– Lab 1.2 –

3.d.i.2.a.

```
.method private hidebysig static int32  Add(int32 a,
                                            int32 b) cil managed
{
  // Code size       9 (0x9)
  .maxstack  2                          //JIT should reserve 2 stack cells for this method.
  .locals init (int32 V_0)              //Local variable declaration.
  IL_0000:  nop                         //Do nothing (Can be used for debugging
                                        //or code optimization).
  IL_0001:  ldarg.0                     //Load the 1st argument on the evaluation stack.
  IL_0002:  ldarg.1                     //Load the 2nd argument on the evaluation stack.
  IL_0003:  add                         //Add the top 2 values on the stack and push their sum
                                        //back on the top of the stack.
  IL_0004:  stloc.0                     //Pop a value from the stack into the local variable.
  IL_0005:  br.s       IL_0007          //Branch to target (what happened to IL_0006?)
  IL_0007:  ldloc.0                     //Load the local variable on the evaluation stack.
  IL_0008:  ret                         //Return from method.
} // end of method Calc::Add
//NOTE:       Since the instruction "add" loads the method's return value (the sum) on the stack's top,
//            the local variable is probably used (in IL_0004 - IL_0007) for debugging purposes.
```

3.e.ii.

The file "calc.il" contains the manifest (metadata) and the IL code from the file "add.netmodule".
The file "calc.res" is a Win32 resource file, which was generated from the file "add.netmodule".

3.g.iii.1.

The class "Calc" is not recognized by the class "Program", because it was compiled separately, as a module. Therefore, this error can be fixed by explicitly adding the module file "calc.netmodule" during the compilation of the source file "program.cs".

3.g.iv.1.

Since "Add" and "Subtract" are **private** methods of the class "Calc", they cannot be accessed outside of it. To allow the class "Program" access to these methods, they have to be set as **public**.

3.g.x.3.

We see the metadata of the executable file “calc.exe”.