

Template for CBQ units

Unit	Software Design Fundamentals	
SSC Code	SDF	
SQA Code	H3BM 04	
SCQF Level	7	
SCQF Credit Value	8	
Guided Learning Hours		
Unit summary		
Learning Outcomes The learner will:	Assessment Criteria	
1. Understand the principles of software design	<p>1.1 Describe the role of software design and computer programming in the IT Systems Development Life Cycle (SDLC)</p> <p>1.2 Describe the application and limits of the procedural, object oriented and event driven programming paradigms and the available supporting tools and environments</p> <p>1.3 Explain sequence, selection and iteration as used in computer programming</p> <p>1.4 Explain abstraction of data and code in computer programming</p> <p>1.5 Explain the use of predefined data and code in computer programming</p> <p>1.6 Explain the importance of the understandability of code and how this can be improved by naming, comments and layout.</p> <p>1.7 Describe how</p> <ul style="list-style-type: none"> • efficiency • reliability, • robustness, • usability, • portability • maintainability <p>contribute to the quality of code.</p>	

2.Be able to apply the principles of software design	<p>2.1 Develop algorithms to represent problems</p> <p>2.2 Define data and file storage requirements including predefined data items</p> <p>2.3 Define program structures including predefined code items</p> <p>2.4 Describe required inputs and outputs.</p> <p>2.4 Use tools to express software designs</p>
Additional information about the unit	
Guidance on approaches to assessment	Further guidance is set out in the CBQ Assessment principles developed by e-skills UK and agreed by the Joint Awarding Body Forum.
Details of the relationship between the unit and relevant National Occupational Standards or other professional standards	This unit is based on the e-skills UK NOS for IT professionals (PROCOM) available from www.e-skills.com/nos
Location of the unit within the subject/sector classification system	IT Professional
Name of the organisation submitting the unit	e-skills UK