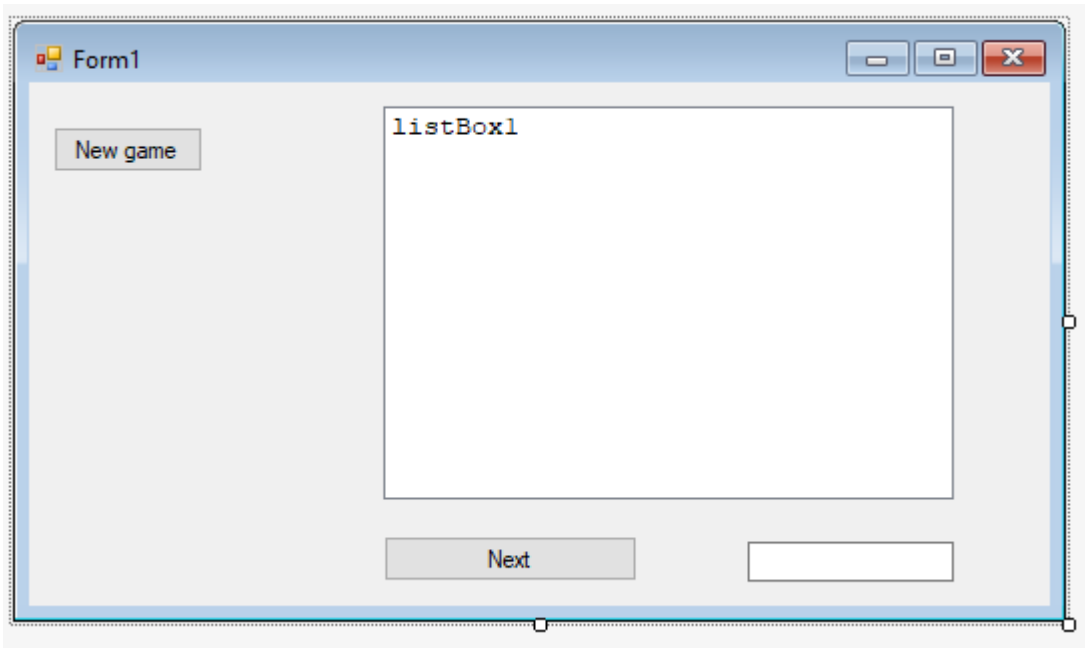


2A win bingonumbers

To learn about functions, how to pass parameters.



```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;

namespace _2A_bingo // the project
{
    public partial class Form1 : Form // the class Form1
    {
        // global variables - can be used all over in the class
        int[] array = new int[91]; // declare an array of integers
        Random ran = new Random(); // get the instance of random to ran
        public Form1() // the start function - runs ones when program startet
        {
            InitializeComponent(); // creates the Form1
            for (int i = 0; i < 91; i++) // loop from 1 to 90
                array[i] = 0; // set all the elements to zero
        }

        private void button1_Click(object sender, EventArgs e)
        {
            // the get next number button
            int number = 0; // declare and assign a local variable
            // this can only be used within this function
            if(!full()) // call the function full
            {
                // ask if all numbers are taken - if not
                number = getnext(); // call the function getnext to get a random number
            }
        }
    }
}
```

```

        adjarray(number); // call the function adjarray to update the array
        dispboard(); // call the function dispboard - display all numbers
    }
    else // all numbers taken
        MessageBox.Show("Board is Full"); // show the user
}

private int getnext() // function to get a random number
{
    // which is not already taken
    //MessageBox.Show("getnext"); // line used to debug
    int a = 0; // declare and assign a local variable
    do // loop while this (array[a] !=0) is true
    {
        a = ran.Next(1, 91); // gives a random number 1 to 90
        //MessageBox.Show("A = "+a.ToString()); // used for debug
    }
    while (array[a] !=0); // end of the loop
    maskedTextBox1.Text = "Next number = " + a.ToString(); // show number
    return a; // Return the new number to the calling routine
}

private void adjarray(int tal) // function to update the array
{
    array[tal] = tal; // set the indexed element to the value
}

private bool full() // the function to check if all numbers is taken
{
    int i; // declare a local variable
    bool result = true; //declare a local variable set default value true
    for(i=1;i<91;i++) // loop from 0 to 90
    {
        if (array[i] == 0) // if a number is not taken
            result = false; // change the result value to false
    }
    return result; // return true or false to the calling routine
}

private string dispnumber(int b) // function to format a number
{
    // the input parameter is a number
    string c = ""; // declare and assign a local string variable
    c += " "; // add a space to the string
    if (b < 10) // if num'ber < 10
        c += " "; // add another space
    if (b == 0) // if number is equal to zero
        c += " "; // add another space
    else // if number not equal to zero
        c += b.ToString(); // add the number to the string
    return c; // returns the string to the calling routine
}

private void dispboard() // function to display all numbers
{
    // to the listbox

    int i; // declare a local variable
    string str=""; // declare and assign a local variable
    listBox1.Items.Clear(); // clear the listbox
    for(i=1;i<91;i++) // Loop from 1 to 90
    {
        str += dispnumber(array[i]); // call dispnumber
        // get a string (str) with the formatted number
        if (i % 10 == 0) // if the (index/10) gives zero to rest

```

```
        {
            // 10, 20, 30 and so on
            //MessageBox.Show(i + "*" + str + "*"); // used to debug
            listBox1.Items.Add(str); // add the string to the listbox
            str = ""; // clear the string - ready for a new line
        }
    }

private void button2_Click(object sender, EventArgs e)
{
    // teh new game button
    for (int i = 0; i < 91; i++) // loop from 1 to 90
        array[i] = 0; // clear the array
    listBox1.Items.Clear(); // clear the listbox
}
}
```