

Cambridge TECHNICALS LEVEL 3

IT

Cambridge
TECHNICALS
2016

MAPPING GUIDE

Unit 11 Systems Analysis and Design

Version 1

INTRODUCTION

Prodigy are delighted to work with OCR, a progressive Awarding Organisation, who share the ambition of providing high-quality qualifications, learning solutions that are industry-led and reliable and valid assessment. The Cambridge Technicals in IT qualifications provide 'future-ready' skills for a learner to further their ambitions, whether that is in terms of further academic study, enter an apprenticeship or as a springboard to gaining employment.

Prodigy Learning (Prodigy) is an award-winning EdTech business providing digital skills certifications and learning solutions for a range of technologies including Adobe, Autodesk and Microsoft. Established in 2000, Prodigy now have offices in Dublin, London and Sydney. Having worked closely with Microsoft since 2000, Prodigy is a Microsoft Authorised Education Gold Partner and a MS Global Training Partner supporting academic institutions utilise Microsoft Imagine Academy, Microsoft certifications and other Microsoft Education solutions.

Historically, the UK has thrived on a rich research and technology base and has been at the forefront of global technology innovation. Enthusing young learners about following exciting careers in science, technology, engineering and mathematics (STEM) subjects is fundamental to maintaining this success. However, currently the UK has a widely acknowledged skills gap in the pipeline of talent studying computing-related disciplines. Therefore, providing high quality, engaging and relevant qualifications that equip learners with current technical knowledge and skills is essential to encourage more young people into the computing discipline, and moreover to ensure they progress to jobs in the sector.

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1. Apply Strategies to Solve Computational Problems

	1. Apply Strategies to Solve Computational Problems	1.1.1 Decompose simple problems into steps;	1.2.1 Describe computer programs that use logical subdivisions;	1.2.2 describe solutions that use programmable strategies such as objects, functions, and parameters in the pseudo code provided;
3.1.1 The three view approach - functionality: data flow diagram (DFD's)	X	X	X	X
3.1.2 The three view approach - functionality: flow charts	X	X	X	X
3.1.3 The three view approach - functionality: Jackson structure chart	X	X	X	X
3.2.1 Unified Modelling Language (UML) - use case diagram	X	X	X	X
3.2.2 Unified Modelling Language (UML) - activity diagram	X	X	X	X

7. Examine the Software Development Process

	7.1.1 Analyse problems in relation to your audience and identify which apps or games can be part of the solution and how they can be used;	7.2.2 describe a cycle of create, evaluate and revise	7.3.2 give and receive feedback	7.3.3 evaluate feedback and revise the program accordingly
1.1.5 The components of the systems development lifecycle - requirements engineering (e.g. business and user): requirements gathering (e.g. ideas, concerns)	X			
1.1.6 The components of the systems development lifecycle - requirements engineering (i.e. business and user): requirements analysis (i.e. sensible, achievable, affordable)	X			

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	7.1.1 Analyse problems in relation to your audience and identify which apps or games can be part of the solution and how they can be used;	7.2.2 describe a cycle of create, evaluate and revise	7.3.2 give and receive feedback	7.3.3 evaluate feedback and revise the program accordingly
1.1.7 The components of the systems development lifecycle - requirements engineering (i.e. business and user): requirements sign off	X			
1.1.8 The components of the systems development lifecycle - requirements engineering (i.e. business and user): requirements monitoring (i.e. avoiding mission creep)	X			
1.2.2 Life cycles - evolutionary (e.g. iterative, spiral)		X		
4.3.1 Refining designs based on stakeholder feedback - analyse the feedback: identify types of problems			X	X
4.3.2 Refining designs based on stakeholder feedback - analyse the feedback: determine consistency of comments			X	X
4.3.3 Refining designs based on stakeholder feedback - decision on whether the refinements are viable			X	X
4.3.4 Refining designs based on stakeholder feedback - make changes to design in line with feedback and viability considerations			X	X



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