Q7 : Hyperloop Passenger Booking

Problem :

You are to program a passenger booking system for a hyperloop transport of a particular station.

Assumptions

1. All the hyperloop routes & the starting station will be given as input. *(See the below input section for details)*
2. Assumptions is that, the distance and time taken travel a route is constant.
3. A pod can travel from one connection to another in any direction in the given route. (i.e both A to B and B to A)
4. **One pod can accommodate only one passenger at a time.**
5. Passengers will be booked to their pods one by one.
    a. All passengers will start from the given starting station.
    b. Whenever a pod is started, the oldest person in the queue will boarding pod first.
6. Passengers can arrive at any time as well as pods can start at any time.
7. Assume infinite supply of pods and collision will never happen.

System Logic :

Whenever a pod is started, the pod should pickup

- the oldest person from the passenger queue and
- take the route which has minimum interconnections

The command line should handle the following Commands

INIT
ADD_PASSENGER
START_POD
PRINT_Q

The arguments and details of the commands are mentioned below.

1. **INIT** Command - Initializes the system with
    a. Number of interconnecting routes (**N**) and the Starting station.
    b. Next **N** lines denotes connection between two interconnections.

    Without initializing - All other commands should throw proper error.

2. **ADD_PASSENGER** command adds passenger to the line.
    a. **ADD_PASSENGER X** adds **X** number of passengers to the line. **X** lines following the **ADD** command denotes the passenger's name, age and destination
    b. NAME AGE DEST

3. **START_POD** command starts pod with a passenger having highest age to his destination following the minimum interconnection points. Print the passenger name and route.
    a. **START_POD X** starts **X** number of passengers of highest age. (**X** lines are printed with name and route)
    b. NAME ROUTE

4. **PRINT_Q** command prints the number of passengers and their details who are remaining in the queue.
    a. COUNT
    b. NAME AGE

EXAMPLE

Input:	**Output:**
INIT 7 A A B A C B D B C B E C E D E	
ADD_PASSENGER 1 RAVI 22 C	
ADD_PASSENGER 2 HARI 33 D BALA 10 E	
START_POD 1	***HARI A B D***
PRINT_Q	***2*** ***RAVI 22*** ***BALA 10***
ADD_PASSENGER 1 KATHIR 22 B	
PRINT_Q	***3*** ***RAVI 22*** ***BALA 10*** ***KATHIR 22***
START_POD 2	***RAVI A C*** ***KATHIR A B***
START_POD 1	***BALA A B E OR (A C E)***