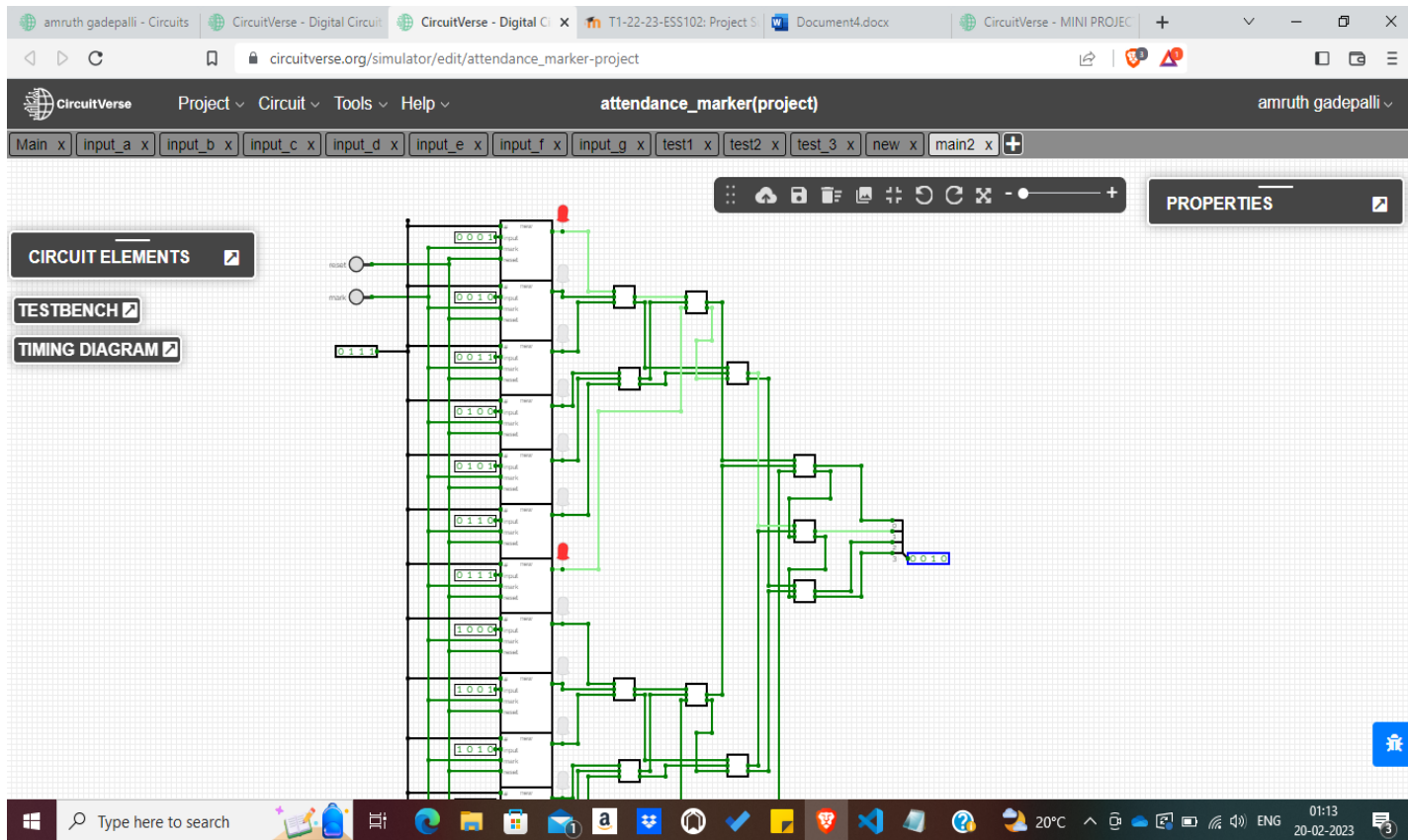
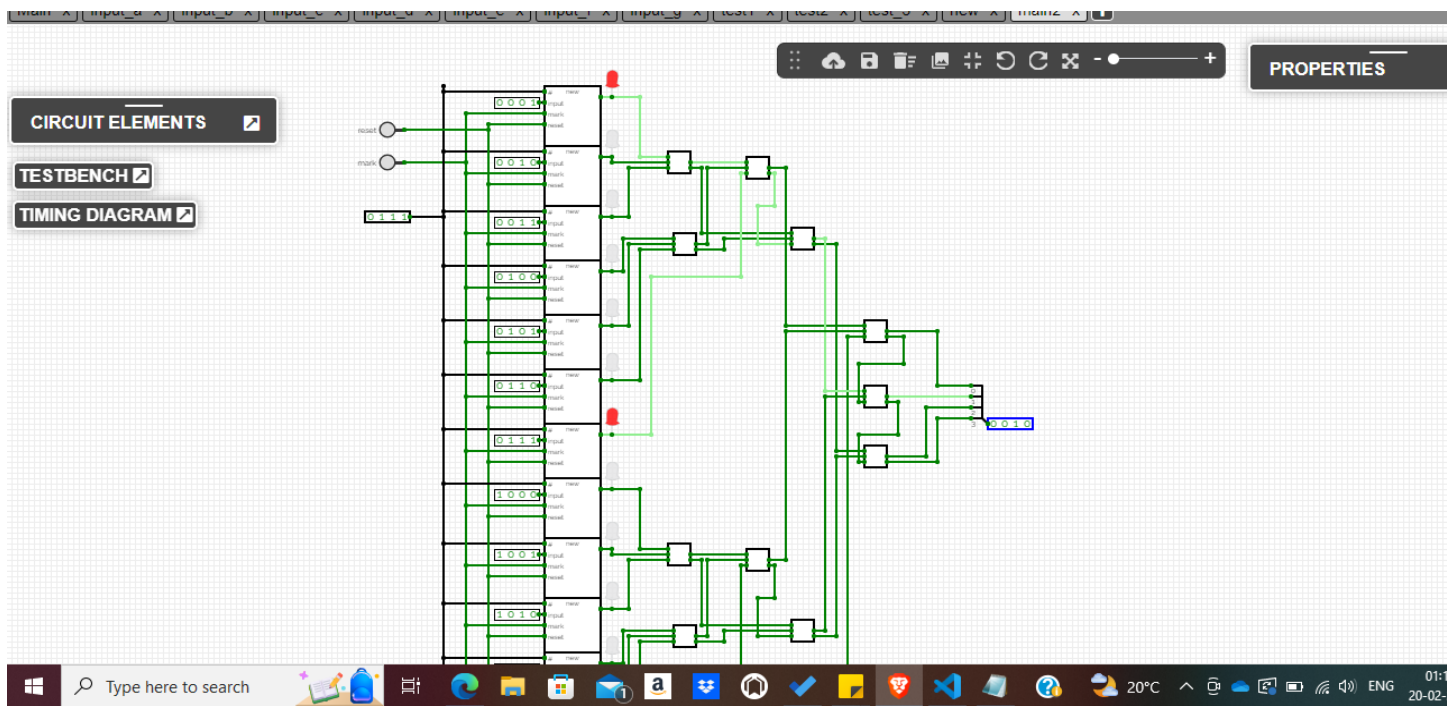
