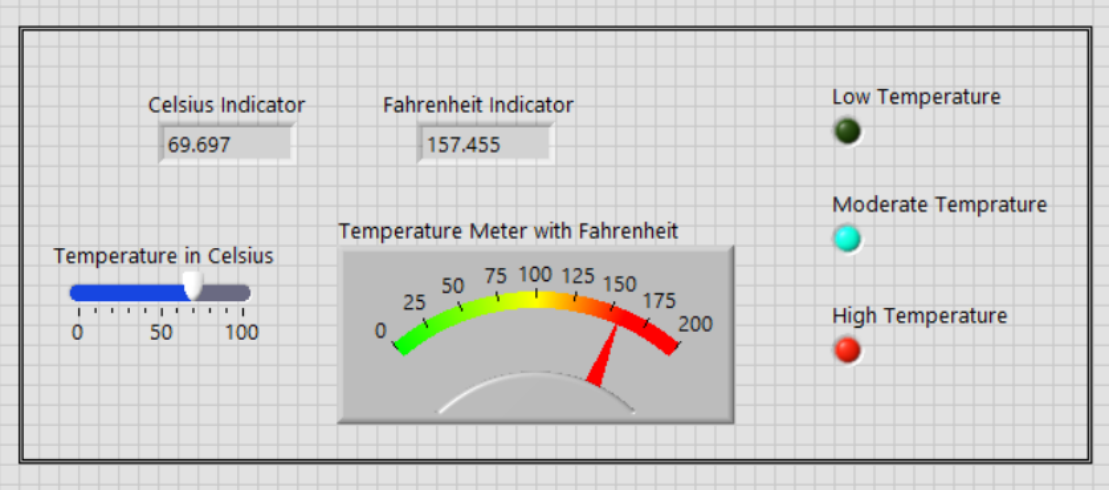
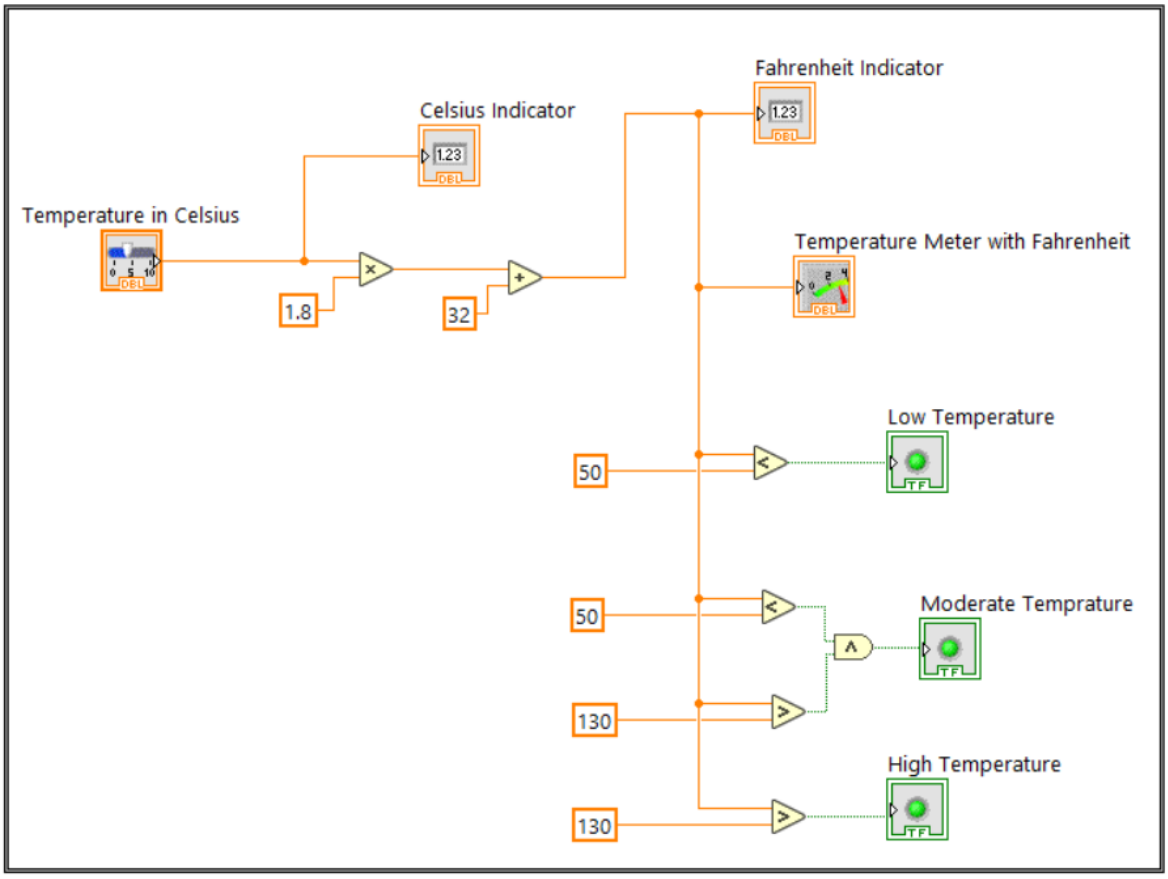
Question 1: Write a LabVIEW program to convert a temperature from the Centigrade scale to the Fahrenheit scale.

Solution:

Front Panel:



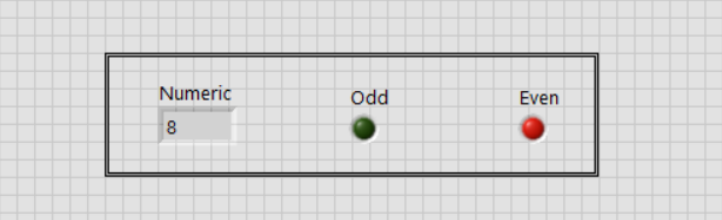
Block Diagram:



