

OUTPUT:

Output are attached herewith:

1.

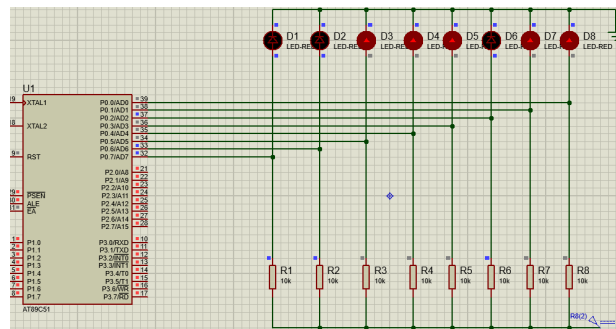


Fig 1. Output of the sum of two numbers stored in RAM starting at 40H.

2.

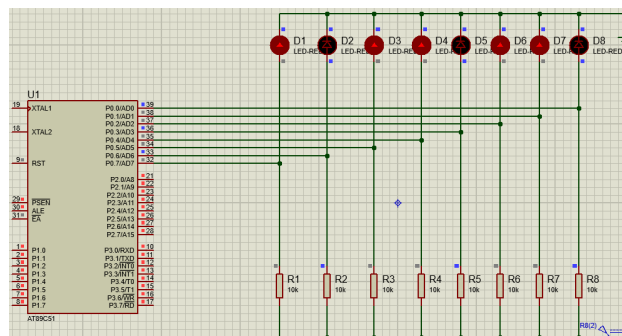


Fig 2. Output of the SWAP instruction using rotate right instruction.

3.

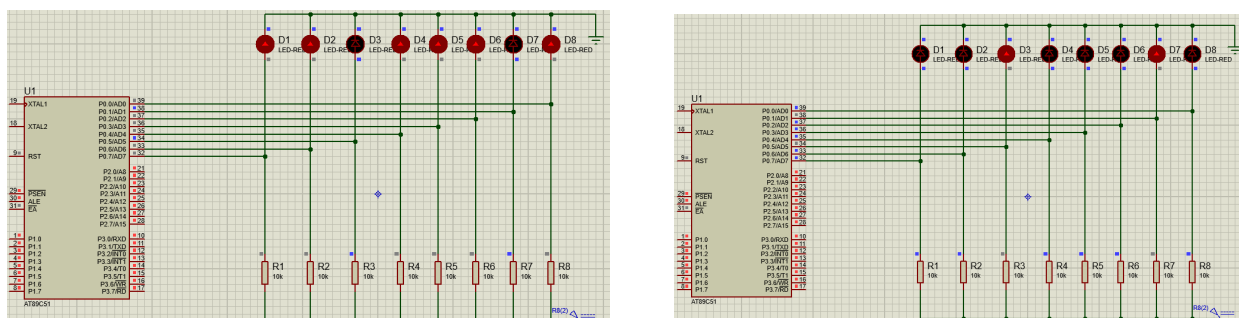


Fig 3. Output of Multiplication using adding showing higher byte(left) and lower byte(right).

D:0x19: 22 DD

Fig 4. Storage of result in internal RAM

4.

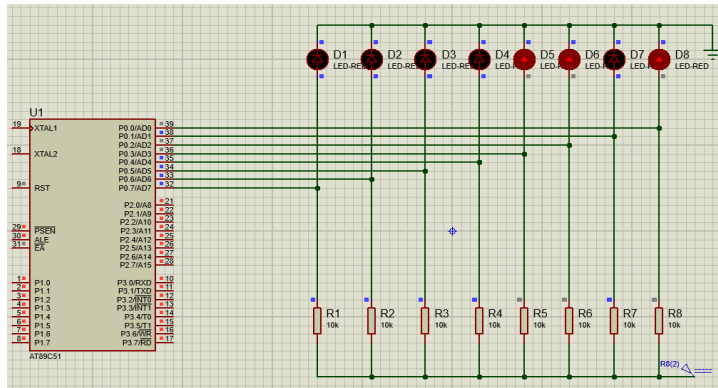


Fig 5. Output of the division algorithm in proteus
Remainder in R5

r4	0x09
r5	0x0d

Fig 6. Quotient in R4 and
Remainder in R5

5.

