

AUTOTEST GUIDE

Test Setup

None.

Test Tools

None... Other than Visual Studio 2019 and either Chrome or Firefox.

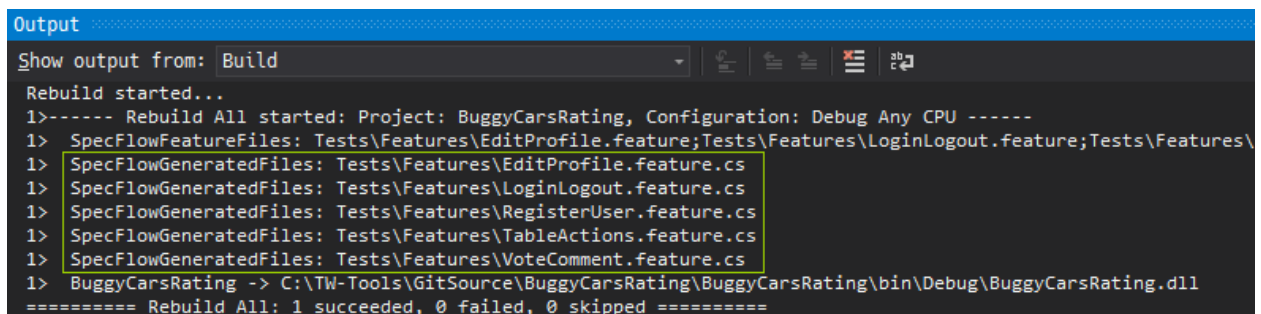
Test Execution

With the BuggyCarsRating solution opened in Visual Studio, open the app.config file via Solution Explorer and set the target browser for the test run. That is controlled by an app settings key named "Browser". It has its value set to "Chrome", but we may use "Firefox" as well to run tests against that browser instead.

It should be okay to change any other settings as well, just mind that those are supposed to be accepted by the test platform in order for the tests to execute as expected. Note also that the tests will add a unique identifier with the length of 33 chars to the "LoginName" setting, and since the maximum length allowed for logins is 50, keep that 17 chars or less in the app.config.

After selecting the target browser, build the solution using the default configuration and platform settings ("Debug" and "Any CPU", that is).

You SHOULD get the SpecFlow code-behind files generated during the build. If all goes well, will see something like that in the build output:



```
Output
Show output from: Build
Rebuild started...
1>----- Rebuild All started: Project: BuggyCarsRating, Configuration: Debug Any CPU -----
1> SpecFlowFeatureFiles: Tests\Features\EditProfile.feature;Tests\Features\LoginLogout.feature;Tests\Features\
1> SpecFlowGeneratedFiles: Tests\Features\EditProfile.feature.cs
1> SpecFlowGeneratedFiles: Tests\Features\LoginLogout.feature.cs
1> SpecFlowGeneratedFiles: Tests\Features\RegisterUser.feature.cs
1> SpecFlowGeneratedFiles: Tests\Features\TableActions.feature.cs
1> SpecFlowGeneratedFiles: Tests\Features\VoteComment.feature.cs
1> BuggyCarsRating -> C:\TW-Tools\GitSource\BuggyCarsRating\BuggyCarsRating\bin\Debug\BuggyCarsRating.dll
===== Rebuild All: 1 succeeded, 0 failed, 0 skipped =====
```

That is known to be flawed though, and without those files, the tests will not appear in the Test Explorer. If they don't get generated, just restart Visual Studio and try again. If that is still no good, close VS search for "specflow" in your temp directory, erase any files that show up, and start VS again.

Following a successful build, use Visual Studio's Test Explorer to run the tests. Individual tests or their respective containers can be run in any order, as they are independent from one another.

Test Results

Some tests are expected to fail, all the failures described below address valid issues with the test website, so having these tests to fail means they are performed as intended.

AlertInvalidInput_Age

The error message displayed when whitespaces or special characters is entered in the Profile page's Age field says "Get a candy ;)", but the test expects it to say "Age is not valid", thus it fails.

LoginLogoutFromPage_Overall

The overall rating page has the logout functionality broken, so when this test tries to log the user out from that page, it times out expecting the login button to appear, thus it fails.

AlertRequiredInput_LastName

The error message displayed when the Last Name field is left blank in the Register page says "First Name is required", but the test expects it to say "Last Name is required", thus it fails.

