

Question 1

- a) My program is going to represent an airbag system. The user inputs for my program are the speed of the car, the time it took for the speed to change (in seconds) and the weight of the passenger. I have defined a procedure which is checking if the weight is less than a certain number. In case it is a child, the airbag would not be deployed. After that, it is checking if the deceleration is greater than a particular threshold, and if it is, the airbag is deployed. The deceleration is calculated in a separate function and is being passed to the previous procedure as an input. After that, I have created a function which converts the status of the system to a string. My program stops in case the airbag is activated. Otherwise, it asks the user if they want to try again.