

```
#include <iostream>
#include "GenericList.cc"

using namespace std;

template <class qtype>
class Queue
{
    private:
        List<qtype> qlist;
    public:
        Queue() {}

        Queue(const Queue &q)
        {
            *this = q;
        }

        void operator=(const Queue &q)
        {
            qlist = q.qlist;
        }

        void Enqueue(qtype data)
        {
            qlist.Last();
            qlist.InsertAfter(data);
        }

        qtype Dequeue()
        {
            qtype temp = Peek();
            qlist.Remove();
            return temp;
        }

        qtype Peek()
        {
            qlist.First();
            return qlist.GetValue();
        }

        int Size()
        {
            return qlist.GetSize();
        }

        bool IsEmpty()
        {
            return qlist.IsEmpty();
        }

        bool IsFull()
        {
            return qlist.IsFull();
        }

        Queue operator+(const Queue &q)
        {
            Queue nu;
            nu.qlist = qlist + q.qlist;
            return nu;
        }

        bool operator==(const Queue &q)
        {
            return (qlist == q.qlist);
        }
}
```

```
    }

    bool operator!=(const Queue &q)
    {
        return !(*this == q);
    }

    friend ostream& operator<<(ostream& out, const Queue& q)
    {
        out << q.qlist;
        return out;
    }

};
```