

Testing a software using Test Tables

This tutorial will show you how to effectively test software you created in visual studio. We have created many different programs in visual studio but there comes a time when it's required of us to test the software itself. This document is for the beginner learners.

Test No	Test Method	Expected Result	Actual Result	Comment

This is the sample table we will use for testing the application.

Test no will contain the number of that test for example 1, 2, 3 etc

Test method is how we are going to test this application. For example run it in visual studio, click on a button, enter a number, enter text etc.

Expected result is what we believe the outcome of that test would be.

Actual result is what happened when we tested it.

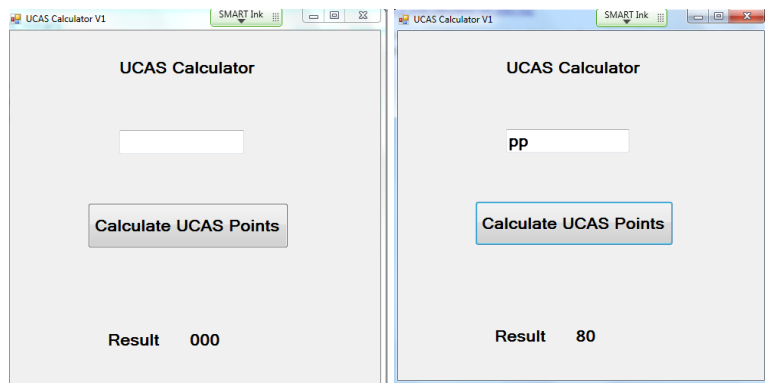
Comment section is for us to leave a comment on that particular text.

We will be including screen shots for our test but instead of putting them into this table we will put it outside the table and number it with the Test No.

We will be testing the UCAS calculator application for this tutorial. You can find it on MOOICT website -

<http://www.mooict.com/c-tutorial-create-a-ucas-calculator-for-btec-v1/>

This is a simple application where the user can input the pass, merit or distinction they achieved or going to achieve in their course and find out how much UCAS points are they worth.



Very simple application for this purpose.

The main entries for this application is **pp** (double pass), **mp** (merit and pass), **mm** (double merit), **dm**(distinction and merit) and **dd** (double distinction).

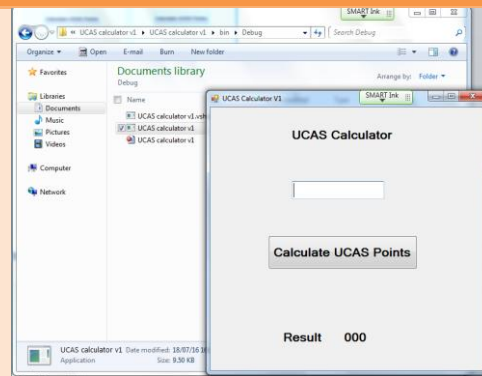
Let's get started on the testing.

Test No	Test Method	Expected Result	Actual Result	Comment
1	Open the application from the project folder bin/debug and double click on the executable file	Application runs successfully	Application runs successfully	By double clicking on the project executable file, the application successfully opened in windows 7.
2	While the text box is empty click on the calculate UCAS points button	Shows message to enter valid grades in the text box	Shows message to enter valid grades in the text box	Enter a Valid Grade message box shows when clicked on the button while the grades text box was empty. The program did not crash.
3	Enter "p" in the text box and click on Calculate UCAS Points	Shows message to enter valid grades in the text box	Shows message to enter valid grades in the text box	Since P is not a valid final grade, the application is showing enter valid grades message box.
4	Enter number 90 in the text box and click on Calculate UCAS points	Shows message to enter valid grades in the text box	Shows message to enter valid grades in the text box	Since 90 is not a valid grade the application shown enter valid grades message box. The program did not crash although its only supposed to accept letters not numbers
5	Enter the mm lower case in the text box	Result label shows 160 on the screen	Result label shows 160 on the screen	Double merit grades are equivalent of 160 UCAS points and it shows on the results label.
6	Enter MM capital letters in the text box	Result label shows 160 on the screen	Result label shows 160 on the screen	We are using TO LOWER function in the code to change all letters in the text box to lower caps when the button in pressed. Capital letters and lower case letters get the same results.
7	Enter MP capital letters in the text box and click calculate.	Result label shows 120 on the screen	Result label shows 120 on the screen	The result shows 120 UCAS points in the results label.
8	Enter "dm" lower case letters in the text box and click calculate	Result label shows 200 on the screen	Result label shows 200 on the screen	The results label shows 200 UCAS points for the grade DM (distinction and merit)
9	Enter the grade DD capital letters in the text and click calculate	Result label shows 240 on the screen	Result label shows 240 on the screen	The results label shows 200 UCAS points for the grade DD (Double Distinction)
10	Enter the grade "DDD" in the text box and click calculate	Shows message to enter valid grades in the text box	Shows message to enter valid grades in the text box	When the button is clicked the program is looking for predefined grades such as pp, mp, dd etc. If there is a string which doesn't match the predefined rules then it will show this message box. In this case there no grades matching the DDD and it will show enter a valid grades message box when clicked on calculate.