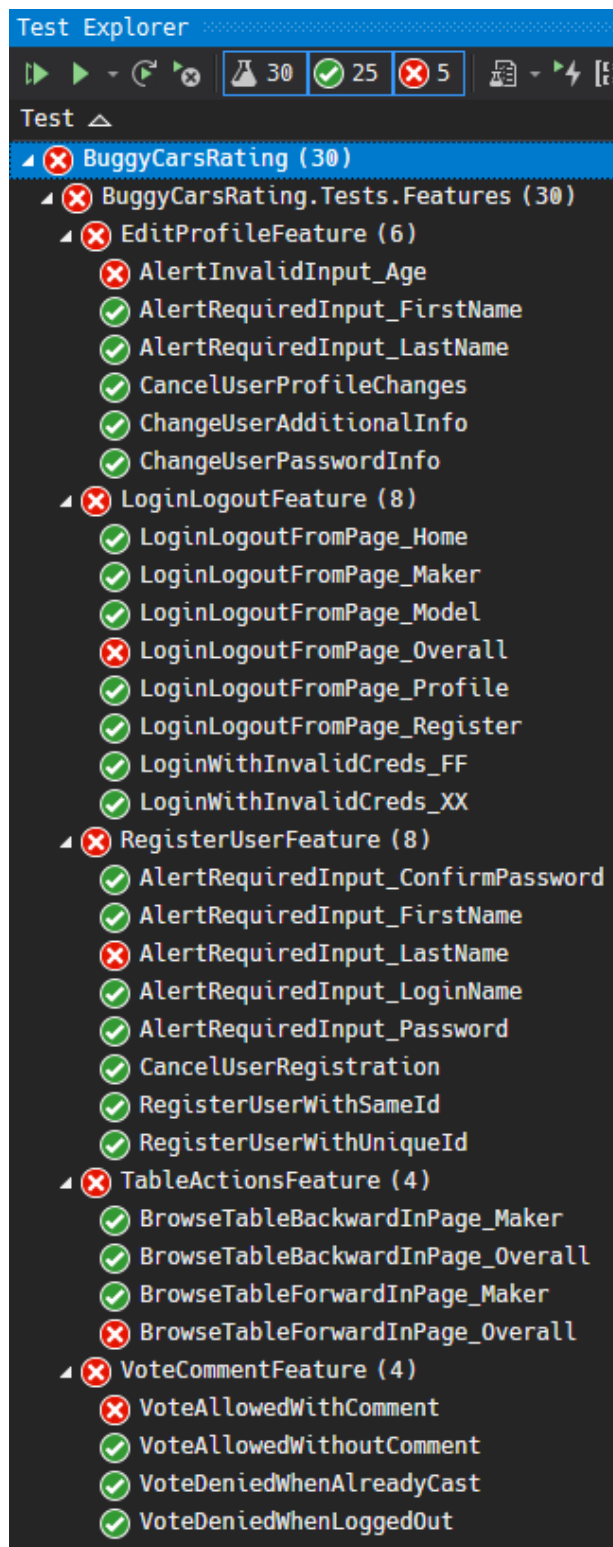
BrowseTableForwardInPage_Overall

When this test navigates to the overall rating page set the model table to page 3, then clicks the next button, it expects page 4 to be displayed, but due to a bug page 31 is displayed instead, thus it fails.

