

Ensures that a given array can hold up to minCapacity elements.

```
/*
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*/
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;

namespace DiscoveryLogic.Common.Numeric
{
    public class Arrays : System.Object
    {
        ///

        Ensures that a given array can hold up to minCapacity
        elements.

        ///
        /// Returns the identical array if it can hold at least the
        number of elements specified.
        /// Otherwise, returns a new array with increased capacity
        containing the same elements, ensuring
```

```
/// that it can hold at least the number of elements specified
by
/// the minimum capacity argument.
///
///
/// the desired minimum capacity.
/// public static sbyte[] ensureCapacity(sbyte[] array, int
minCapacity)
{
int oldCapacity = array.Length;
sbyte[] newArray;
if (minCapacity > oldCapacity)
{
int newCapacity = (oldCapacity * 3) / 2 + 1;
if (newCapacity < minCapacity) { newCapacity = minCapacity; }
newArray = new sbyte[newCapacity]; Array.Copy(array, 0,
newArray, 0, oldCapacity); } else { newArray = array; } return
newArray; } ///
Ensures that a given array can hold up to minCapacity
elements.
///
/// Returns the identical array if it can hold at least the
number of elements specified.
/// Otherwise, returns a new array with increased capacity
containing the same elements, ensuring
/// that it can hold at least the number of elements specified
by
/// the minimum capacity argument.
///
///
/// the desired minimum capacity.
/// public static short[] ensureCapacity(short[] array, int
minCapacity)
{
int oldCapacity = array.Length;
short[] newArray;
if (minCapacity > oldCapacity)
```

```
{  
    int newCapacity = (oldCapacity * 3) / 2 + 1;  
    if (newCapacity < minCapacity) { newCapacity = minCapacity; }  
    newArray = new short[newCapacity]; Array.Copy(array, 0,  
    newArray, 0, oldCapacity); } else { newArray = array; } return  
newArray; } ///  
Ensures that a given array can hold up to minCapacity  
elements.  
///  
/// Returns the identical array if it can hold at least the  
number of elements specified.  
/// Otherwise, returns a new array with increased capacity  
containing the same elements, ensuring  
/// that it can hold at least the number of elements specified  
by  
/// the minimum capacity argument.  
///  
///  
/// the desired minimum capacity.  
/// public static bool[] ensureCapacity(bool[] array, int  
minCapacity)  
{  
    int oldCapacity = array.Length;  
    bool[] newArray;  
    if (minCapacity > oldCapacity)  
    {  
        int newCapacity = (oldCapacity * 3) / 2 + 1;  
        if (newCapacity < minCapacity) { newCapacity = minCapacity; }  
        newArray = new bool[newCapacity]; Array.Copy(array, 0,  
        newArray, 0, oldCapacity); } else { newArray = array; } return  
newArray; } ///  
Ensures that a given array can hold up to minCapacity  
elements.  
///  
/// Returns the identical array if it can hold at least the  
number of elements specified.
```

```
/// Otherwise, returns a new array with increased capacity
containing the same elements, ensuring
/// that it can hold at least the number of elements specified
by
/// the minimum capacity argument.
///
///

/// the desired minimum capacity.
/// public static char[] ensureCapacity(char[] array, int
minCapacity)
{
int oldCapacity = array.Length;
char[] newArray;
if (minCapacity > oldCapacity)
{
int newCapacity = (oldCapacity * 3) / 2 + 1;
if (newCapacity < minCapacity) { newCapacity = minCapacity; }
newArray = new char[newCapacity]; Array.Copy(array, 0,
newArray, 0, oldCapacity); } else { newArray = array; } return
newArray; } ///
Ensures that a given array can hold up to minCapacity
elements.
///
/// Returns the identical array if it can hold at least the
number of elements specified.
/// Otherwise, returns a new array with increased capacity
containing the same elements, ensuring
/// that it can hold at least the number of elements specified
by
/// the minimum capacity argument.
///
///

/// the desired minimum capacity.
