programming language based development. ● Use Object Oriented Programming techniques in simulation ● Use good coding practices.

General Instructions

- This is an individual assignment.
- This assignment should be completed using JAVA programming language.
- Use the standard header files in the assignment.
- If external libraries are used, please mention the resource location. However, it is highly recommended to use inbuilt libraries for this task.
- Submit all source code files (*.java) in a zip file. The zip file should be named in the yy_ENG_abc.zip format. (for example, if the index number is 19/ENG/777, the zip file name should be 19_ENG_777.zip.
- Late submission are accepted upto 72 hours from the original deadline but marks will be deducted.
- Submit the zip file to CO2210 Programming Quest LMS page on or before the deadline mentioned above. If the LMS course page is not working, then the zip file can be emailed to randima@sjp.ac.lk .

Quest 08 - Build a simple Calculator with GUI

Develop a simple calculator application with a Graphical User Interface.

Your application should support the following arithmetic operation.

1. Multiplication (*)
2. Division (/)
3. Addition (+)
4. Subtraction (-)
5. Reminder (%)

In addition to the arithmetic operation, following trigonometric function values should be calculated. Trigonometric function accepts radiance value. In general, values are entered in degrees by the calculator and it is internally transffered to radiance. If the inverse trigonometric function is used, the answer should be kept in degrees.
Trigonoetric functions supported by the calculator:

1. Sinusoidal
2. Co-sinusoidal
3. Tangent
4. Inverse sinusoidal
5. Inverse co-sinusoidal
6. Co-tangent

Users should be able to insert brackets to create groups or clarify the order that operations are to be done.

A display area should indicate the numbers and operations provided by the user by clicking the buttons in the calculator interface and it is not allowed to enter numbers by typing via keyboard.

The programme should be able to identify the errors such as divide by zero, zero divide by zero, and etc.