

Systems Development: Testing Software

(H181 34)

Outcome 3

”Produce a test plan and test a small application”

An open book assessment

Scenario

Over the last five years a number of HND programmes throughout Scotland’s colleges have experienced a decline in achievement together with a significant number of students failing to complete their studies

In response to this unfortunate trend, the Support Centre at Contoso College decided it was necessary to proactively monitor achievement and to streamline their services accordingly by recording the number of HND student referrals over the entire academic year

To best ensure this they employed the services of the software bureau you work for to develop a bespoke “Support Statistics” application for them

A solution for Contoso College has been developed in Visual C# using Microsoft’s Visual Studio .NET environment

You will be provided with this ‘raw’ solution (copy the SupportStatistics(NotTested) solution folder into your own area)

The ‘raw’ simple, single form solution provided is not internally documented and contains functional (semantic) flaws that will require structural modifications

There are no syntax or run time errors

You are required to assume the role of an OOP Solutions Ltd. software tester, however you will also need to correct / modify code and re-test until a fully working application is provided

i.e. ensure it is fit for purpose before deployment

(this can allow for usability and acceptance testing techniques to be employed …)

You must document in detail your test activities

Note that the use of Visual Studio’s debugging tool is recommended

(continued overleaf)

You are required to submit (preferably in electronic format) a formal report consisting of the following:

* **A detailed Test Plan**, reflecting the limited scope of the solution provided, outlining and justifying the strategies and approaches (a minimum of three) to be employed, timescales and proposed resources

(refer to the sample Test Plan proforma provided on the Moodle resource)

* **Detailed Test Log documentation**
* The Test logs produced as a result of your testing the simple, single form application provided in accordance with your test plan

Make sure you employ an appropriate range of test cases and rigorous test items

(refer to DataValidationTestLog.docx and EventValidationTestLog.docx provided)

* A list of fully documented code additions and modifications

i.e. having logged the functional errors encountered, document in detail the code changes required to resolve these errors before testing again

(refer to CodeRectifications.docx provided)

In addition to the report, ensure you provide the lecturer with your fully working solution