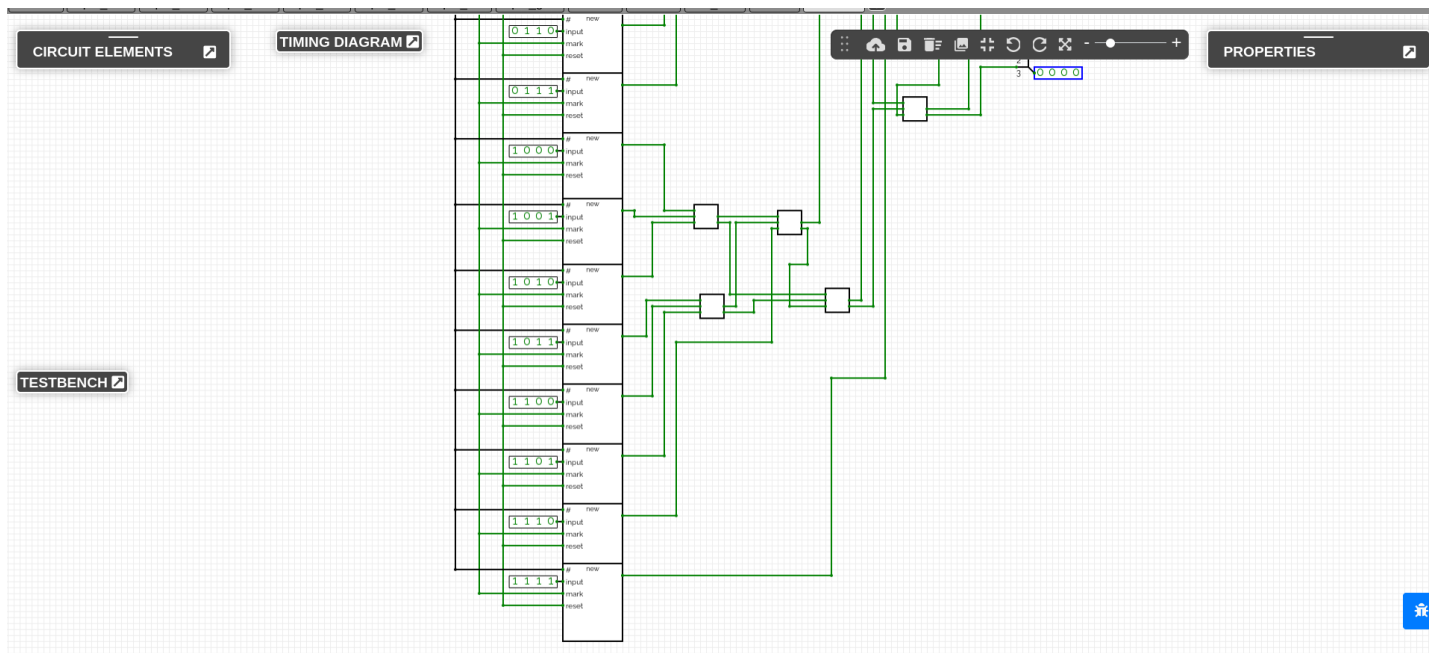




