Participants:

Name	ID
Seif Hisham Abdelmeguid Eldidi	19017524
Ali Ehab Mohamed Bakry Sono	19016012
Ali Khaled Mohamed Ahmed	19017540
Aly Muhammed Aly Elruby	19016023
Ibraheem Osama Ahmed Kamal	19015159

The main idea:

To generate the binary sequence a 6-bit counter is designed using cascaded t flip flops, furthermore the output of the counter is then fed to a binary to BCD converter (exploiting the double dabble algorithm), moreover the BCD output is decoded using a BCD to 7 segment decoder which is crucial for each 7-segment display to work properly and light the To alert the drivers and pedestrians a yellow light is turned on in the last 19 seconds of the traffic-light lifetime, which is simply done by using a Comparator.

Inputs:

1)Clock delay in milli seconds as an integer input.

2)Apply as a click button.

3)Stop as a push button,

Output:

1)2 7-segment displays.

2) Traffic lights (Green, Red and Yellow).

desired color (Red or green by adding a j-k flipflop).

Inner component:

1- Down-counter.

2- Binary to 2-digit BCD decoder.

3- BCD to 7-segment decoder.

4- 2-digit 7-segment.

5- A sequence detector for traffic lights LEDs.

Block Diagram: