

## Listing 4-7

## Using Iterators to Implement Enumeration

```
using System;
using System.Collections.Generic;
public class GenStack<T>: IEnumerable<T>
{
    // Use generics type parameter to specify array type
    private T[] stackCollection;
    private int count = 0;
    // Constructor
    public GenStack(int size)
    {
        stackCollection = new T[size];
    }
    // (1) Iterator
    public IEnumerator<T> GetEnumerator()
    {
        for (int i = 0; i < count; i++)
        {
            yield return stackCollection[i];
        }
    }
    // (2) Property to return the collection in reverse order
    public IEnumerable<T> Reverse
    {
        get
        {
            for (int i = count - 1; i >= 0; i--)
            {
                yield return stackCollection[i];
            }
        }
    }
    public void Add(T item)
    {
        stackCollection[count] = item;
        count += 1;
    }
    // other class methods go here ...
}
```