# ATTENDANCE MARKER MACHINE

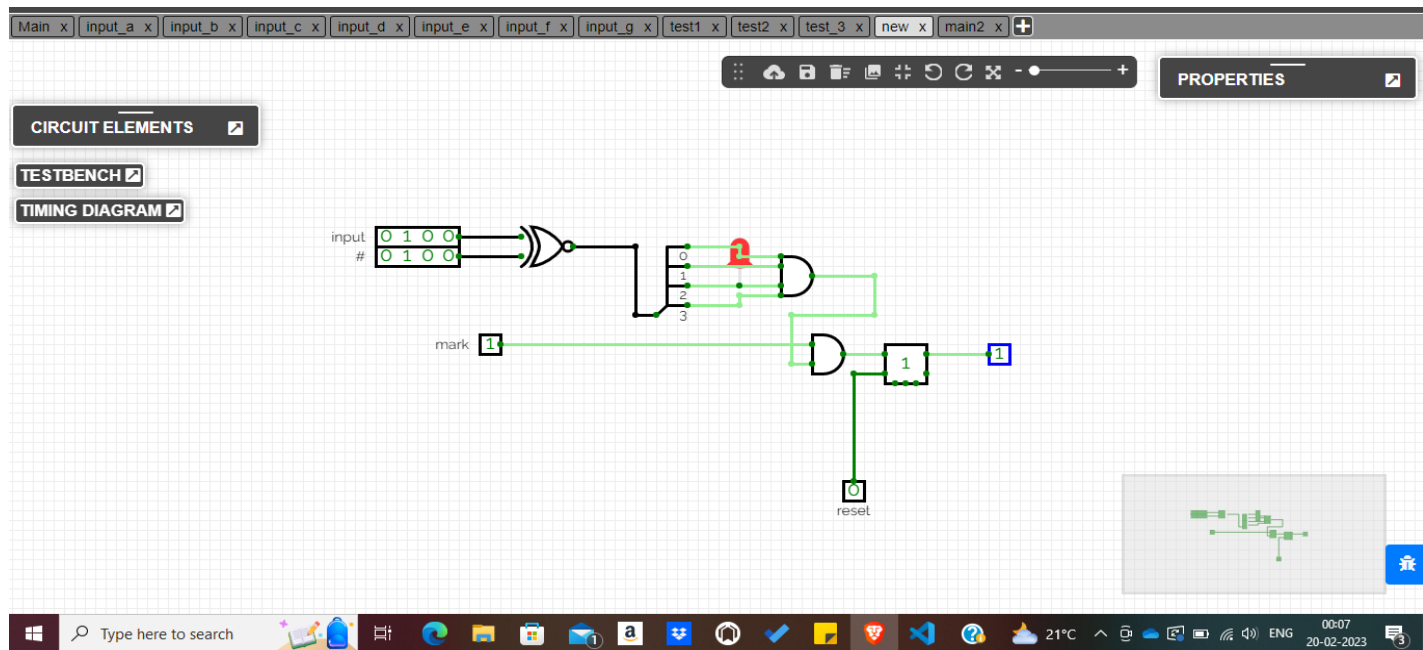
By Engineers- H.Sanjeev , Amruth  
Gadepalli, M.Saketh