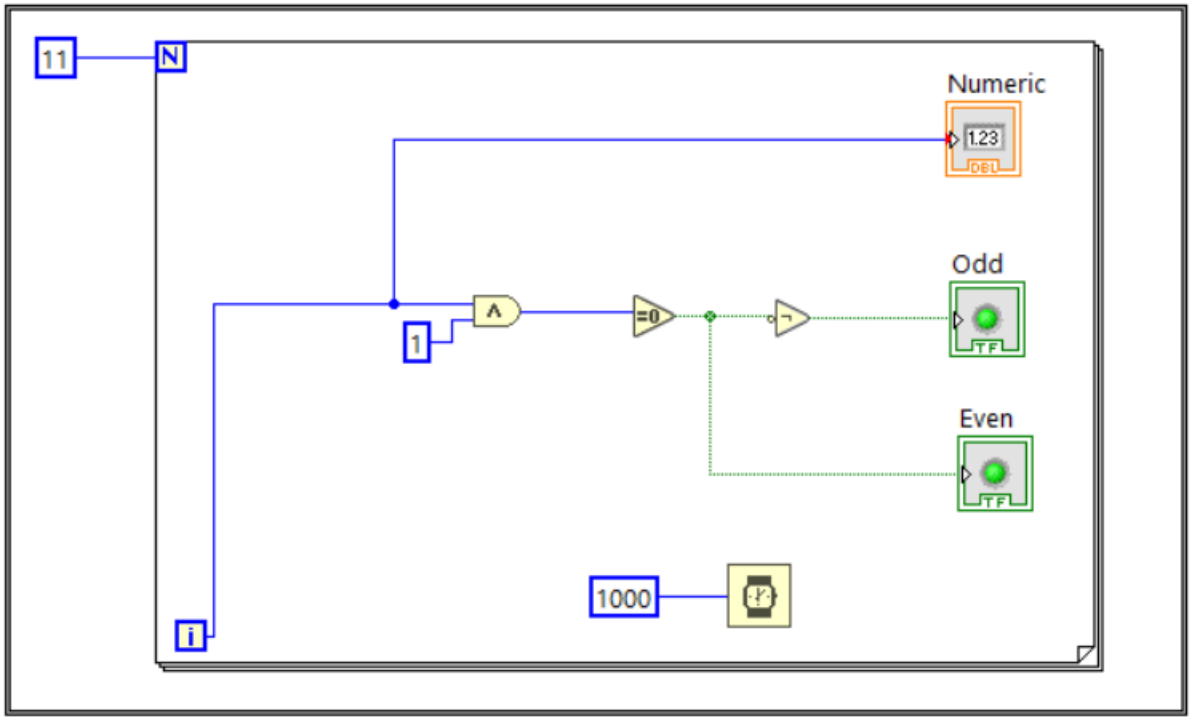
Question 2: Write a LabVIEW program to find whether a number is EVEN or ODD and to Glow an LED when the no is even and off when the no is ODD for an input count of 10 times (For loop).

Solution:

Front Panel:



Block Diagram:

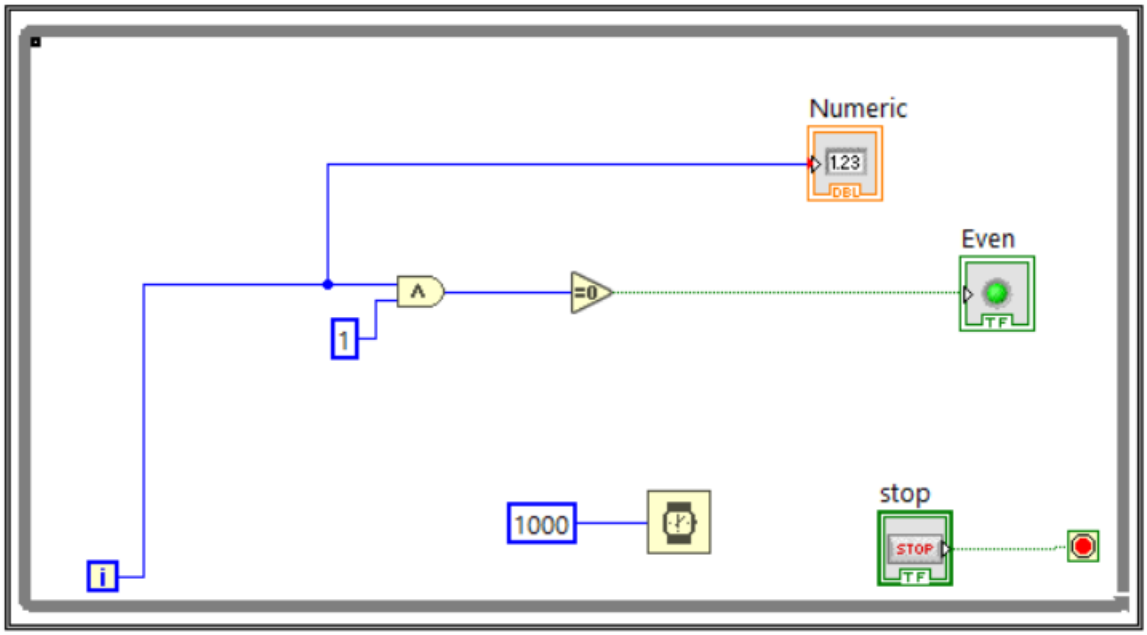


Question 3: Write a LabVIEW program to Glow an LED when the no EVEN and continue unless the user stops it.

Solution:

Front Panel:

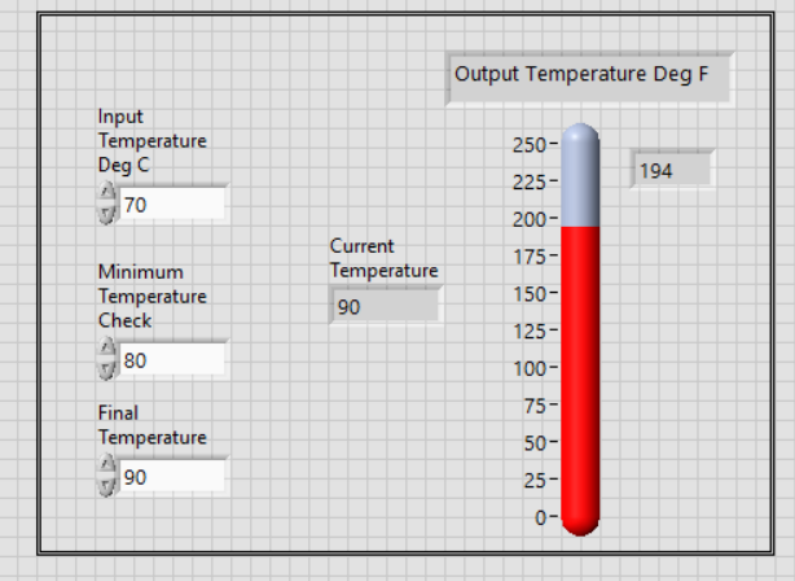
Block Diagram:



