

## Implement Queue using two stacks

```
#include <bits/stdc++.h>
using namespace std;

struct Queue {
    stack<int> s1, s2;

    // Enqueue an item to the queue
    void enQueue(int x)
    {
        // Push item into the first stack
        s1.push(x);
    }

    // Dequeue an item from the queue
    int deQueue()
    {
        // if both stacks are empty
        if (s1.empty() && s2.empty()) {
            cout << "Q is empty";
            exit(0);
        }

        // if s2 is empty, move
        // elements from s1
        if (s2.empty()) {
            while (!s1.empty()) {
                s2.push(s1.top());
                s1.pop();
            }
        }
    }
};
```

```
        }  
    }  
  
    // return the top item from s2  
    int x = s2.top();  
    s2.pop();  
    return x;  
}  
};
```

// Driver code

```
int main()  
{  
    Queue q;  
    q.enqueue(1);  
    q.enqueue(2);  
    q.enqueue(3);  
  
    cout << q.dequeue() << '\n';  
    cout << q.dequeue() << '\n';  
    cout << q.dequeue() << '\n';  
  
    return 0;  
}
```