it takes 2 inputs out of which one is fixed in the main circuit and the other is entered by the user

when the mark button is clicked and the 2 inputs are equal the output is high and the value is retained by a flip flop

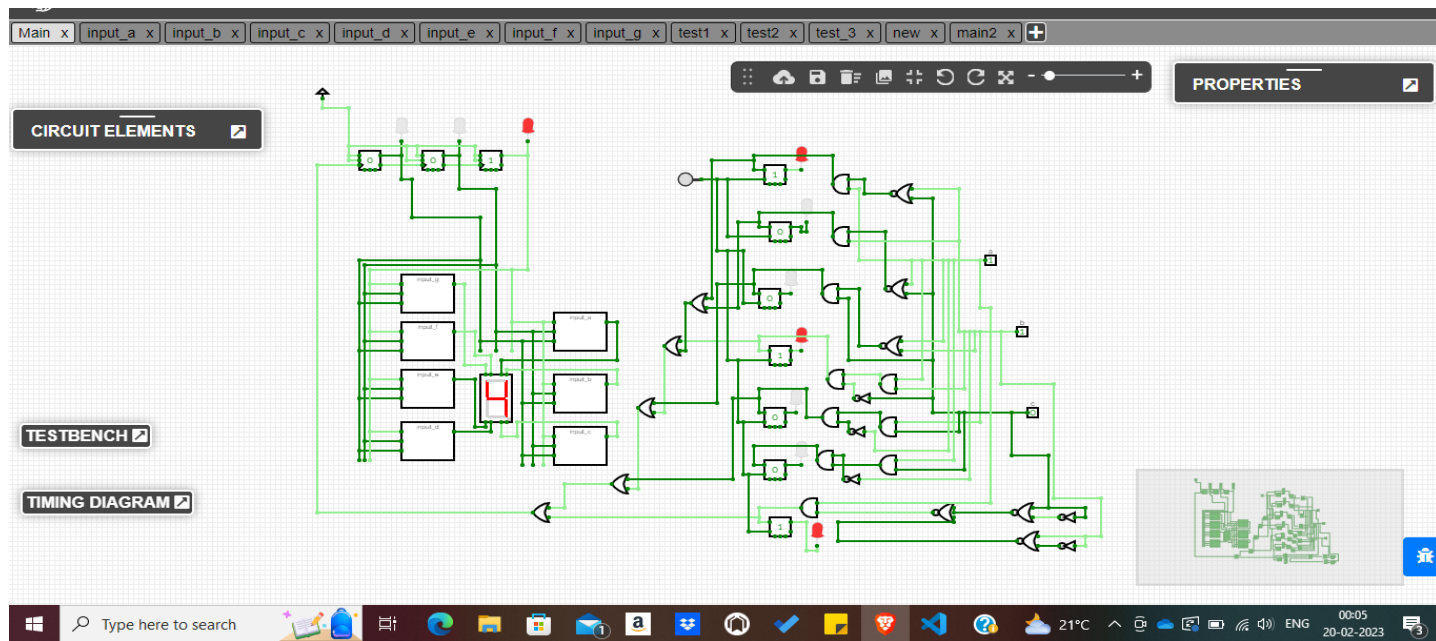


This is the module that we used to store the input of the attendance in their respective places.

while marking the attendance we keep a total count using adders .

In the first set of adders we add single bits, and when we add 2 bits which are both at high state, the borrow goes to the 2<sup>nd</sup> bit parallel adders where we add 2 bits at a time and the borrowed bit goes to the Cin, similarly the borrow of these adders go to the 3 bit parallel where the addition of 3 bits are done, and the output is shown.

