
Exercise 03: C# Interfaces 1 - The very, very basics of interfaces

In this exercise, you will create and use a few simple C# interfaces and play around with these. They have absolutely no practical use and only exist to make you comfortable with interfaces in C#.

Exercise 1:

Create a new Visual Studio 2013 solution called Interfaces-1. Add a new C# class library project called DoStuff to the solution.

Add an interface named IDoThings to DoStuff. The interface shall contain the following method definitions:

```
void DoNothing()  
int DoSomething(int number)  
string DoSomethingElse(string input)
```

Exercise 2:

Add a class called DoHickey to the solution. DoHickey shall implement IDoThings. Each method shall write the class name, the method name and the argument (if any) to the console, e.g. "DoHickey::DoSomething(): 2"

Exercise 3:

Add a C# console application project called DoStuff.Application to the solution. This will be your *application* project which will use the DoStuff class library you created above. Add a reference to DoStuff in the DoStuff.Application project

In the Main() method in the new project, instantiate an IDoStuff reference to point to an object of class DoHickey, i.e.

```
IDoStuff myStuff = new DoHickey();
```

Call the methods of the DoHickey object using this interface reference.

Exercise 4:

Add a new class, DoDickey, to the DoStuff project. DoDickey must also implement IDoStuff.

Exercise 5

Change Main() in the project DoStuff.Application so that the user is asked if he wants a DoHickey or a DoDickey instance. Either way, the same IDoStuff must be used to call the methods of the created object.