

Assignment front sheet

Qualification		Unit number and title	
Pearson BTEC Higher Nationals in Computing and Systems Development		Unit 42: Programming in .NET	
Student name		Assessor name	
		Dr Derek Peacock	
Date issued	Completion date	Submitted on	
8 th June 2017	22nd June 2017		

Assignment title		Assignment 3: ASP.NET Testing			
LO	Learning outcome	AC	In this assessment, you will have the opportunity to present evidence that shows you are	Task no	Evidence
U42 LO 4	Be able to implement .NET solutions	4.1	critically review and test a .NET programming solution	1	
		4.2	analyse actual test results against expected results to identify discrepancies	1	
		4.3	evaluate independent feedback on a developed .NET program solution and make recommendations for improvements	2	
		4.4	create user documentation for the developed .NET program solution	3	
		4.5	create technical documentation for the support and maintenance of a .NET program solution.	4	
U21 LO 3	Be able to implement test plans	3.1	implement a test plan based on a given testing opportunity	1	
U21 LO 4	Be able to evaluate test plans	4.1	critically review the test outcomes	1	
		4.2	justify the validity of the test and identify any potential issues	5	

Learner declaration

I certify that the work submitted for this assignment is my own and research sources are fully acknowledged.

Student signature:

Date:

In addition to the above PASS criteria, this assignment gives you the opportunity to submit evidence in order to achieve the following MERIT and DISTINCTION grades

Grade Descriptor	Indicative characteristic/s	Contextualisation
M1 Identify and apply strategies to find appropriate solutions	complex problems with more than one variable have been explored	<i>NOT AVAILABLE</i>
M2 Select/design and apply appropriate methods/techniques	a range of methods and techniques have been applied	<i>NOT AVAILABLE</i>
M3 Present and communicate appropriate findings	the appropriate structure and approach has been used	<i>NOT AVAILABLE</i>
D1 Use critical reflection to evaluate own work and justify valid conclusions	Self-criticism of approach has taken place	<i>NOT AVAILABLE</i>
D2 Take responsibility for managing and organising activities	autonomy/independence has been demonstrated	<i>NOT AVAILABLE</i>
D3 Demonstrate convergent/lateral/creative thinking	innovation and creative thought have been applied	<i>NOT AVAILABLE</i>

Assignment brief

Unit number and title	Unit 42: Programming in .NET
Qualification	Pearson BTEC Higher Nationals in Computing and Systems Development
Start date	
Deadline/hand-in	
Assessor	Dr Derek Peacock

Assignment title	Assignment 3: Application Testing
Purpose of this assignment <i>To provide learners with an understanding of the principles of programming using a .NET Framework as an underpinning technological concept in the fields of programming and systems development. This assignment will provide an opportunity to Test an application using the latest version Visual Studio and C#.NET</i>	
Scenario Valerian Software is a small software development firm newly established that is looking to develop novel dynamic interactive websites that make use of modern web development best practices. You have been recently appointed as a trainee web developer and you are required as part of your job to complete an on-going CPD program which will last two years. You have been given the job of Testing dynamic web pages that are part of an e-commerce application.	
Task 1 (U42 LO4.1, U42 LO4.2 U21 LO 3.1, U21 4.1) Each member of the team should create tests for add, edit, delete view and list one entity in the application and tests for any front-end pages. The results of applying those tests should be recorded, and any that fail should be added as issues to be resolved in Bitbucket Each member of the team should critically review the test outcomes and the whole of the implemented application and submit an evaluation of any issues identified.	
Task 2 (U42 LO4.4) Each member of the team should create and add an onscreen help to assist users of their web pages. This page should explain each field and provide assistance for verifying and validating the contents of the field.	

Task 3(U42 LO4.3)

Evaluate the feedback received from an independent tester after completing the web pages that Create, Remove, Update, Display (CRUD) and list the contents of one database entity. Make recommendations as to how these pages could be improved.

Task 4 (U42 LO4.5)

Check that all classes and all properties and methods are fully commented so that suitable API technical documentation could be generated.

Reverse engineer a UML class diagram to summarise and document the current state of the application

Task 5 (U21 LO 4.2)

Justify the validity of the tests that have been completed, their effectiveness, accuracy and suggests improvements to both the tests and the application functionality being tested. Discuss any issues.

Evidence checklist	Summary of evidence required by student	Evidence presented
Task 1	<p>A test plan and test results of black box tests that test the 5 CRUD operations and the validation of every field.</p> <p>A critical review of the solution, the test plan and the test results identifying discrepancies between expected and actual results and any issues identified recorded in the appropriate Bitbucket repository.</p>	
Task 2	<p>Web page(s) containing help for users of the application this can include:-</p> <ul style="list-style-type: none"> • Suitable customised error messages (include screenshot) • Individual tooltips for each field (show the code) • Pop up help • Instructions on how to complete the operation or an FAQ page. 	
Task 3	<p>An evaluation of independent feedback of the web pages with suggested recommended improvements using one of the following methods of obtaining feedback:-</p> <ul style="list-style-type: none"> • Usability Test • Questionnaire or Survey • Interview of a user who is not part of the development team 	
Task 4	<ol style="list-style-type: none"> 1. C# code pages containing sufficient commenting to generate API documentation including controller, model and configuration. 2. A class diagram reverse engineered in Visual Paradigm 	
Task 5	<p>A report of at least 500 words justifying the validity and effectiveness of the tests that have been completed, suggesting improvements to the tests and the application features tested. Identifying any outstanding issues</p>	

Achievement Summary

Qualification	Pearson BTEC Higher Nationals in Computing and Systems Development	Assessor name	Dr Derek Peacock
Unit Number and title	Unit 42: Programming in .NET Unit	Student name	
Criteria Reference	To achieve the criteria the evidence must show that the student is able to:	Achieved ? (tick)	
U42-4.1	critically review and test a .NET programming solution		
U42-4.2	analyse actual test results against expected results to identify discrepancies		
U42-4.3	evaluate independent feedback on a developed .NET program solution and make recommendations for improvements		
U42-4.4	create user documentation for the developed .NET program solution		
U42-4.5	create technical documentation for the support and maintenance of a .NET program solution.		
U21-3.1	implement a test plan based on a given testing opportunity		
U21-3.2	critically review the test outcomes		
U21-3.3	justify the validity of the test and identify any potential issues		
Higher Grade achievements (where applicable)			
Grade descriptor	Achieved? (tick)	Grade descriptor	Achieved? (tick)
M1: Identify and apply strategies to find appropriate solutions		D1: Use critical reflection to evaluate own work and justify valid conclusions	
M2: Select / design and apply appropriate methods / techniques		D2: Take responsibility for managing and organising activities	
M3: Present and communicate appropriate findings		D3: Demonstrate convergent /lateral / creative thinking	

Assignment Feedback

Formative Feedback: Assessor to Student

Action Plan

Summative feedback

Feedback: Student to Assessor

Assessor Signature

Date

Student Signature

Date