Data Structures COC - 2073
Lab Plan – 6
(Queue Implementation Using Array and Link List)

Exercise-1:

Following is the declaration of *Queue* class and its member functions. Write the code to implement the definitions of these member functions by using Array and Link List.

```
class LinkedQueue
{
    private:
        Node* Front;
        Node* Rear;

    public:
        LinkedQueue();
        void Enqueue(int);
        void Dequeue();
        void PrintQueue();
        bool IsEmpty();
        int GetFront();
};
```

Exercise-2:

Test the Queue class with the following *main*() function:

```
int main()
{
   LinkedQueue lst;
   lst.PrintQueue();

   lst.Enqueue(100);
   lst.PrintQueue();

   lst.Enqueue(200);
   lst.PrintQueue();

   lst.Enqueue(300);
   lst.PrintQueue();

   lst.Enqueue(400);
   lst.PrintQueue();
      cout << "The Fornt element is " << lst.GetFront() << "\n\n";
   }
```

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Exercise-3:

Write a menu based program which should implement Queue by using array with following options.

1. Insert Element into Queue (Press 1)
2. Delete element from queue (Press 2)
3. Display the queue (Press 3)
4. Exit(Press 4)