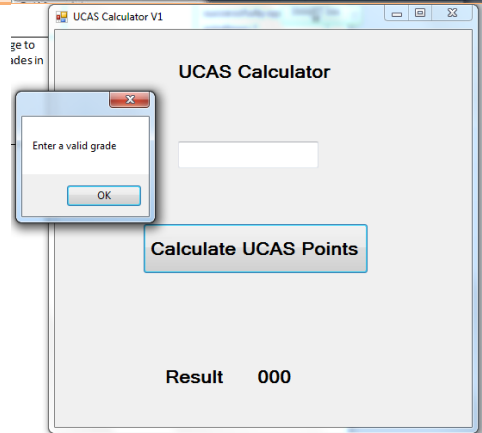
Test No

Screen Shots

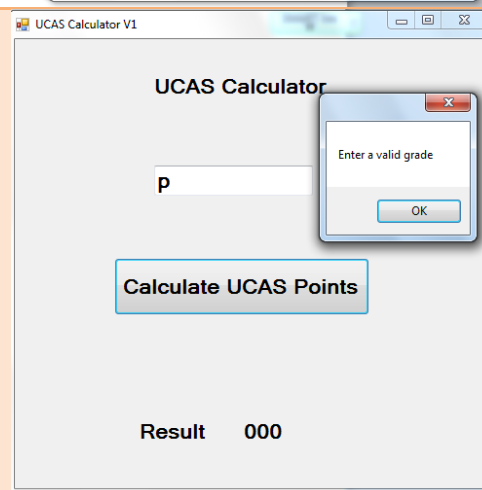
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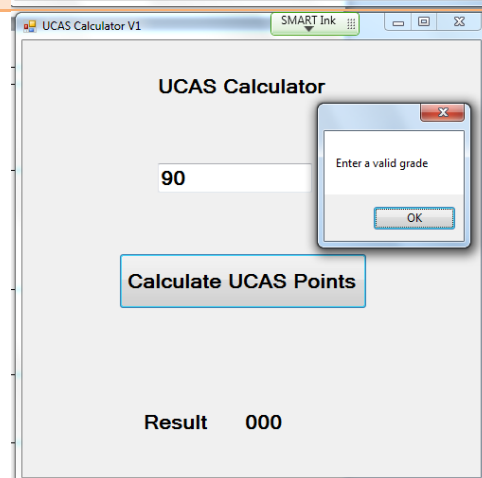
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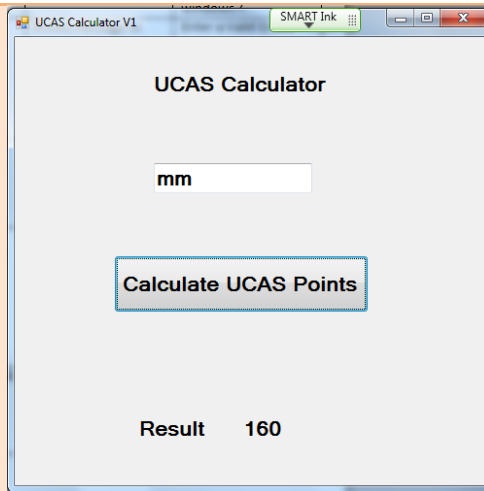
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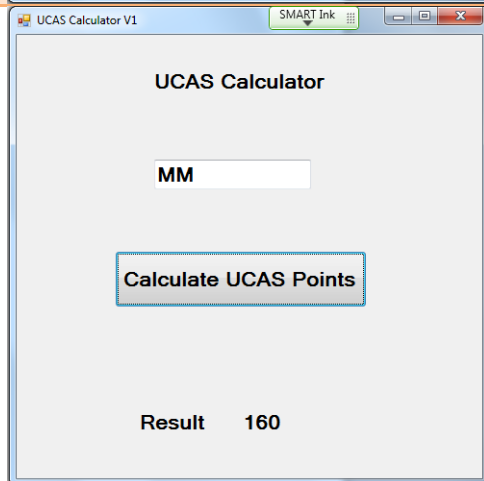
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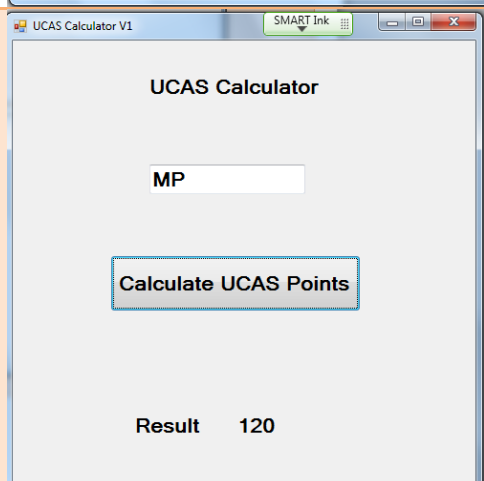
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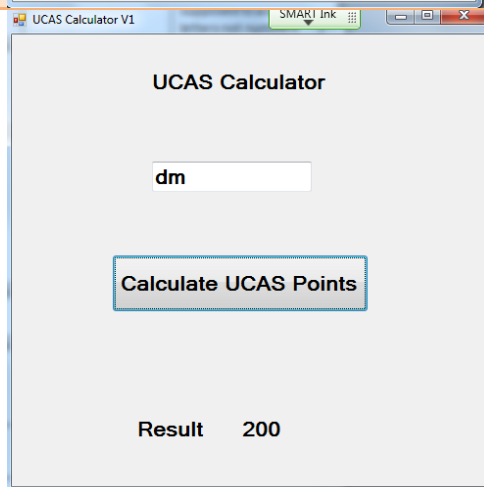
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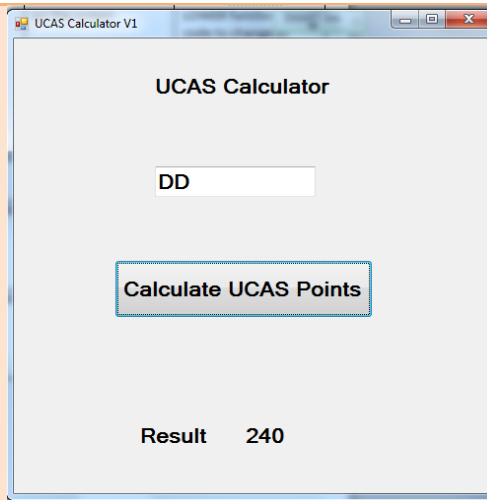
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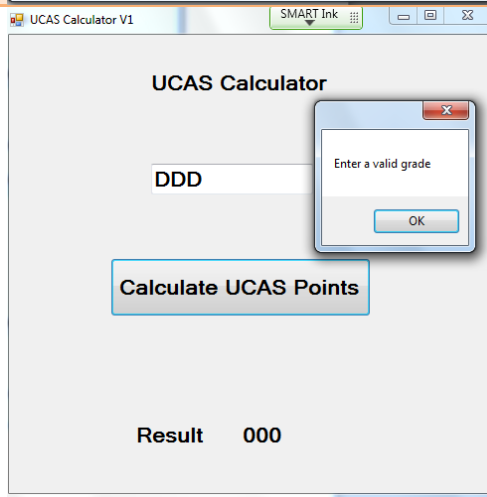
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Final Thoughts –

Above is an example of basic testing computer software which you created. We followed the recommended styles of basic testing using a test table. Make sure your test tables are done in detail and always link the test and the screen shots separately.

Even though this application is small we tested what it can and cannot do. Don't just test what the software does all the time because then we often miss the bugs. For example if we didn't put in a safety measure in the code for the application above when the user puts in MMM for the grades the program would crash instead of giving the message. By showing the message we are reducing the error in our program and giving a more streamlined experience for the user. They can see the error message and correct their mistakes in using this application.

Now go and test your own program. Remember its ALWAYS quality over quantity.