

Data Structure Lab

Linked List

Create a passenger reservation system for an airline using linked lists. Create **one linked list for each flight**, which will have its unique flight number. Each node of a linked list will have **passenger name**. You have to develop code

- i) To enter passenger data for a specified flight.
- ii) To have a provision of adding new passengers on the list.
- iii) To enable passengers to cancel their flights.
- iv) To indicate number of passengers for each flight.
- v) To print names of passengers for each flight.

The first line of input data file will have an integer indicating number of flights followed by names of flights. Each line of the file after that will contain an operation to be carried out on a specified flight. Operation codes are indicated below:

1 – Booking a reservation. This will be followed by flight number, number of passengers to be booked, names of passengers (first names only).

2 - Cancelling a reservation. This will be followed by flight number, number of passengers to be cancelled, names of passengers.

3-printing names of passengers on specified flight, if there is no passenger, then Print 'No Passenger'

4- Print number of passengers on specified flight, if there is no passenger, then Print '0'.

Each operation code will be followed by flight number (and name of passenger if needed)

Sample input file (input.txt)

2 A1 A2
1 A1 4 Raja Mohan Phalguni Mahima
1 A2 3 Sunder Rashmi Srikant
3 A1
2 A1 1 Phalguni
1 A2 1 Mohit
4 A2
2 A1 1 Raja
3 A1

Sample Output (output.txt)

Raja Mohan Phalguni Mahima
4
Mohan Mahima

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Submission Guidelines:

The project name should be your enrolment ID, e.g. 'E16CSEXXX.java'. Input file name should be 'input.txt' and output file name should be 'output.txt'.

Every assignment submitted by the student would carry

- his/her name
- Enrolment number
- Batch number
- Mobile number
- Home address.

It should also carry the following statement:

"I have done this assignment on my own. I have not copied any code from another student or any online source. I understand if my code is found similar to somebody else's code, my case can be sent to the Disciplinary committee of the institute for appropriate action."