C# - Stack Class

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It represents a last-in, first out collection of object. It is used when you need a last-in, first-out access of items. When you add an item in the list, it is called pushing the item and when you remove it, it is called popping the item.

Methods and Properties of the Stack Class

The following table lists some commonly used **properties** of the **Stack** class –

Sr.No.	Property & Description
1	**Count** Gets the number of elements contained in the Stack.

The following table lists some of the commonly used **methods** of the **Stack** class –

Sr.No.	Method & Description
1	**public virtual void Clear();** Removes all elements from the Stack.
2	**public virtual bool Contains(object obj);** Determines whether an element is in the Stack.
3	**public virtual object Peek();** Returns the object at the top of the Stack without removing it.
4	**public virtual object Pop();** Removes and returns the object at the top of the Stack.
5	**public virtual void Push(object obj);** Inserts an object at the top of the Stack.
6	**public virtual object[] ToArray();** Copies the Stack to a new array.

Example

The following example demonstrates use of Stack –

Live Demo

```
using System;
using System.Collections;

namespace CollectionsApplication {
   class Program {
      static void Main(string[] args) {
         Stack st = new Stack();

         st.Push('A');
         st.Push('M');
         st.Push('G');
         st.Push('W');

         Console.WriteLine("Current stack: ");
         foreach (char c in st) {
            Console.Write(c + " ");
         }
         Console.WriteLine();

         st.Push('V');
         st.Push('H');
         Console.WriteLine("The next poppable value in stack: {0}", st.Peek());
         Console.WriteLine("Current stack: ");

         foreach (char c in st) {
            Console.Write(c + " ");
         }

         Console.WriteLine();

         Console.WriteLine("Removing values ");
         st.Pop();
```

- C# - Multithreading

C# Useful Resources

- C# - Questions and Answers
- C# - Quick Guide
- C# - Useful Resources
- C# - Discussion

Selected Reading

- UPSC IAS Exams Notes
- Developer's Best Practices
- Questions and Answers
- Effective Resume Writing
- HR Interview Questions
- Computer Glossary
- Who is Who

```
         st.Pop();
         st.Pop();
         
         Console.WriteLine("Current stack: ");
         foreach (char c in st) {
            Console.Write(c + " ");
         }
      }
   }
}
```

When the above code is compiled and executed, it produces the following result −

```
Current stack:
W G M A
The next poppable value in stack: H
Current stack:
H V W G M A
Removing values
Current stack:
G M A
```

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