Pa2-1-2016

Drivers are advised to keep two seconds of space between their car and the vehicle in front. This distance is the distance that your car goes in two seconds at the current speed additionally for long vehicles (length greater than 6m) the driver should have one second space for each extra 3m.

Given as input the speed and length of the vehicle, and the distance to vehicle in front. Develop a python program to output if the driver is safe , and print the required total distance.

a. The input is a text file in the same folder. You get the text file name as input from the terminal to your program
b. Have a function named "**getText**" to read input from file. Handle invalid input properly and output the string **INVALID** to a file and display a meaningful message on screen .
c. Have a function named "**showResult**" to display the output on the screen and to write it to a file name "**result.txt**" in the same folder. You may define additional functions in your code.
d. The main program should call the functions appropriately to achieve the task.

Format

Input (via terminal): Name of the input file in a single line.

Input File: The file contains 3 integers on separate lines in the following order : speed of your vehicle (in kilometers per hour), length of your vehicle (In meters), and distance to the vehicle in front of you (in meters)

Output: If the driver is safe the output should be ”**SAFE**”. If the distance is not sufficient output “**DANGER**” on first line and the required total distance in meters (rounded to nearest distance) on second line.

Sample:

Input file name:input_1.txt

50	**SAFE**
13	
100	

Input file name:input_2.txt

85	**DANGER**
6	**47**
40	

Explanation :

Case 1:As the length is 13 meters , 3 seconds should be kept for the extra 7 meters. So total distance should be of 5 seconds. Therefore the required distance is 70 meters and the driver is safe.