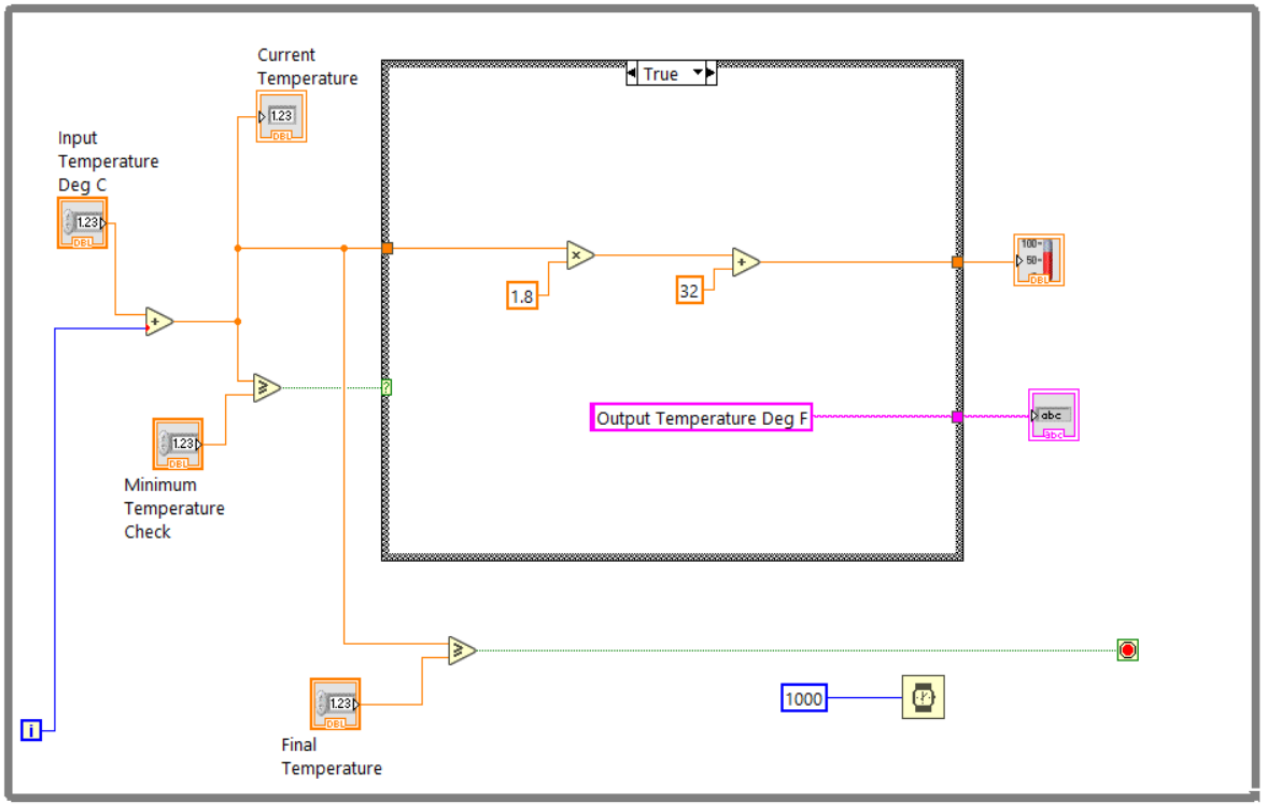
Question 4: Write a LabVIEW program using Case Structures to convert the input temperature from C-F in one case and pass on the value of C as output in the other case.

Solution:

Front Panel:



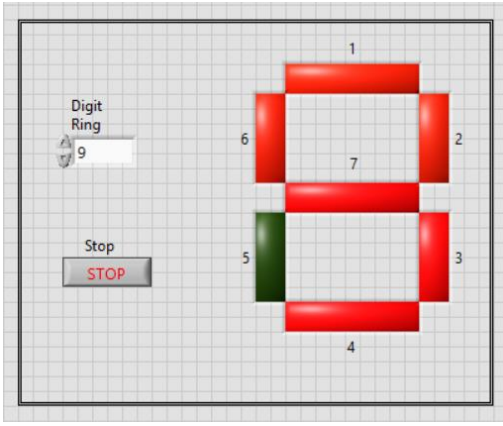
Block Diagram:



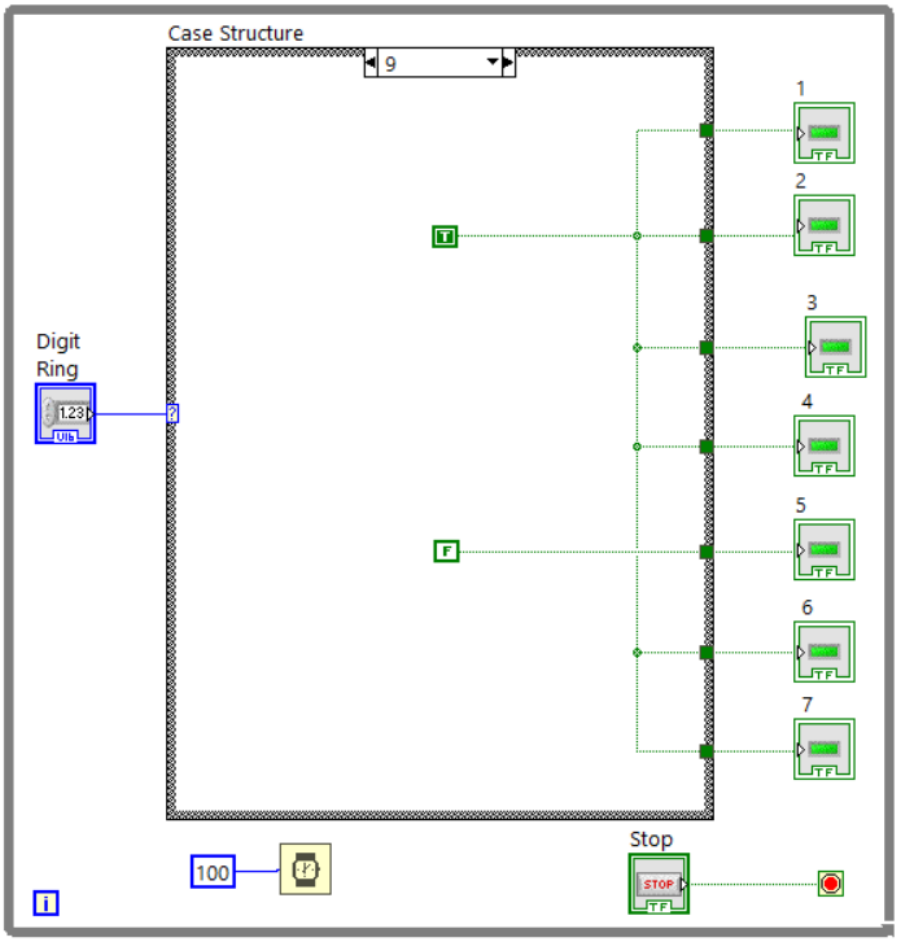
Question 5: Write a LabVIEW program to create a seven-segment display of numbers from 0-9 using case structures.

