In a city there are three different types of buses – red bus, green bus, and yellow bus. There are 3 different types of passengers: (i) senior citizen, (ii) child, and (iii) adult. Each of these buses follow the route from A, B, C, D, E, F, G. All of them start from A and and go upto G (single direction). The following conditions are given:

1.   A senior citizen takes 20 seconds to board in and 20 seconds to get off a bus.
2.   A kid takes 20 seconds to board in and 1 minute to get off a bus.
3.   An adult takes 10 seconds to board in and 10 seconds to get off a bus.
4.   A red bus loses 6 ml fuel if it waits for 1 min at any stop.
5.   A green bus loses 5 ml fuel if it waits for 1 min at any stop.
6.   A yellow bus loses 4 ml fuel if it waits for 1 min at any stop.
7.   While travelling between two consecutive stops, a bus loses a fuel (in ml) equal to the number of passengers boarded on it (same for all bus types).
8.   A red bus can accommodate 40 passengers at the most.
9.   A green bus can accommodate 30 passengers at the most.
10.   A yellow bus can accommodate 20 passengers at the most.
11.   The destination point for a passenger is always at least one point after the boarding point, where the boarding point is either {A, B, C, D, E, F}.
12.   A red bus is followed by a green bus which is followed by a yellow bus in equal interval of 5 min. Each bus waits at a particular stop for 5 minutes, leaving as soon as the next bus arrives at the stop.

The objective is to ensure the passengers reach safely to their respective destinations. Given a file containing all passenger information for a particular day in the format: <type of passenger> <name of passenger> <boarding point> <destination point>. For each boarding point, the queue of passengers is in the same order as the passenger information in the file. You need to print out the following:
1. Total fuel lost by each bus type.
2. Bus type and Bus number by which each passenger travelled, where a bus number is assigned incrementally for the buses that travel starting from 1.

Design: You need to apply the principles of inheritance and/or polymorphism.

NOTE: This is a simpler version of the bus routing problem for the final exam, in the sense that the strategy followed by each bus is mentioned in the 11th condition.