/// public static double[] ensureCapacity(double[] array, int
minCapacity)
```

```
{  
int oldCapacity = array.Length;  
double[] newArray;  
if (minCapacity > oldCapacity)  
{  
    int newCapacity = (oldCapacity * 3) / 2 + 1;  
    if (newCapacity < minCapacity) { newCapacity = minCapacity; }  
    newArray = new double[newCapacity]; //for (int i =  
    oldCapacity; --i >= 0; ) newArray[i] = array[i];  
    Array.Copy(array, 0, newArray, 0, oldCapacity);  
}  
else  
{  
    newArray = array;  
}  
return newArray;  
}  
  
///
```

Ensures that a given array can hold up to minCapacity elements.

```
///  
/// Returns the identical array if it can hold at least the  
/// number of elements specified.  
/// Otherwise, returns a new array with increased capacity  
/// containing the same elements, ensuring  
/// that it can hold at least the number of elements specified  
/// by  
/// the minimum capacity argument.  
///
```

```
///  
/// the desired minimum capacity.
```

```
/// public static float[] ensureCapacity(float[] array, int  
minCapacity)  
{  
int oldCapacity = array.Length;  
float[] newArray;  
if (minCapacity > oldCapacity)
```

```
{  
    int newCapacity = (oldCapacity * 3) / 2 + 1;  
    if (newCapacity < minCapacity) { newCapacity = minCapacity; }  
    newArray = new float[newCapacity]; Array.Copy(array, 0,  
    newArray, 0, oldCapacity); } else { newArray = array; } return  
newArray; } ///  
Ensures that a given array can hold up to minCapacity  
elements.  
///  
/// Returns the identical array if it can hold at least the  
number of elements specified.  
/// Otherwise, returns a new array with increased capacity  
containing the same elements, ensuring  
/// that it can hold at least the number of elements specified  
by  
/// the minimum capacity argument.  
///  
///  
/// the desired minimum capacity.  
/// public static int[] ensureCapacity(int[] array, int  
minCapacity)  
{  
    int oldCapacity = array.Length;  
    int[] newArray;  
    if (minCapacity > oldCapacity)  
    {  
        int newCapacity = (oldCapacity * 3) / 2 + 1;  
        if (newCapacity < minCapacity) { newCapacity = minCapacity; }  
        newArray = new int[newCapacity]; Array.Copy(array, 0,  
        newArray, 0, oldCapacity); } else { newArray = array; } return  
newArray; } ///  
Ensures that a given array can hold up to minCapacity  
elements.  
///  
/// Returns the identical array if it can hold at least the  
number of elements specified.
```

```
/// Otherwise, returns a new array with increased capacity
containing the same elements, ensuring
/// that it can hold at least the number of elements specified
by
/// the minimum capacity argument.
///
///

/// the desired minimum capacity.
/// public static long[] ensureCapacity(long[] array, int
minCapacity)
{
int oldCapacity = array.Length;
long[] newArray;
if (minCapacity > oldCapacity)
{
int newCapacity = (oldCapacity * 3) / 2 + 1;
if (newCapacity < minCapacity) { newCapacity = minCapacity; }
newArray = new long[newCapacity]; Array.Copy(array, 0,
newArray, 0, oldCapacity); } else { newArray = array; } return
newArray; } ///
Ensures that a given array can hold up to minCapacity
elements.
///
/// Returns the identical array if it can hold at least the
number of elements specified.
/// Otherwise, returns a new array with increased capacity
containing the same elements, ensuring
/// that it can hold at least the number of elements specified
by
/// the minimum capacity argument.
///
///

/// the desired minimum capacity.
///         public      static      System.Object[]
ensureCapacity(System.Object[] array, int minCapacity)
```

```
{  
int oldCapacity = array.Length;  
System.Object[] newArray;  
if (minCapacity > oldCapacity)  
{  
int newCapacity = (oldCapacity * 3) / 2 + 1;  
if (newCapacity < minCapacity) { newCapacity = minCapacity; }  
newArray = new System.Object[newCapacity]; Array.Copy(array,  
0, newArray, 0, oldCapacity); } else { newArray = array; }  
return newArray; } } [/csharp]
```