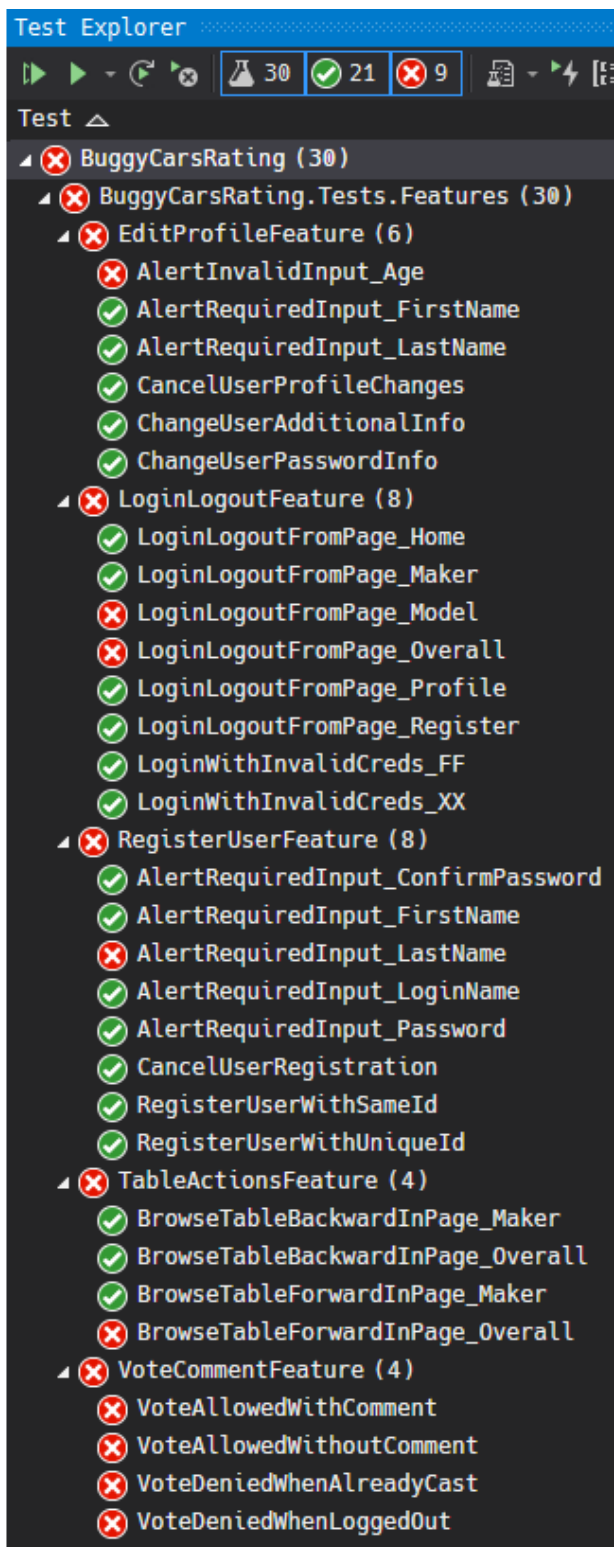
VoteAllowedWithComment

After posting a comment, this test checks that the comment date/time, author, and contents are as expected. However, due to a bug author names are not displayed for certain models, thus it fails.

The tests mentioned above are the only expected fails when running them on Google Chrome. If any other failures occur, then the test is probably not as stable as I would like it to be.



Expected Test Results in Chrome



Expected Test Results in Firefox

Furthermore, other tests are expected to fail when running on Mozilla Firefox. That's due to a major bug that prevents any model pages from loading in that browser. That affects all the tests below, that try to perform operations on those pages but timeout, thus failing accordingly.

LoginLogoutFromPage_Model
VoteAllowedWithoutComment
VoteDeniedwhenAlreadyCast
VoteDeniedWhenLoggedOut

Test Report

A detailed test report is generated for each test run. It can be found under the "ExtentReport" folder that is within the provided solution's root directory. It consists of 3 HTML files, but just open the one named "dashboard.html" and browse the other report pages from there (they can be accessed via the top-left corner menu). Please do check at least the Dashboard and Tests pages out! Here's a preview:

The screenshot displays a test report interface with several components and annotations:

- Table Actions:** Located at the top left, with a red arrow pointing to it.
- Feature Filter:** A red arrow labeled "feature" points to a filter bar containing three items: "5/13/2021 7:50:03 PM", "5/13/2021 7:50:18 PM", and "0h:0m:14s+853ms".
- Test Scenarios:** A list of test scenarios is shown, each with a status icon (green checkmark for success, red X for failure):
 - ✓ Browse Table Backward In Page - Maker
 - ✓ Browse Table Backward In Page - Overall
 - ✓ Browse Table Forward In Page - Maker
 - ✗ Browse Table Forward In Page - OverallRed arrows labeled "scenarios" point to the first three items.
- Test Steps:** The failed scenario "Browse Table Forward In Page - Overall" is expanded, showing a list of steps:
 - ✓ Given the "Overall" page is displayed
 - ✓ When the mid-page number "(round down)" is entered
 - ✓ Then the expected page is displayed
 - ✓ When the "next" page button is clicked
 - ✗ Then the current page number "increases" by oneRed arrows labeled "steps" point to the first three steps.
- Stack Trace:** Below the failed step, a stack trace is visible, with a red arrow labeled "stack trace" pointing to it.
- Exception:** The stack trace concludes with the message: "Assert.AreEqual failed. Expected:<4>. Actual:<31>. The expected list page is not displayed: 4". A red arrow labeled "exception" points to this message.
- Screenshot of Failure:** A small thumbnail image labeled "base64-img" is shown at the bottom left, with a red arrow labeled "screenshot of failure" pointing to it.