Solution:

Front Panel:



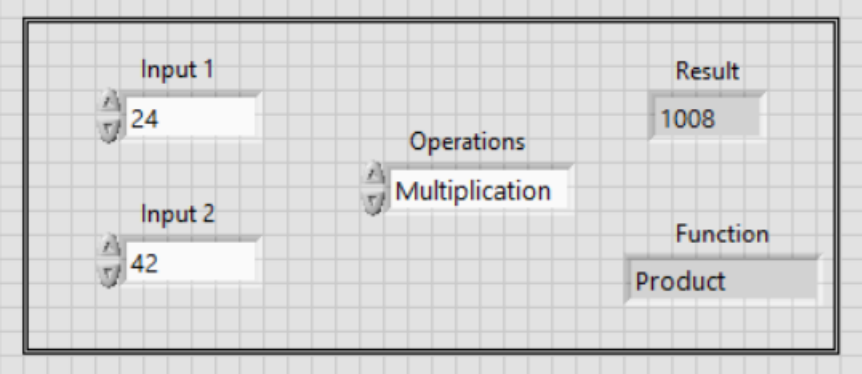
Block Diagram:



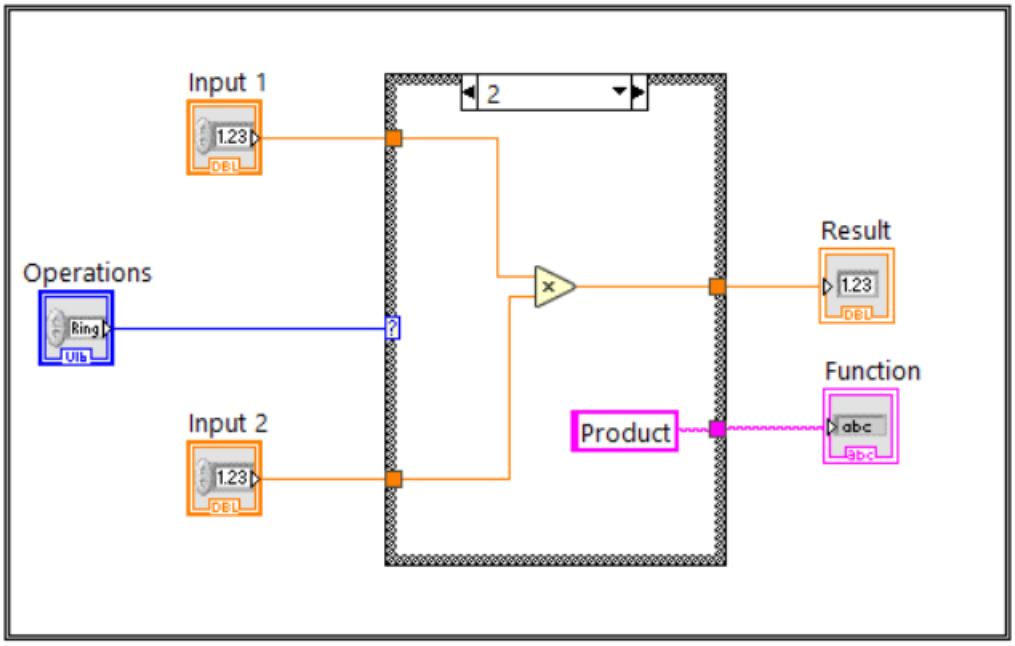
Question 6: Write a LabVIEW program to make a simple Calculator with Add, Sub, Multiply and Divide options as a Case structure.

Solution:

Front Panel:



Block Diagram:

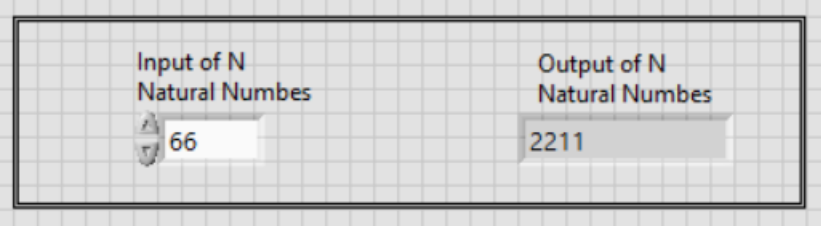


Question 7: Write a LabVIEW program to find the sum of N natural numbers and using a FOR loop and While loop along with Shift Registers.

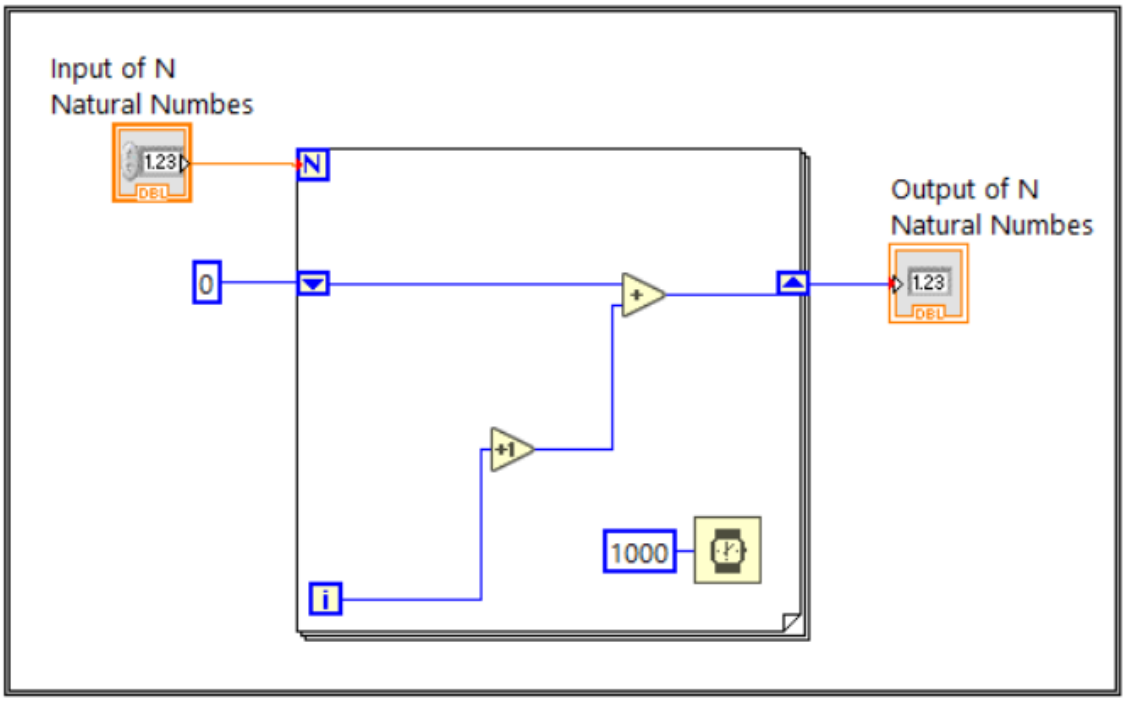
Solution:

For loop:

Front Panel:

