Assignment brief and submission document

AQA Level 3 Technical Level IT: Programming
Unit name: Event driven programming

Tutor/assessor name	
Learner name	
Assignment title	**'The writing is on the wall for event driven programming'**

Context of the assignment

Event Driven Programming (EDP) is a distinct and unique approach used to design and build coded solutions to real-world problems. Solutions that are developed using the event driven method differ from traditional algorithm-oriented solutions.

In considering event driven programming it is important to understand:

- The key features of event driven programming and the approach in comparison with other programming paradigms.
- The syntactical features of event driven applications and their correct use in specific contexts.
- How to build custom features and use more advanced features of EDP.

Evidence and/or format of evidence required for this assignment

An introductory 'e-zine' article focusing generally on the programming paradigm, describing key features of EDP, the differences and similarities of the approach of EDP compared with other programming paradigms and applications which lend themselves the best to an event driven approach.

A working, debugged program for a Graphical User Interface, that makes use of a number of different event features.

A developed and improved program for a Graphical User Interface that utilizes a number of custom built and advanced features of event driven programming.

The programming aspects to this assignment could be written in a number of different programming languages that lend themselves to EDP.

Date assignment issued	To be completed by	Actual submission date

Grading criteria

The grade is calculated based on the evidence provided against each of the grading criteria below. Evidence must be provided in the format agreed.

	Pass	Merit	Distinction
Performance outcomes	P1 P2 P3 P4	M1 M2 M3	D1
	Evidence PO1, PO2	**Evidence** PO1, PO2	**Evidence** PO1, PO2

Performance criteria to be evidenced in the tasks provided *(eg Task 1)*	Criteria *(eg P1, M1, D1)*
Task 1	P1, M1, D1
Task 2	P2, P3
Task 3	P4, M2, M3

Learner authentication

I confirm that the work and/or the evidence I have submitted for this assignment is my own. I have referenced any sources in my evidence (such as websites, text books). I understand that if I don't do this, it will be considered as a deliberate deception and action will be taken.

Learner signature   **Date**

Tutor/assessor signature   **Date**

Scenario (all assignments are based on real-work practice in a related job role):

Microsoft® regularly publishes a range of monthly online 'e-zines' (web-based magazines) that specialize in software development. Their publications tend to be read by both amateur coders and professional programmers alike. Microsoft's publications are available through subscription-based services and therefore the content needs to reflect a certain quality, professionalism and expertise that sets the e-zines apart from material that is freely available on the web.

You are a freelance writer and Microsoft have commissioned you to write a number of in-depth articles focusing on Event-Driven Programming targeted at both people new to EDP and those wishing to develop their knowledge and skills of the programming paradigm. Some suggestions have been made on what the pieces should contain:

- The differences and similarities of the approach of EDP compared with other programming paradigms,
- descriptions of a range of different syntax features of EDP languages,
- additional accompanying 'how-to' pieces describing how to develop certain aspects of an event driven application.

The editor has iterated that he wants the articles to contain clear, concise, 'plain English' language with a limited, sensible use of technical jargon (with maybe a small accompanying glossary of technical terms). He would like to see explanations further illustrated with example snippets of code with possibly relevant informative annotations.

Microsoft have provided the following URLs for you to use to give you some ideas on how you could approach the project:

microsoft.com/en-gb/developers/

microsoft.com/en-gb/developers/articles/week04apr15/a-speech-library-helper-for-cortana/

Tasks

1   As the focus of this month's 'e-zine' is event driven programming, the editor at Microsoft would like you to write an opening article introducing event driven programming to the reader in which the piece talks generally about the programming paradigm, describing aspects such as the key features of EDP, then moving onto focusing on the differences and similarities of the approach of EDP compared with other programming paradigms and finishing with an analysis of which applications lend themselves the best to an event driven approach.

2   Following on from the introductory article, your editor is enthusiastic for you to develop the readers' knowledge and skills of the syntax of event driven programming. He has decided that readers of the e-zine would enjoy learning about how to use EDP to construct simple GUI's. So he has asked you to write a working program for a GUI that they can use in an instructional article. The criteria for the code is:

a   It should use at least four different types of event handler.
b   It should utilize at least four different event listeners.
c   It should utilize at least four different event controllers.
d   The code should demonstrate good use of identifiers, constructs and functions.

   The editor is also looking for clear and helpful comments within the code that documents what is happening at any point within the program.

3   Finally, to finish the month's focus on event driven programming, your editor has said he would like to accommodate the more expert readers of the e-zine and therefore would like to see a follow-on instructional article, which utilizes more advanced EDP features and so he has asked you to develop the GUI program you wrote in task 2, to include the following:

a   A custom event handler to meet a particular need.
b   A custom function in order to meet a specific need .
c   A simple data structure in order to meet a specific need.

Please note that the defined need can be self-selected by the learner.

Don't forget when you're writing this to include a description of the approach to the development, any specific considerations that the development demands and if possible a step-by-step guide to the development/implementation. **Readers always feedback that they like this type of attention to detail.**

Submission checklist (please insert the items the learner should hand in)	Confirm submission
e-Zine article	
A program for creating a GUI that includes various syntax of event driven programming which is coded to professional standards	
A further development of the GUI program that includes more advanced EDP features.	
Learner - please confirm that you have proofread your submission	