

1 Ask the user what he wants

a) Turn on the vehicle engine

This option is discussed from option 5

b) Turn off the vehicle engine

3 Go back to option 1 and ask the user again to choose from the past (3) choices already implemented

4 When has been chosen  
Print the system state

c) Quit the system

This'll lead to option 2

2 Quit (end) the whole program

For the choice of (a)

5 1 Display "Sensor set menu":

a) Turn off the engine → 8 → Go Back to 1

b) Set the traffic light color → 7a

c) Set the room temperature → 7b

d) Set the engine temperature → 7c

After these OR 7d → 7e: Display vehicle state like 4

6 While the engin is ON

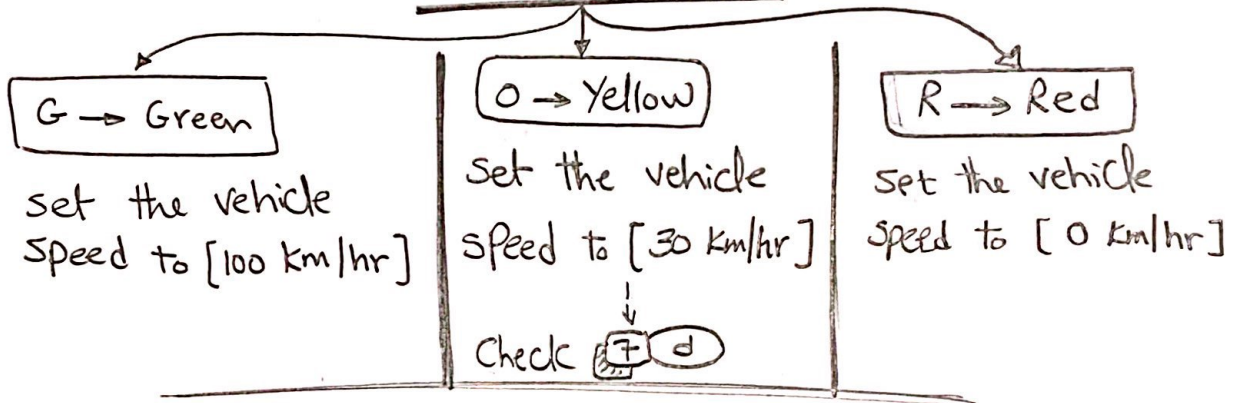
menu of 5 must be always displayed and waits for an answer

7 Depends on the choice of 6 From 5 sensor set menu

b c d

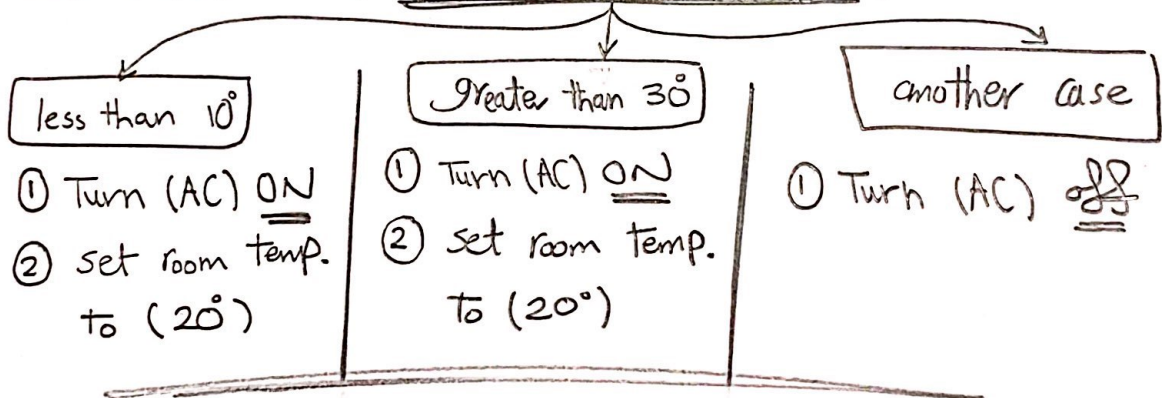
a if the user chose option b

Take the (traffic light data) from the user



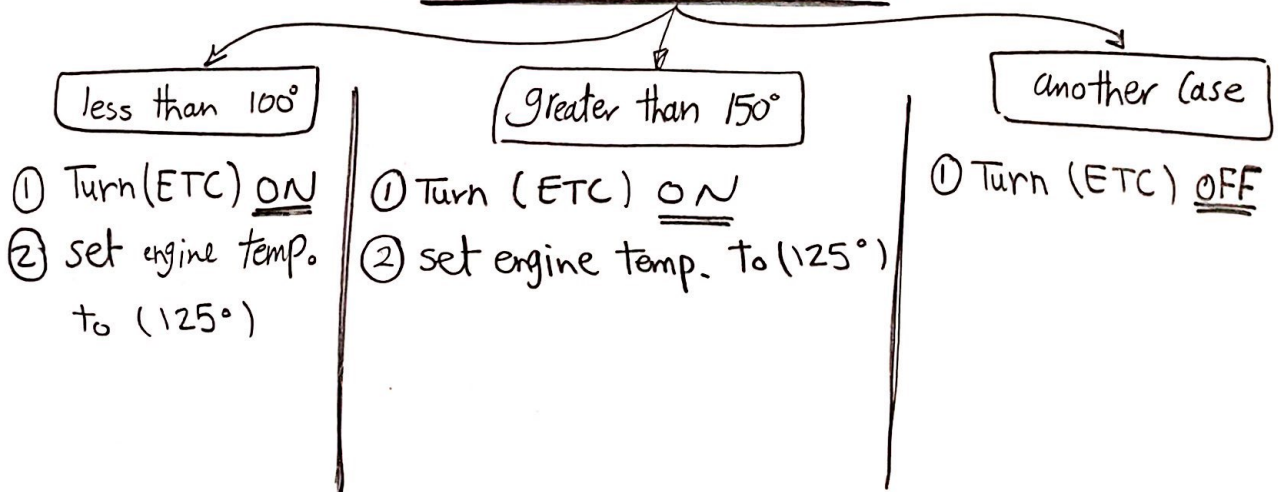
b if the user chose option c

Take the (room temperature data) from the user



c if the user chose option d

Take the (engine temperature data) from the user





**7** rest of this option

**d** Check if the (vehicle speed) is  $\rightarrow$  30 Km/hr

$\rightarrow$  Do two things:

**i** ① Turn (AC) ON  $\rightarrow$  if it was OFF  
② room\_temp = curr\_temp \* (5/4) + 1

**ii** ① Turn (ETC) ON  $\rightarrow$  if it was OFF  
② eng\_temp = curr\_temp \* (5/4) + 1

**e** After applying any option of **7**

$\rightarrow$  You should display vehicle state

\*\* Vehicle State in **4** and **7e** are presented as :

**i** Engine state : ON / OFF

**ii** AC : ON / OFF

**iii** Vehicle speed :

**iv** Room temperature

**v** Engine Temperature Controller (ETC) State : ON / OFF

**vi** Engine Temperature