Software Engineering Assessment

GitHub Analyser App			
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Version	1.0		
Release Notes	Initial release		
Release Date	3 rd July 2022		
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Contents

Scenario	3
Prerequisites	4
Notes	
Instructions	
App Overview	
Unit Tests	
Improvement Suggestions	10

Scenario

Your line manager proposed the development of a new web page, where team developers can inform their GitHub id (login) and receive advices about how they can improve their own profiles.

Prerequisites		
 Microsoft Visual Studio 		
		4

Notes

For clarification or setup questions, please feel free to contact me. If there are specific shortcomings related to business logic or optimisation, I am willing to discuss and provide an update.

Instructions

- 1. Extract SoftwareEngineeringAssessment folder to C:\
- 2. Run GithubAnalyser.Solution

 $\label{lem:c:softwareEngineeringAssessment} C: \label{lem:softwareEngineeringAssessment} Github Analyseer. Solution. \\ sln$

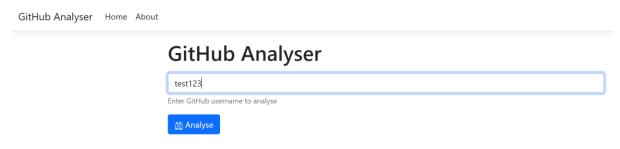
3. Log is available at:

 $\label{lem:continuous} C: \sl of tware Engineering Assessment \s$

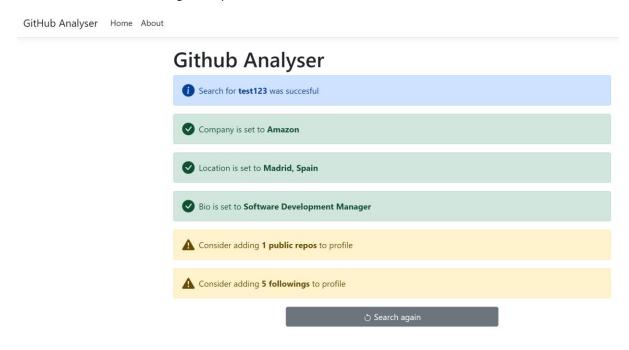
4. Additional inline comments are available throughout GithubAnalyser. Solution

App Overview

Enter GitHub username in input field. Press Analyse:



View result. Press Search again to perform new search:



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Unit Tests

Test Parameter	Expected Result	Actual Result	Remarks
kevincatania14	kevincatania14,null,null,null,0,	kevincatania14,null,null,null,0,	MATCH (PASS)
	0,null	0,null	
asdgasdgasdgadsgadsgad	null,null,null, null, null,	null,null,null, null, null,	MATCH (PASS)
	asdgasdgasdgadsgadsgad	asdgasdgasdgadsgadsgad	

Run GithubAnalyser.UnitTesting

C:\SoftwareEngineeringAssessment\SoftwareEngineeringAssessment\GithubAnalyser.UnitTesting

1. Test method for correct intended input e.g. kevincatania14

```
/// <summary>
                       /// Test method for correct intended input
                       /// </summary
       10
                       [TestMethod]
       11
                       public void TestMethod1()
       12
       13
                            GithubProfileCustomModel expected = new GithubProfileCustomModel()
                                 login = "kevincatania14",
       16
                                togan - well,
company = null,
location = null,
following = "0",
public_repos = "0",
       17
      18
       19
       21
                                 message = null
      22
       23
      24
                            GithubAnalyser.BusinessLogic.GithubAnalyser testMethod = new GithubAnalyser.BusinessLogic.GithubAnalyser();
       26
                            GithubProfileCustomModel actual = testMethod.Analyse("kevincatania14");
                            Assert.AreEqual(actual.login, expected.login);
       27
                            Assert.AreEqual(actual.bio, expected.bio);
      28
                            Assert.AreEqual(actual.company, expected.company);
Assert.AreEqual(actual.location, expected.location);
       29
       30
                            Assert.AreEqual(actual.following, expected.following);
       32
                            Assert.AreEqual(actual.public_repos, expected.public_repos);
                            Assert.AreEqual(actual.message, expected.message);
       33
       340
                                                                                                                                        ▶ Ln: 34 Ch: 10 SPC CF
Test run finished: 2 Tests (2 Passed, 0 Failed, 0 Skipped) run in 856 ms
                                                                                                                                              🛕 0 Warnings 🔞 0 Erro

■ GithubAnalyser.UnitTesting (2)

                                 787 ms

■ GithubAnalyser.UnitTesting (2)

                                                                                                  Source: UnitTest1.cs line 12

■ UnitTest1 (2)

                                 787 ms

    ✓ TestMethod1
    ✓ TestMethod2

                                                                                                 © Duration: 504 ms
                                 283 ms
```

2. Test method for incorrect random input e.g. asdgasdgasdgasdgadsgadsgad:

```
/// <summary>
       37
                       /// Test method for incorrect random input
       38
       39
                       [TestMethod]
                       public void TestMethod2()
       40
       41
       42
                             string randomInput = "asdgasdgasdgasdgadsgadsgad";
       43
                            GithubProfileCustomModel expected = new GithubProfileCustomModel()
       44
       45
       46
                                 login = null,
       47
                                 bio = null,
                                 company = null,
location = null,
following = null,
public_repos = null,
       48
       49
       50
       51
                                 message = randomInput
       53
       54
                            GithubAnalyser.BusinessLogic.GithubAnalyser testMethod = new GithubAnalyser.BusinessLogic.GithubAnalyser();
       55
       56
                            GithubProfileCustomModel actual = testMethod.Analyse(randomInput);
                            Assert.AreEqual(actual.login, expected.login);
       58
                            Assert.AreEqual(actual.bio, expected.bio);
                            Assert.AreEqual(actual.company, expected.company);
Assert.AreEqual(actual.location, expected.location);
Assert.AreEqual(actual.following, expected.following);
       59
       60
       61
                             Assert.AreEqual(actual.public_repos, expected.public_repos);
       62
                             Assert.AreEqual(actual.message, expected.message);
                       }
       640
🛕 0 Warnings 🔞 0 Erro
                             Duration
                                               Error Message
                                 787 ms
787 ms

■ GithubAnalyser.UnitTesting (2)

                                                                                               TestMethod1
 ■  GithubAnalyser.UnitTesting (2)
                                                                                                  Source: UnitTest1.cs line 12
  ■ UnitTest1 (2)
                                 787 ms
    TestMethod1

TestMethod2
                                 504 ms
                                                                                                  (L) Duration: 504 ms
                                 283 ms
```

Improvement Suggestions

- 1. Usage of Angular/React/Vue in place of HTML/CSS/JS/Razor
- 2. Injecting NLog in place of static class
- 3. Usage of AutoMapper in place of Model/ViewModel