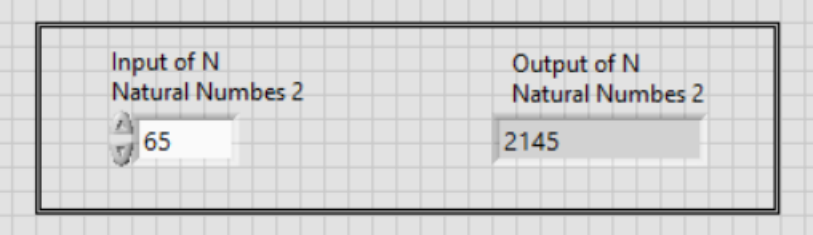


Block Diagram:

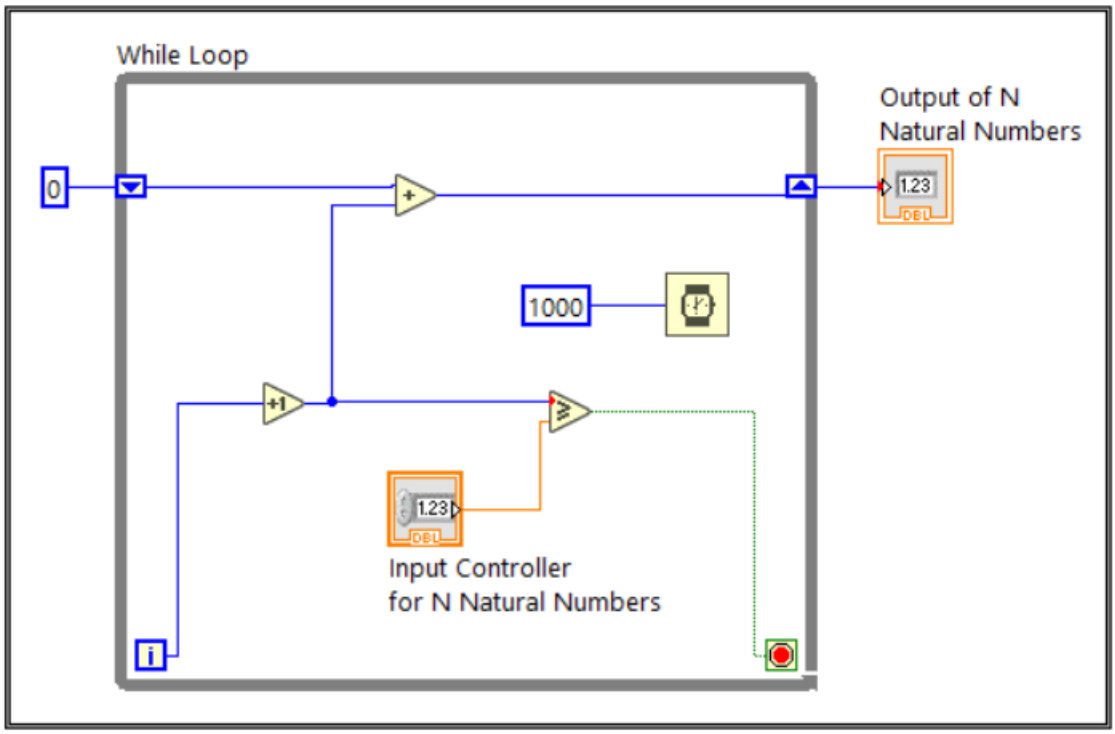


While loop:

Front Panel:



Block Diagram:

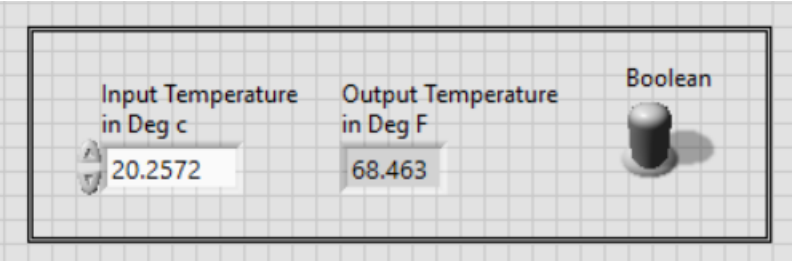


Question 8: **Write a LabVIEW program to generate a sub-VI of C to F conversion and implement the same as a part of another program.**

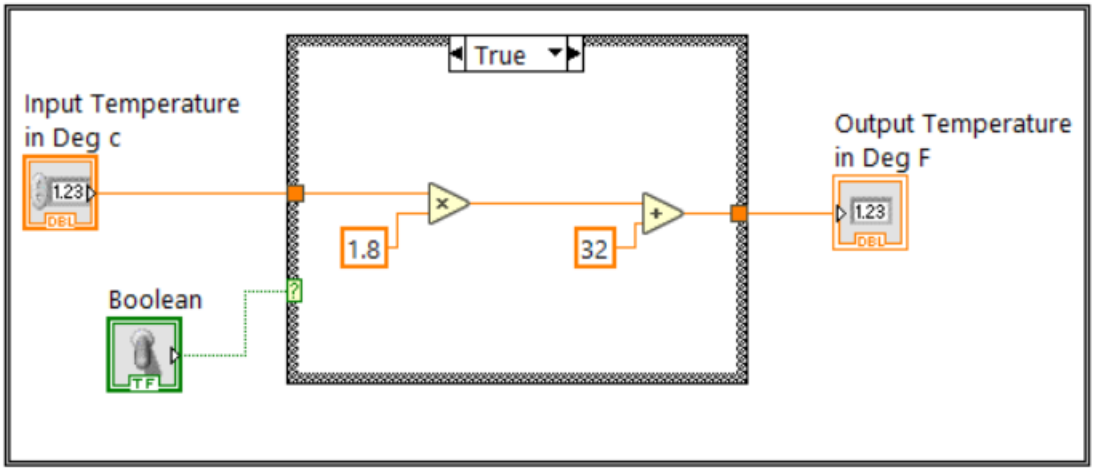
Solution:

Generated Sub -VI

Front Panel:

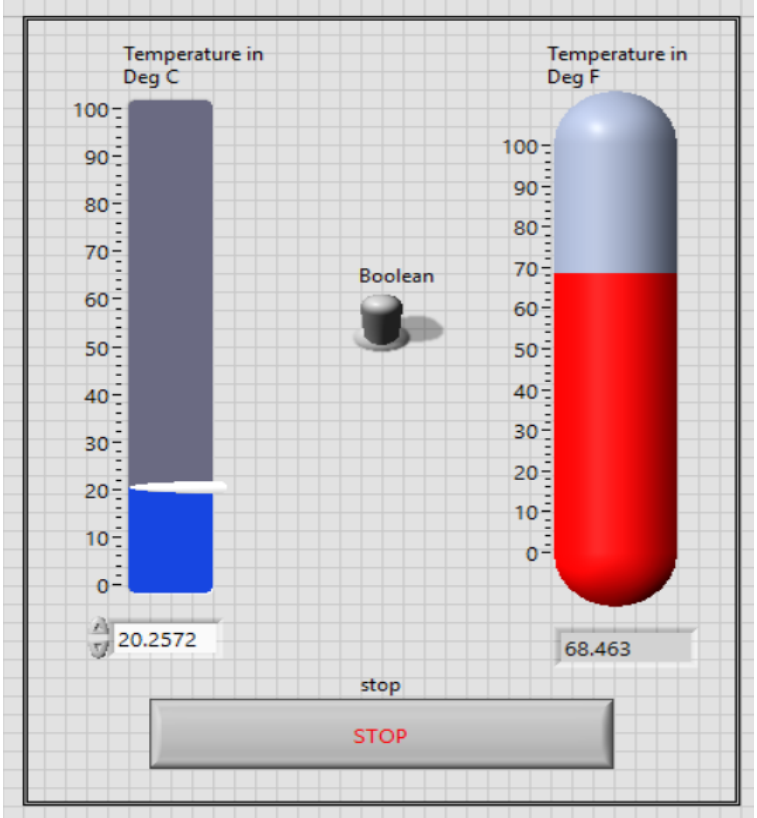


Block Diagram:

