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Course Name: Computer Lab 201 (Data Structure)

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Assignment 8:

Problem I: Implement Queue using a Linked List, where each element of the Queue is a student record which consists of Student Name, Roll Number, and Gender.

Implement the following functions:

- **Enqueue:** Addition of an element to the queue.
Adding an element will be performed after checking whether the queue is full or not. If it is then print "Overflow".
- **Dequeue:** Removal of an element from the queue.
An element can only be deleted when there is at least an element to delete.
Check underflow conditions.
- **Front:** Get the front element from the queue i.e. arr[front] if the queue is not empty.
- **Display:** Print all elements of the queue. If the queue is non-empty, traverse and print all the elements from index front to rear.

1. Now traverse the Queue and extract the Students name based on gender.
 2. Those extracted student names should be enqueued in a separate Queue (this queue should be implemented using an array).
 3. Print two different Queues.
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