

```
1 using System;
2 using System.Collections.Generic;
3 using System.Diagnostics;
4 using System.IO;
5 using System.Linq;
6 using System.Text;
7 using System.Threading.Tasks;
8
9 namespace CASP_Standalone_Implementation.Src
10 {
11     class ConsoleWrapper
12     {
13         public static string CORE_DIR = Path.GetFullPath("../..../Core");
14
15         public static string ModuleId = "moduleid";
16         public static string CodeSnippet = "code";
17         public static string CodeFile = "codef";
18         public static string FunctionArgument = "args";
19         public static string SourceLanguage = "sourcelang";
20
21         public static bool Running
22         {
23             get
24             {
25                 return ActiveProcess != null;
26             }
27         }
28
29         static Process ActiveProcess = null;
30         static long lastRunTime = 0;
31
32         public static long LastRunTime
33         {
34             get
35             {
36                 return lastRunTime;
37             }
38         }
39
40         public static string GenerateRequest(params string[] data)
41         {
42             string ret = "";
43
44             foreach (string arg in data)
45             {
46                 ret += arg + " ";
47             }
48
49             return ret.Trim();
50         }
51
52         public static string GetArgument(string type, string data)
53         {
54             return "/" + type + "=\"" + data + "\"";
55         }
56
57         public static async Task<string> Execute(string request)
58         {
59             Stopwatch timer = new Stopwatch();
60             return await Task.Run(() =>
61             {
62                 string output = "";
63                 Kill();
64                 try {
65                     ActiveProcess = new Process();
66                     ActiveProcess.StartInfo.UseShellExecute = false;
```

```
67         ActiveProcess.StartInfo.RedirectStandardOutput = true;
68         ActiveProcess.StartInfo.CreateNoWindow = true;
69         ActiveProcess.StartInfo.WorkingDirectory = CORE_DIR;
70         ActiveProcess.StartInfo.FileName = CORE_DIR + "/CASP.exe";
71         ActiveProcess.StartInfo.Arguments = request;
72
73         timer.Start();
74
75         ActiveProcess.Start();
76         output = ActiveProcess.StandardOutput.ReadToEnd();
77         ActiveProcess.WaitForExit();
78     }
79     catch (Exception e)
80     {
81         // If a process is forcefully killed in the middle of operation, it might throw an error
82         ActiveProcess.Dispose();
83         ActiveProcess = null;
84     }
85
86     timer.Stop();
87     lastRunTime = timer.ElapsedMilliseconds;
88
89     Kill();
90
91     return output;
92 });
93 }
94
95 public static void Kill()
96 {
97     if (Running)
98     {
99         if (!ActiveProcess.HasExited)
100             ActiveProcess.Kill();
101         ActiveProcess.Dispose();
102         ActiveProcess = null;
103     }
104 }
105 }
106 }
```