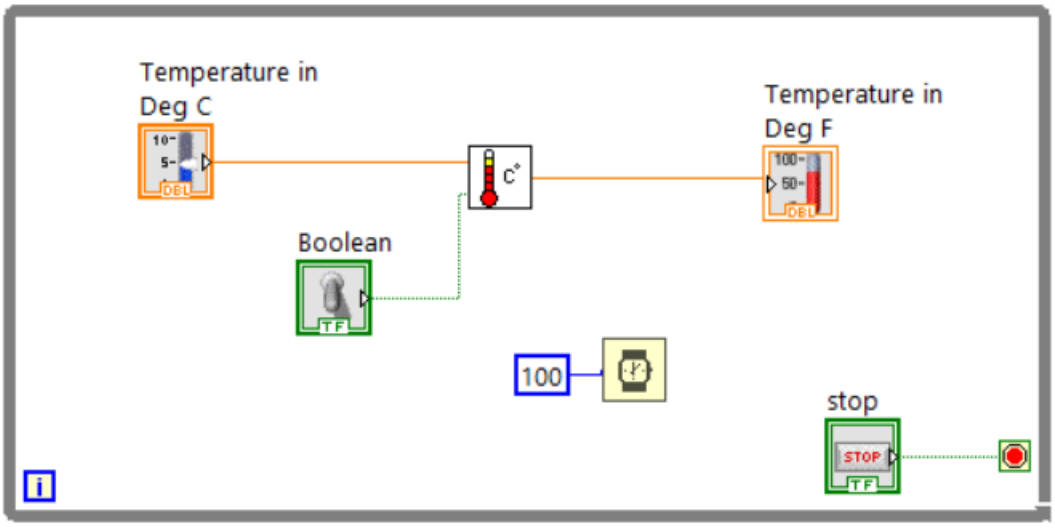


Using Sub-VI in Main Program:

Front Panel:



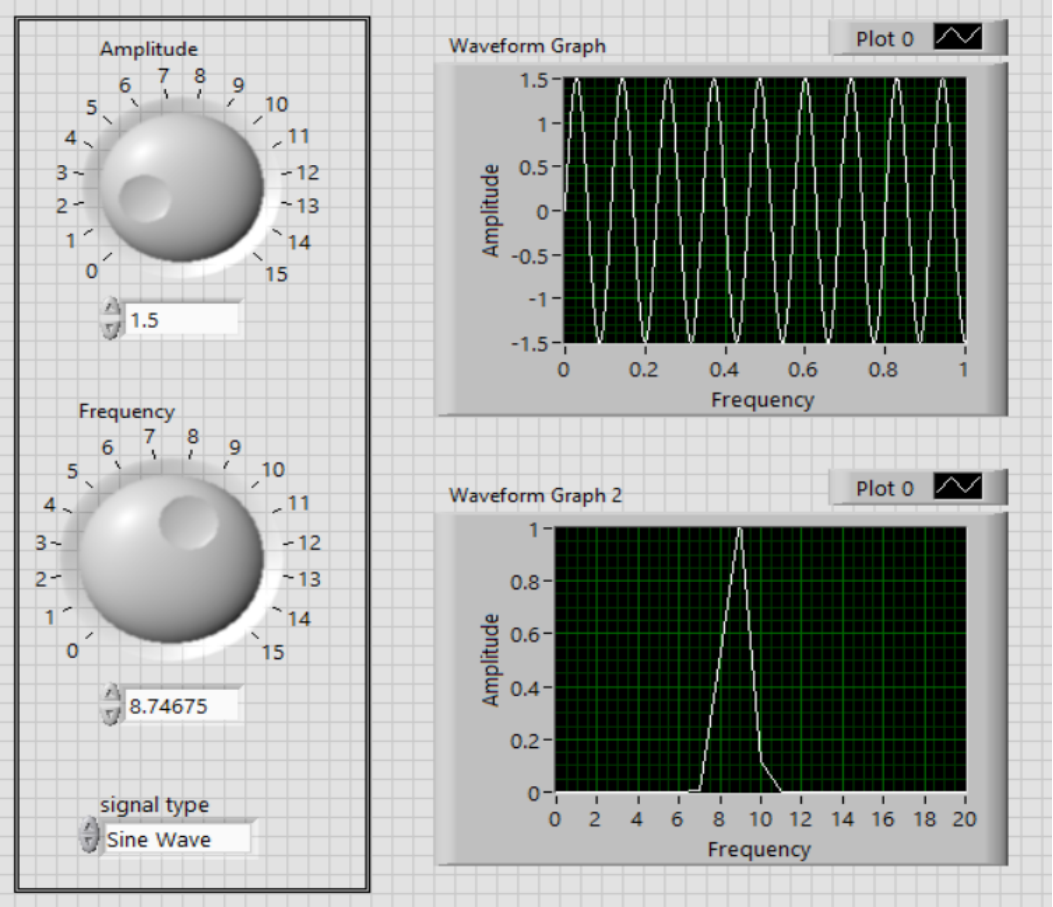
Block Diagram:



