Assignment #3

Task: Bank Service Queue Management System.

Description:

I mplement a queue data structure to simulate a simple bank service system. Customers will join the queue and be served in the order they arrive (FIFO). You must use **your own linked list-based queue implementation** (not Java's built-in classes).

The program must provide a **menu interface** that allows the user to perform the following operations:

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    Bank Service Queue Management Menu

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1. Add new customer to the queue

2. Serve next customer

3. Show number of waiting customers

4. Display all waiting customers

5. Calculate total transaction amount in the queue

6. Count how many are doing 'Deposit' or 'Withdraw'

7. Exit

Customer Class:

Each Obj should have:

- **name: String**

- **id: int**

- **transactionType: String,** options: Deposit, Withdraw, Balance Inquiry

- **amount: double**

- **isPriority : Boolean,** true if the customer should be treated with priority (e.g., elderly or disabled)

- **toString()**

CustomerQueue Class:

- **Sub class: Node**

- **enqueue ()**

- **enqueuePriority ()**

- **dequeue ()**

- **isEmpty()**

- **size()**

- **toString()**

- **getTotalTransactionAmount ()**

- **countByTransactionType ()**

- **front: Node**

- **rear: Node**

- **size: int**