Initially we did another project where we referred other projects done in circuitverse to understand the mechanism.



Here we used 7 modules which was used to make the circuit less cluttered.

Here the idea is that the inputs taken are stored in the lights to show which person is present which is later added into the flip flops for addition of the no. Of people present and where we used k maps to

To see which combination in the flip flop should give their respective numbers in the 7 segment display.

But the problems we encountered were-

If I give repeated input of the same student then the number of lights switched on do not change but the no. Of students present is increasing.

And the other issue that we faced was during the reset there was a mishap between the no. Students displayed and the lights switched on which can be only solved with the tedious task of bringing the 7 segment display to 0 and then doing the reset for the lights.

The modules we used were-

CIRCUIT ELEMENTS

TESTBENCH

TIMING DIAGRAM

PROPERTIES

```
graph LR; I1[1] --- OR[3-input OR]; I2[1] --- OR; I3[1] --- OR; I1 --- AND[3-input AND]; I2 --- AND; I3 --- AND; OR --- XOR[2-input XOR]; AND --- XOR; XOR --- O1[0]
```

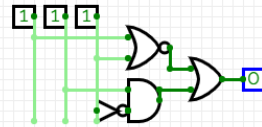
CIRCUIT ELEMENTS

TESTBENCH

TIMING DIAGRAM

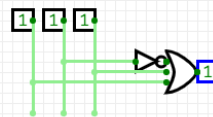
```
graph LR; I1[1] --- AND[3-input AND]; I2[1] --- AND; I3[1] --- AND; I1 --- OR[3-input OR]; I2 --- OR; I3 --- OR; AND --- XOR[2-input XOR]; OR --- XOR; XOR --- O1[0]
```

