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| Problem Name: **Amazon Logistics** |
| Problem Statement: Amazon Logistics (AMZL) delivers packages and smiles to Amazon customers every day. On the occasion of the Dussehra and Diwali festivals, the amazon has launched Amazon Great Indian Festival, to cope with the large number of orders Delivery associate prepares the list of orders based on location. Every time he finds a new packet, he adds details at the end of the list. A Delivery associate will deliver packets to specified address. Everyday Delivery associate starts distribution of the Orders at 10 .00 am in the Lingarajnagar colony (In the order houses are connected) and returns to the Stock office at 5.00 pm. Before submitting the summary to the manager, he will calculate the amount collected from delivered packets. End of the day he removes the Packets where the price is less than 500. (Solve using Queues) |
| Input Format:  First line indicates N number of Packets to be delivered.  Next N lines are details of Packets. |
| Constraints:  0<N<10^5. |
| Output Format:  Display all the packet details to be delivered.  Display the total amount.  Display details of packets deleted. |
| Sample Input 0:  4  121 Ram 2000  131 Seeta 1000  141 Laxman 250  151 jenny 4000  Sample Output 0:  121 Ram 2000  131 Seeta 1000  141 Laxman 250  151 jenny 4000  7250  141 Laxman 250 |
| Sample Input 1:  -1  Sample Output 1:  Invalid Input |
| Sample Input 2:  -20  Sample Output 2:  Invalid Input |
| Sample Input 3:  2  131 Suresh 2500  141 Ramesh 3000  Sample Output 3:  131 Suresh 2500  141 Ramesh 3000  5500  0 |
| Sample Input 4:  1  121 Harish 300  Sample Output 4:  121 Harish 300  300  121 Harish 300 |
| Sample Input 5:  3  111 Kavita 6000  121 Savita 3000  131 Anita 200  Sample Output 5:  111 Kavita 6000  121 Savita 3000  131 Anita 200  9200  131 Anita 200 |
| Sample Input 6:  -90  Sample Output 6:  Invalid Input |

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| Question Name: **Big Mishra Tokens** |
| Problem definition: Big Mishra Pedha in Lamington Road, Hubli is a top player in the category of Sweet Shops in Hubli. This well-known establishment acts as a one-stop destination serving customers. The manager at Big Mishra issues tokens for the items available at the counter on a first come first serve basis (Items and Price as follows: S-Samosa-Rs 15, K-Kachori-Rs 20, V-VadaPav-Rs 25, P-PavBhaji-Rs 50, D-Dhabeli-Rs 30). If a customer wants to order any food once again, he has to stand in the queue again. Calculate the total amount collected on that day. Display the details of items which have been purchased greater than or equal to 10.  (Solve Using Queue) |
| Input Format:  The first line indicates the N number of item details.  Next N lines are details of the order (token ID, Item type, quantity). |
| Constraints:  0<N<20 |
| Output Format  Display all the items.  Display the total amount.  Display the details of the customers who ordered greater than or equal to 10 Dhabalis. |
| Sample Input 1:  3  101 K 3  102 D 10  103 P 2  Sample Output 1:  101 K 3  102 D 10  103 P 2  460  102 D 10 |
| Sample Input 2:  -6  Sample Output 2:  Invalid Input |

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| Question Name: **COVID 19 vaccination** |
| Problem Definition: The rapid development of vaccines against COVID 19 represents a huge achievement and offers hope of ending the global pandemic. The Govt of India has announced free distribution of vaccines across the country. To avail this opportunity there is long line of people in front of Primary Health Centres and Govt hospitals. The line consists of people to take different dosages of vaccines (1st,2nd, Booster). Help the medical officer to manage the crowd so that he should be able to take the count of people with 2 doses completed. Display the total number of Males getting vaccinated on that day. (Solve Using Queue) |
| Input Format:  The first line contains N number of people.  Next N lines are details of people (Aadhar id, Gender, No of Dosages, age). |
| Constraints:  0<N<10 |
| Output Format  Display all people's details.  Display the count of people with 2 doses completed.  Display the count of males getting vaccinated on that day. |
| Sample Input 1:  3  1234 M 2 29  1111 F 1 20  2222 M 2 46  Sample Output 1:  1234 M 2 29  1111 F 1 20  2222 M 2 46  2  2 |
| Sample Input 2:  1  4321 F 2 29  Sample Output 2:  4321 F 2 29  1  0 |
| Sample Input 3:  -20  Sample Output 3:  Invalid Input |

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| Question Name: **Library Book Renewal** |
| Problem Definition: KLE IMSR has implemented a new library management system to ease the various transactions in the college library. Every day N number of students are queued up at the library desk to return the books. In the queue there are some students with books having QR code and others with no QR code. If the student at the front of the queue has book with QR code, returns the books and leaves immediately. A student having book without QR code, stands again at the end of the queue. Your task is to display the students waiting in queue having book without QR code. Assume books having QR code status as 1 and 0 for books not having QR codes. (Solve Using Queue) |
| The first line contains N number of students.  Second line contains details of books (student-Id, Book name, QRstatus). |
| Constraints:  0<N<10^5 |
| Output Format  Display all the students’ queue.  Display the students waiting in queue having book without QR code. |
| Sample Input 1:  4  101 LD 1  121 CD 0  131 ML 1  141 DL 0  Sample Output 1:  101 LD 1  121 CD 0  131 ML 1  141 DL 0  121 CD 0  141 DL 0 |
| Sample Input 2:  0  Sample Output 2:  Invalid Input |