Problem 1

An e-commerce website **stores items** in a shopping cart. When a customer **removes** an item, it should be **deleted** from the cart and the updated cart should be **displayed**.You have to make this system using a singly linked list.

Task:

- Insert item **names** and **prices** at the beginning
- **Remove** a specific item
- Display remaining items with prices
- Show **total cart value** before and after removal

INPUT	**OUTPUT**
Enter item name and price (type 0 0 to stop): Monitor 15000 USB Cable 500 Monitor 12000 Keyboard 3500 Mouse 1200 0 0 Product to remove: Monitor	Cart Items: Mouse - 1200 Keyboard - 3500 Monitor - 12000 USB Cable - 500 Monitor - 15000 Total: 32200 Taka Monitor Removed Successfully! (First occurrence removed) Updated Cart: Mouse - 1200 Keyboard - 3500 USB Cable - 500 Monitor - 15000 Total: 20200 Taka
Enter item name and price (type 0 0 to stop): Laptop 50000 Phone 25000 Headphones 3000 Charger 1500 0 0 Product to remove: Headphones	Cart Items: Charger - 1500 Headphones - 3000 Phone - 25000 Laptop - 50000 Total: 79500 Taka Headphones Removed Successfully! Updated Cart: Charger - 1500 Phone - 25000 Laptop - 50000 Total: 76500 Taka

Enter item name and price (type 0 0 to stop): Router 8500 Modem 6000 Switch 4000 0 0 Product to remove: (empty input)	Cart Items: Switch - 4000 Modem - 6000 Router - 8500 Total: 18500 Taka Product name cannot be empty! Cart items remained unchanged. Cart Items: Switch - 4000 Modem - 6000 Router - 8500 Total: 18500 Taka
Enter item name and price (type 0 0 to stop): Camera 45000 Speaker 8000 Microphone 5000 Stand 2000 0 0 Product to remove:Stand	Cart Items: Stand - 2000 Microphone - 5000 Speaker - 8000 Camera - 45000 Total: 60000 Taka Stand Removed Successfully! Updated Cart: Microphone - 5000 Speaker - 8000 Camera - 45000 Total: 58000 Taka
Enter item name and price (type 0 0 to stop): Router 8500 Modem 6000 SSD 12000 RAM 4500 0 0 Product to remove: Printer	Cart Items: RAM - 4500 SSD - 12000 Modem - 6000 Router - 8500 Total: 31000 Taka Item 'Printer' not found in cart! Cart remains unchanged: RAM - 4500 SSD - 12000 Modem - 6000 Router - 8500 Total: 31000 Taka

Problem 2

A cricket scorekeeper records player names and their runs. At the end of the match, display only batsmen who scored more than 20 runs to identify top performers.Implement this using singly linked list.

Task:

- Insert each player's name and run at the beginning.
- Display only players with runs > 20

Input	**Output**
Enter player name and runs: (type 0 0 to stop): Sakib 45 Tamim 18 Mushfiqur 32 Afif 15 Litton 28 0 0	Top Performers (Runs > 20): Litton - 28 runs Mushfiqur - 32runs Sakib - 45 runs
Enter player name and runs (type 0 0 to stop): Virat 50 Rohit 35 Pant 22 Bumrah 5 0 0	Top Performers (Runs > 20): Pant - 22 runs Rohit - 35 runs Virat - 50 runs
Enter player name and runs (type 0 0 to stop): Kane 19 Smith 17 Warner 20 0 0	Top Performers (Runs > 20): No one!
Enter player name and runs (type 0 0 to stop): Raina 35 Dhoni 35 Yuvraj 28 Sehwag 28 Kumble 10 0 0	Top Performers (Runs > 20): Sehwag - 28 runs Yuvraj - 28 runs Dhoni - 35 runs Raina - 35 runs

Enter player name and runs (type 0 0 to stop): Arafat 67 Mustafiz 8 Taskin 12 Shoriful 19 Fizzy 31 Hasan 24 Mahmud 15 Tanzim 22 Rishad 28 Hridoy 35 0 0	Top Performers (Runs > 20): Tanzim - 22 runs Hasan - 24 runs Rishad - 28 runs Hridoy - 35 runs Fizzy - 31 runs Arafat - 67 runs

Problem 3

A restaurant maintains a waiting list for table reservations (use Doubly Linked List). When a table becomes available, the customer at a given position is called and removed from the waiting list.

Task:

- **Insert** all customers by their name in the waiting list
- **Take only ONE input** - the position number of the customer to be called
- **Display** the updated waiting list after removal

Input	**output**
Enter waiting list : Karim, Fatima, Hasan, Aisha, Rashid, Nura Position to call: 3	Customer called for table: Hasan Updated waiting list: Karim <-> Fatima <-> Aisha <-> Rashid <-> Nura Queue size: 5 customers waiting
Enter waiting list: Jamal, Sana, Riyad, Nazia, Imran Position to call: 8	No such position ! Waiting list remains unchanged: Updated waiting list: Jamal <->Sana <-> Riyad <-> Nazia <-> Imran Queue size: 5 customers waiting

Enter waiting list: Arif, Nasrin, Karim, Mehnaz, Samir, Joya Position to call: 6	Customer called for table: Joya Updated waiting list: Arif <-> Nasrin <-> Karim <-> Mehnaz <-> Samir Queue size: 5 customers waiting
Enter waiting list: Faisal Position to call: 1	Customer called for table: Faisal Updated waiting list: (Empty) Queue size: 0 customers waiting
Enter waiting list: Rashed, Hafsa, Nasim, Sumaya, Farah Position to call: 0	Position must be greater than 0! Waiting list remains unchanged: Rashed <-> Hafsa <-> Nasim <-> Sumaya <-> Farah Queue size: 5 customers waiting