CIRCUIT ELEMENTS



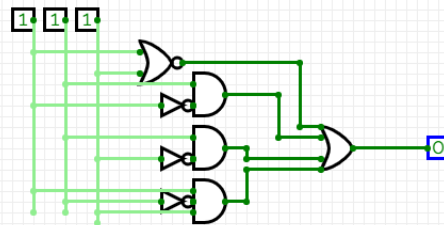
TESTBENCH

TIMING DIAGRAM



TESTBENCH

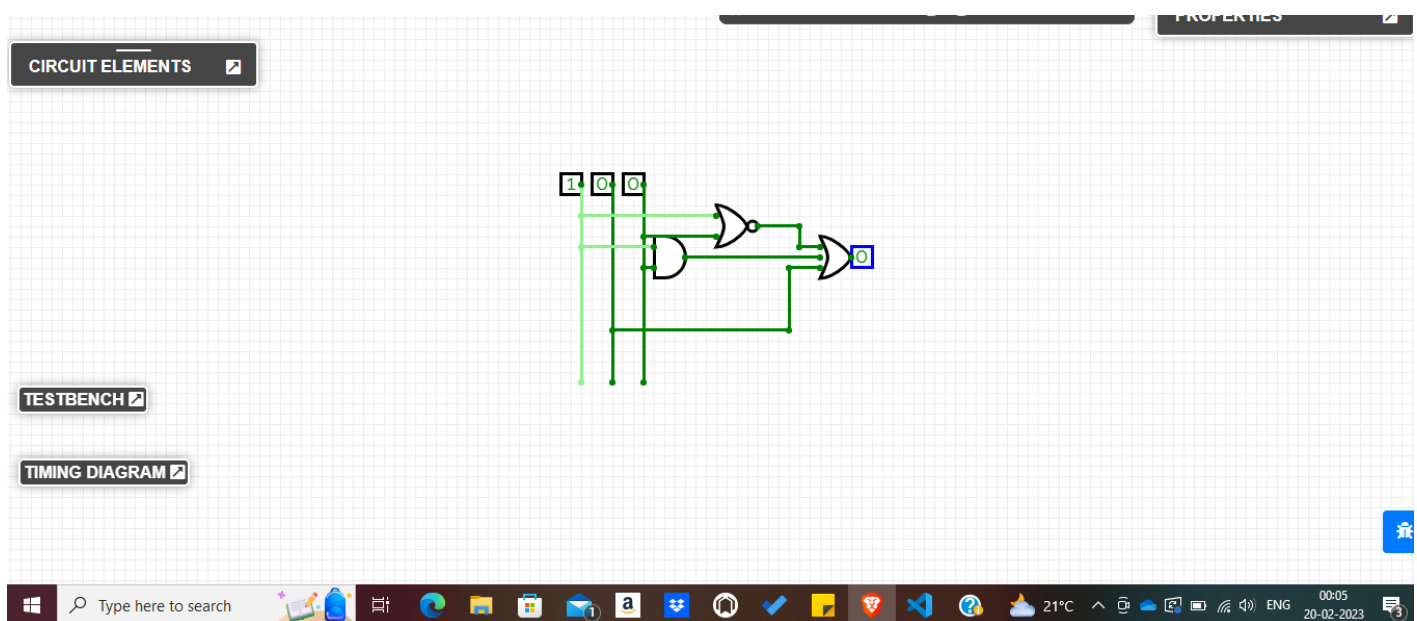
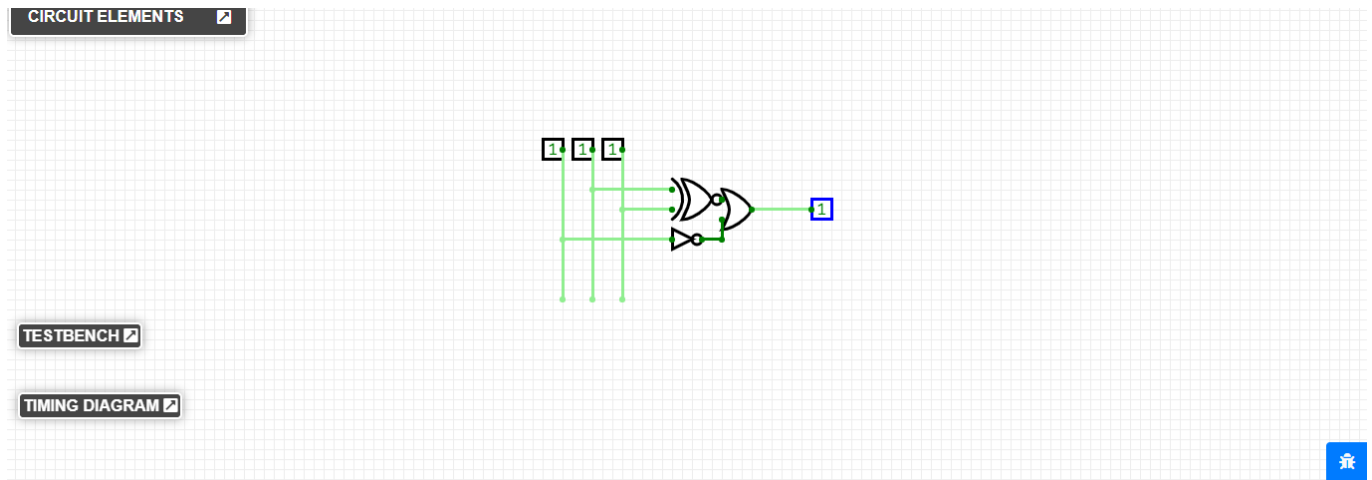
TIMING DIAGRAM



TESTBENCH

TIMING DIAGRAM





Initially we used different combinations for the flip flop to store the value of the inputs which is displayed in the lights like D-flipflop, SR-flipflop, we faced different problems with different sets



CIRCUIT ELEMENTS
TESTBENCH
TIMING DIAGRAM

we have tried using this for taking input in attendance but by the use of clock we were unable to keep the value stored,for the input of other students. when we gave a new input. it was unable to store the previous value of input

Type here to search
21°C
ENG
00:06
20-02-2023

CIRCUIT ELEMENTS
TESTBENCH
TIMING DIAGRAM

we tried using d-latch, but the problem was we couldn't use the reset option as the value of the enable input had to be changed every time to reset which is time consuming. we even tried putting a not gate but there is no scope for reset.

Type here to search
21°C
ENG
00:07
20-02-2023

This is the successful method we used -

CIRCUIT ELEMENTS
TESTBENCH
TIMING DIAGRAM

this is the successful design we have used to store the inputs for the students where we can take multiple inputs and also use reset.sss

Type here to search
21°C
ENG
00:07
20-02-2023