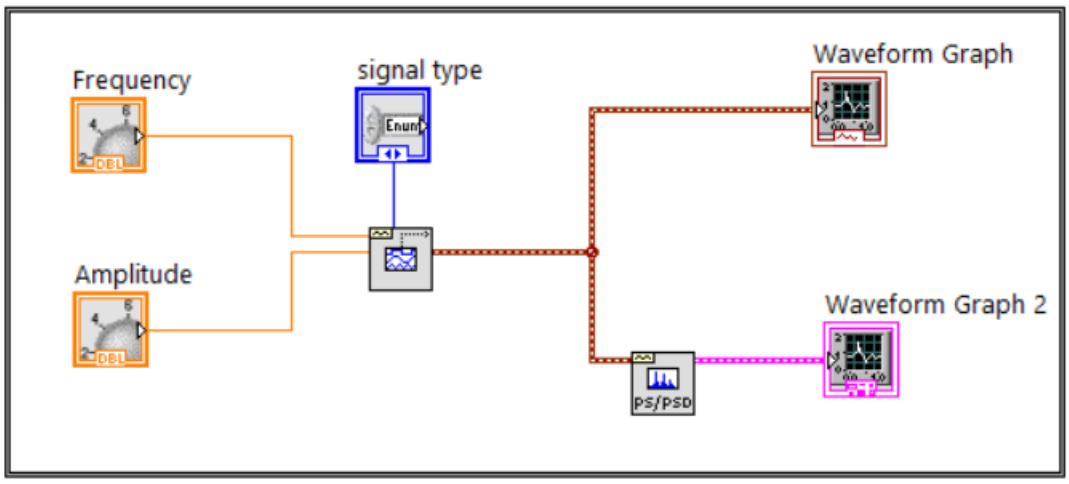
Question 9: Write a LabVIEW program to test the basic signal generations and its observation in waveform functions in the time and frequency domain.

Solution:

Front Panel:

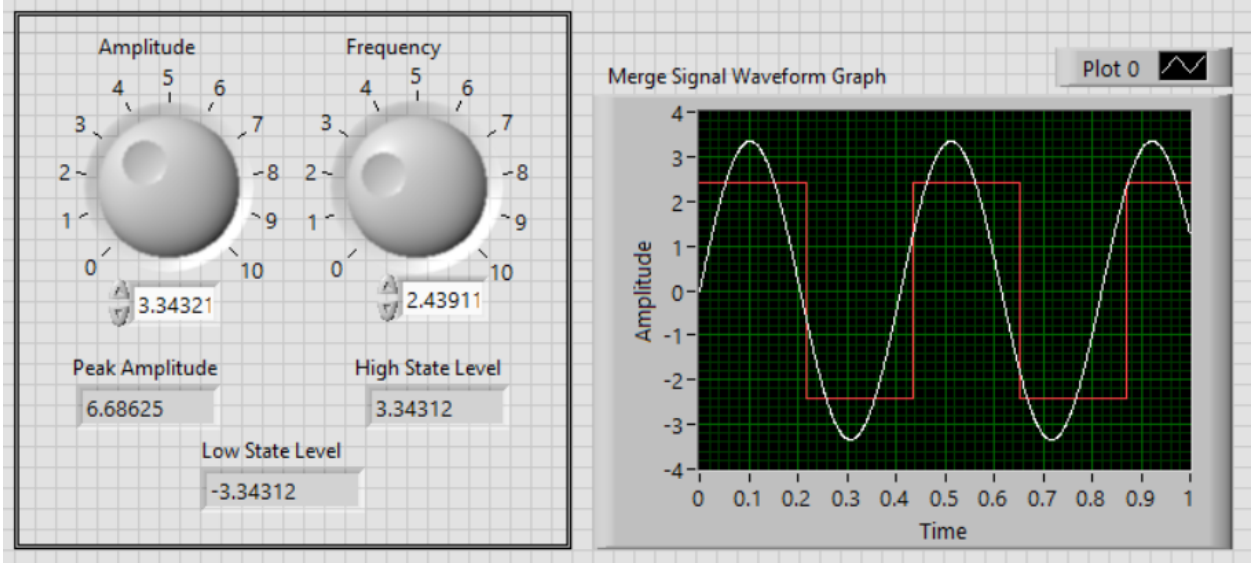


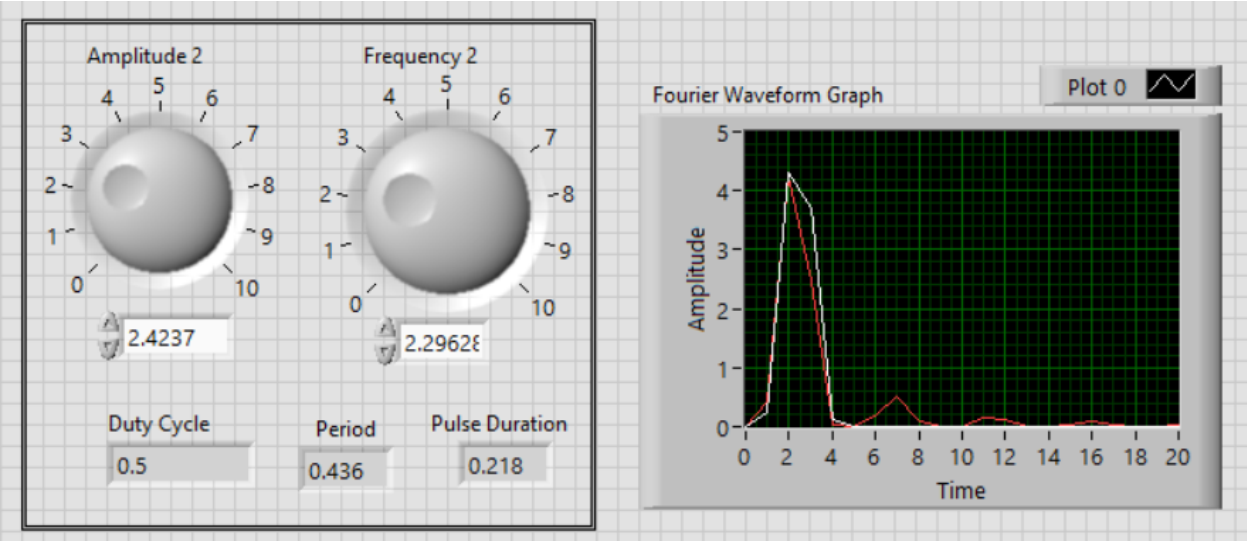
Block Diagram:



