**Homework – Hello World (Basic Labview 1)**

Labview was introduced previously. For each question, screen capture the front panel and block diagram and upload a video on YouTube showing its operation. Submit your homework as a PDF file with the following name: **homeworkHelloWorld-firstLastName.pdf** e.g. homeworkHelloWorld-JohnDoe.pdf

1. Construct a VI that

* Takes two floating-point numbers as inputs on the front panel: X and Y
* Subtracts Y from X and displays the result on the front panel
* Divides X and Y and displays the result on the front panel
* If the input Y = 0, a front panel LED lights up to indicate division by zero

1. Create a VI that has a numeric control to input a number , uses the add and multiply functions to calculate and display the output using a numeric indicator
2. Create a VI that generates a triangle wave with a frequency of 125 Hz
3. Use a For Loop to generate 100 random numbers. Determine the most current maximum and minimum number as the random numbers are being generated. This is sometimes referred to a “running” maximum and minimum. Display the running maximum and minimum values as well as the current random number on the front panel. Be sure to include the Time Delay VI so that the user is able to watch the values update as the For Loop executes
4. Construct a VI that displays a random number between 0 and 1 once every second. Also, compute and display the average of the last four random numbers generated. Display the average only after four numbers have been generated; otherwise display a 0. Each the random number exceeds 0.5, generate a beep sound using the Beep VI
5. Construct a VI that has three Round LEDs on the front panel. When you run the program, the first LED should turn on and stay on. After one second, the second LED should turn on and stay on. After two more seconds, the third LED should turn on and stay on. All LEDS should be on for three seconds, and then the program should end.