

# Utilize MyClass without assuming any prior knowledge

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/*
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by Herbert Schildt

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*/

// Utilize MyClass without assuming any prior knowledge.

using System;
using System.Reflection;

public class ReflectAssemblyDemo1 {
    public static void Main() {
        int val;
        Assembly asm = Assembly.LoadFrom("MyClasses.exe");

        Type[] alltypes = asm.GetTypes();

        Type t = alltypes[0]; // use first class found

        Console.WriteLine("Using: " + t.Name);

        ConstructorInfo[] ci = t.GetConstructors();

        // Use first constructor found.
        ParameterInfo[] cpi = ci[0].GetParameters();
        object reflect0b;

        if(cpi.Length > 0) {
            object[] consargs = new object[cpi.Length];

            // initialize args
            for(int n=0; n < cpi.Length; n++) consargs[n] = 10 + n * 20;
        }
    }
}
```

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// construct the object reflect0b = ci[0].Invoke(consargs); }  
else reflect0b = ci[0].Invoke(null); Console.WriteLine()  
Invoking methods on reflect0b."); Console.WriteLine(); //  
Ignore inherited methods. MethodInfo[] mi =  
t.GetMethods(BindingFlags.DeclaredOnly | BindingFlags.Instance  
| BindingFlags.Public) ; // Invoke each method.  
foreach(MethodInfo m in mi) { Console.WriteLine("Calling {0}"  
, m.Name); // Get the parameters ParameterInfo[] pi =  
m.GetParameters(); // Execute methods. switch(pi.Length) {  
case 0: // no args if(m.ReturnType == typeof(int)) { val =  
(int) m.Invoke(reflect0b, null); Console.WriteLine("Result is  
" + val); } else if(m.ReturnType == typeof(void)) {  
m.Invoke(reflect0b, null); } break; case 1: // one arg  
if(pi[0].ParameterType == typeof(int)) { object[] args = new  
object[1]; args[0] = 14; if((bool) m.Invoke(reflect0b, args))  
Console.WriteLine("14 is between x and y"); else  
Console.WriteLine("14 is not between x and y"); } break; case  
2: // two args if((pi[0].ParameterType == typeof(int)) &&  
(pi[1].ParameterType == typeof(int))) { object[] args = new  
object[2]; args[0] = 9; args[1] = 18; m.Invoke(reflect0b,  
args); } else if((pi[0].ParameterType == typeof(double)) &&  
(pi[1].ParameterType == typeof(double))) { object[] args = new  
object[2]; args[0] = 1.12; args[1] = 23.4; m.Invoke(reflect0b,  
args); } break; } Console.WriteLine(); } } }  
=====/* C#: The Complete Reference by Herbert Schildt Publisher:  
Osborne/McGraw-Hill (March 8, 2002) ISBN: 0072134852 */ // A  
file that contains three classes. Call this file MyClasses.cs.  
using System; class MyClass { int x; int y; public MyClass(int  
i) { Console.WriteLine("Constructing MyClass(int). "); x = y =  
i; show(); } public MyClass(int i, int j) {  
Console.WriteLine("Constructing MyClass(int, int). "); x = i;  
y = j; show(); } public int sum() { return x+y; } public bool  
isBetween(int i) { if((x < i) && (i < y)) return true; else  
return false; } public void set(int a, int b) {  
Console.Write("Inside set(int, int). "); x = a; y = b; show();  
} // Overload set. public void set(double a, double b) {
```

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Console.WriteLine("Inside set(double, double). "); x = (int) a; y  
= (int) b; show(); } public void show() {  
Console.WriteLine("Values are x: {0}, y: {1}", x, y); } }  
class AnotherClass { string remark; public AnotherClass(string  
str) { remark = str; } public void show() {  
Console.WriteLine(remark); } } public class Demo12 { public  
static void Main() { Console.WriteLine("This is a  
placeholder."); } } [/csharp]
```