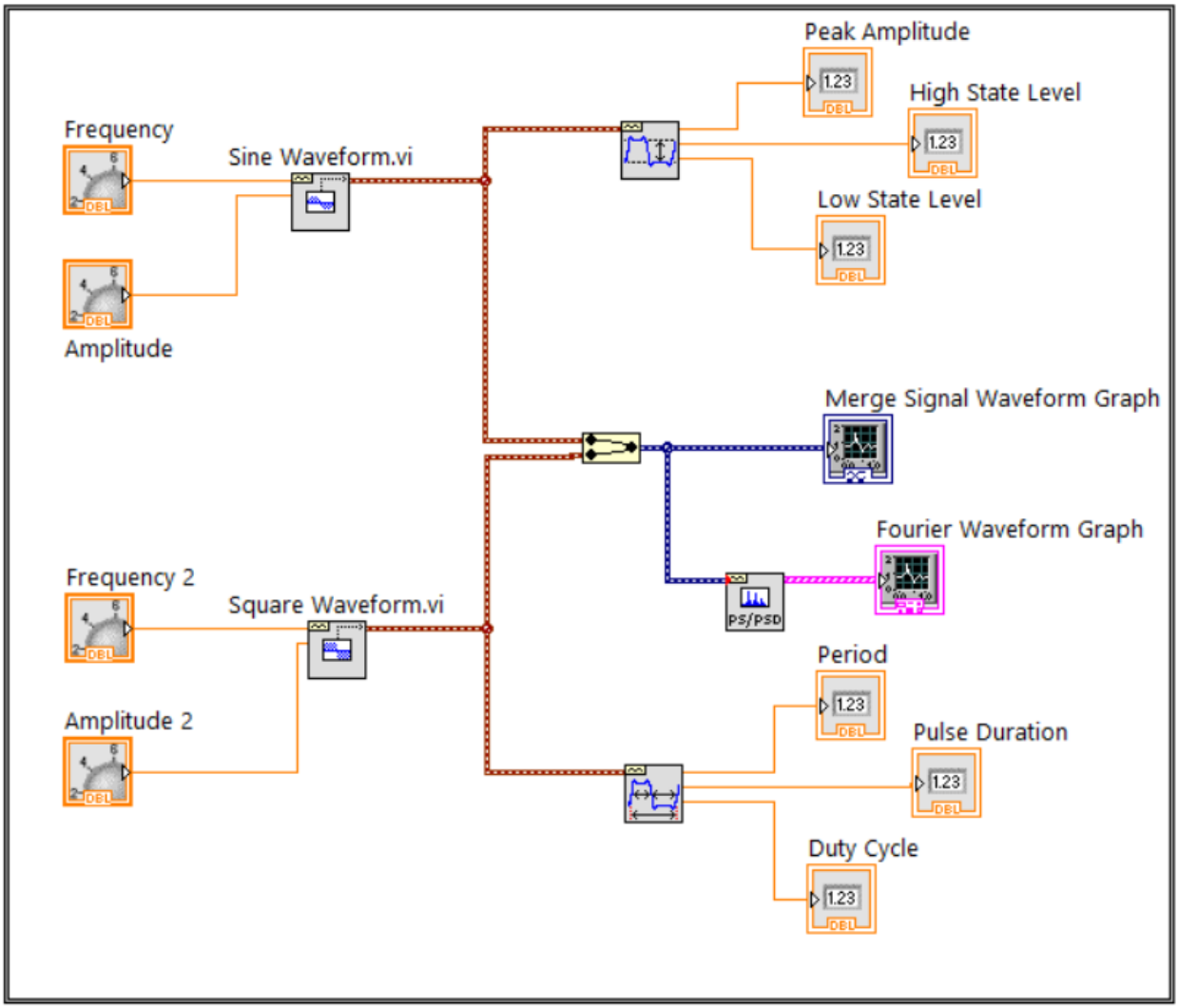
Mixing of 2 signal Wavveforms:

Front Panel:





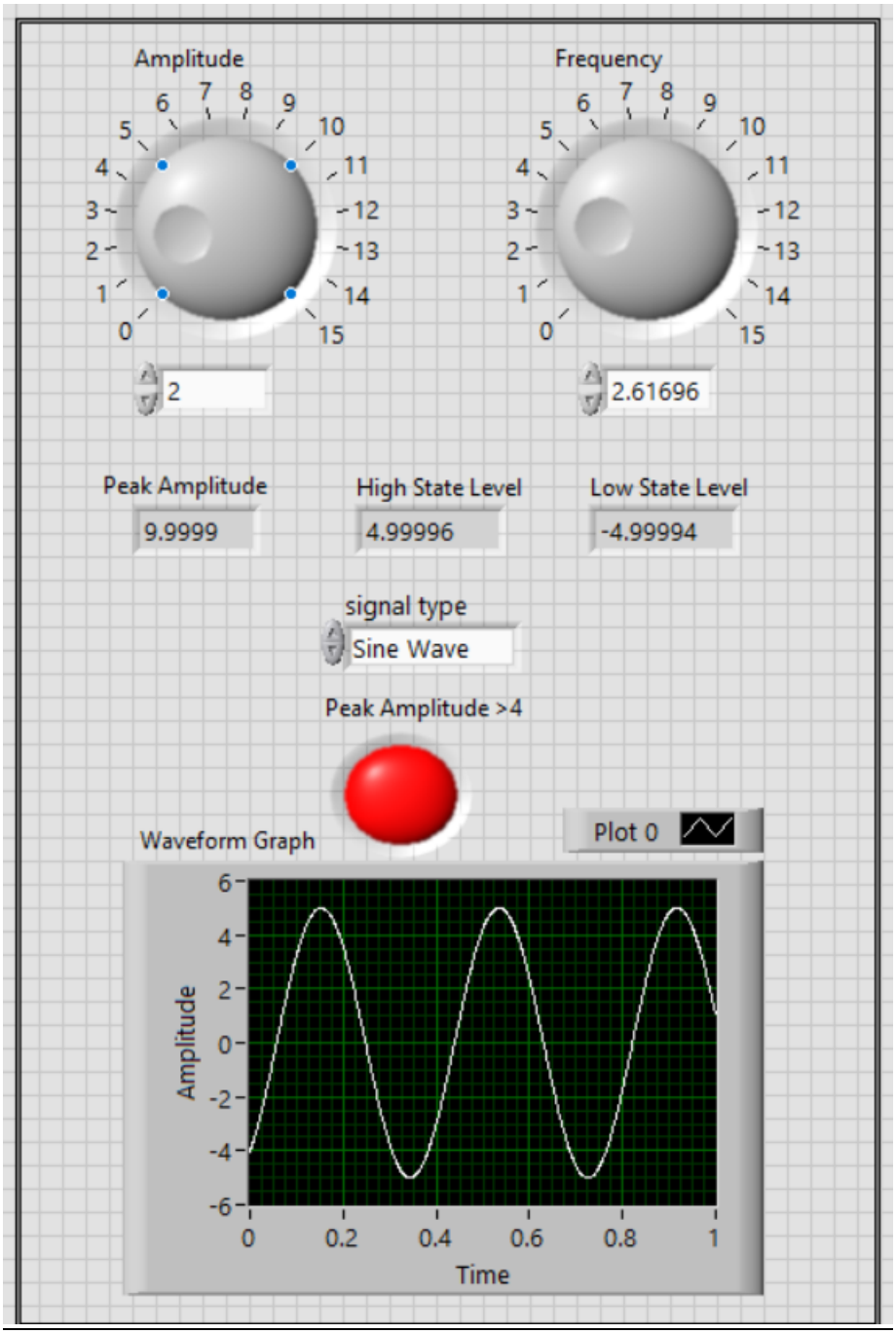
Block Diagram:



Question 10: Write a LabVIEW program to generate a sinusoidal signal and detect the peak value. If the peak value is greater than 4V then glow a RED LED.

Solution:

Front Panel:



Block Diagram: