**Part 68 - Making method parameters optional using method overloading**

In this video, we will discuss making method parameters optional using **method overloading**  
  
**This method allows us to add any number of integers**

public static void AddNumbers(int firstNumber, int secondNumber,   
    int[] restOfNumbers)  
{  
    int result = firstNumber + secondNumber;  
    if (restOfNumbers != null)  
    {  
        foreach(int i in restOfNumbers)  
        {  
            result += i;  
        }  
    }  
  
    Console.WriteLine("Sum = " + result);  
}

**If we want to add 5 integers** - 10, 20, 30, 40 and 50. We call the method as shown below.  
AddNumbers(10, 20, new int[]{30, 40, 50});  
  
**At the moment all the 3 parameters are mandatory.** If I want to add just 2 numbers, then I can invoke the method as shown below. Notice that, I am passing null as the argument for the 3rd parameter.  
AddNumbers(10, 20, null);  
  
We can make the 3rd parameter optional by overloading AddNumbers() function as shown below.  
public static void AddNumbers(int firstNumber, int secondNumber)  
{  
    AddNumbers(firstNumber, secondNumber, null);  
}  
  
Now, we have **2 overloaded versions** of AddNumbers() function. If we want to add just 2 numbers, then I can use the overloaded version of AddNumbers() function, that takes 2 parameters as shown below.  
AddNumbers(10, 20);  
  
If I want to add 3 or more numbers, then I can use the overloaded version of AddNumbers() function, that takes 3 parameters as shown below.  
AddNumbers(10, 20, new int[] { 30, 40 });