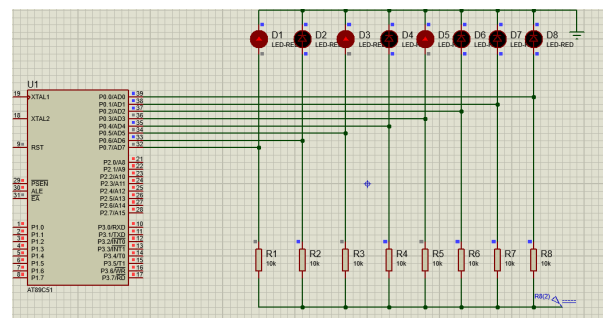
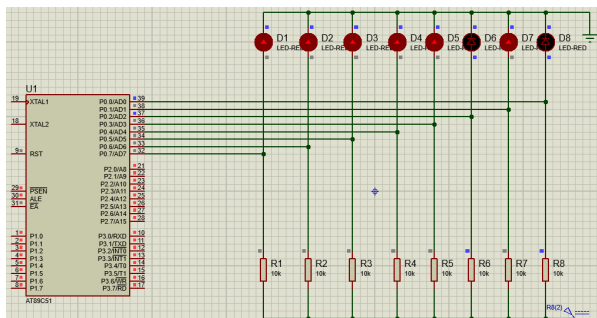


Fig 7. Maximum (left) and Minimum (right)

D:0x50: A8 AE B9 BA CC CE D6 E4 F2 FA

Fig 8. Storage in the internal RAM (sorted)

6.

1B 31 42 67 84 9A A5 C7 DF FD

Fig 9. Storage of numbers in internal RAM (screenshot after sorting)

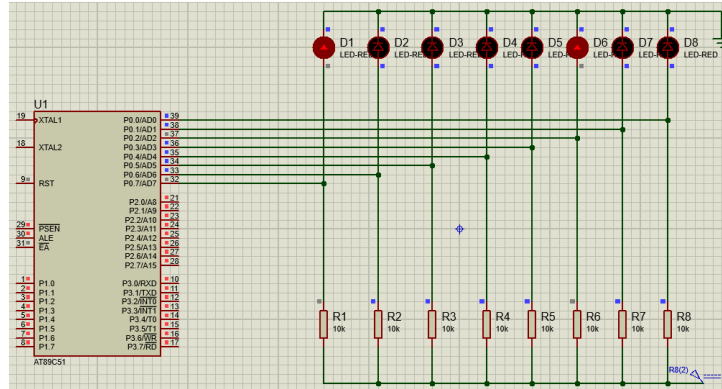


Fig 10. Proteus Simulation of storage of numbers

7.

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D:0x40: 00 01 02 03 04 05 06 07
D:0x48: 08 09 0A 0B 0C 0D 0E 0F
D:0x50: 10 11 12 13 14 15 16 17
D:0x58: 18 19 1A 1B 1C 1D 1E 1F    D:0x61: 02 03 05 07 0B 0D 11 13 17 1D 1F
```

Fig 11. Storage of numbers from 00h to 20h(left) and prime numbers among them(right)

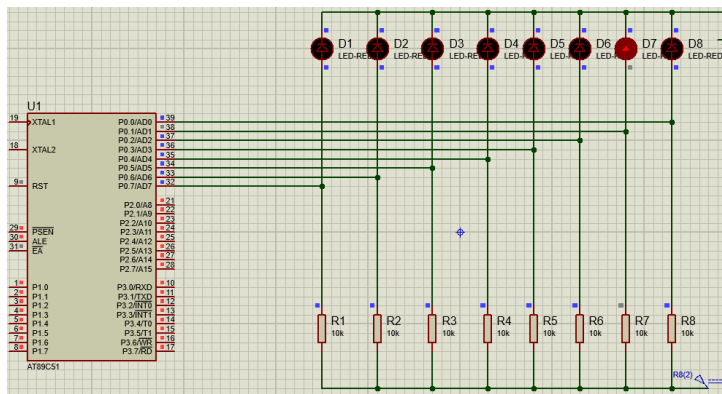
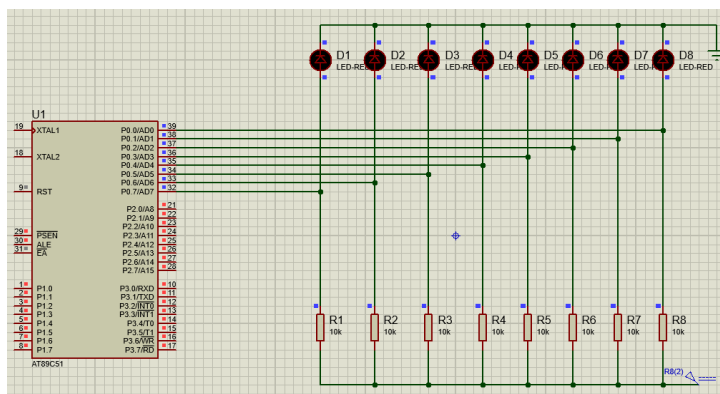


Fig 11. Proteus Simulation for prime numbers

8.



D:0x40: 00 02 01

Fig 12. Proteus Simulation (left) and decimal representation of factorial of 5 in decimal (right)