

Unit 2 Applied Computing – 2024
Outcome 1 Innovative solutions – Template for developing an assessment task – Blank

Outcome 1		Assessment task development
<p>On completion of this unit the student should be able to, in collaboration with other students, analyse, design, develop and evaluate an innovative solution to an identified need or opportunity involving a digital system.</p>		
Key knowledge	Key skills	
<ul style="list-style-type: none"> components of digital systems types of digital devices used for a range of current and emerging applications such as smart phones, smart refrigerators and virtual assistants emerging trends in digital systems and the importance of innovation to organisations, such as improving efficiency and effectiveness of customer service and maintaining competitiveness functions and capabilities of digital systems used by individuals and organisations, such as assistive technologies, financial services, global positioning system (GPS) devices, robotics and traffic management goals and objectives of digital systems economic issues involving emerging technologies, such as access, deskilling, job loss, misuse and sustainability the impact of current and emerging technologies, such as automation, cyberbullying and the decline of physical human interactions and interpersonal skills 	<ul style="list-style-type: none"> investigate a problem, need or opportunity and identify potential users and purpose 	
<ul style="list-style-type: none"> techniques for collecting data to determine user needs and requirements, such as interviews and surveys 	<ul style="list-style-type: none"> propose a range of methods to collect data for analysis 	
<ul style="list-style-type: none"> solution specifications such as functional and non-functional requirements, constraints and scope 	<ul style="list-style-type: none"> analyse and document solution requirements to develop an innovative solution 	
<ul style="list-style-type: none"> design tools and techniques for representing solution designs, such as mock-ups, pseudocode, sitemaps and storyboards 	<ul style="list-style-type: none"> select and use appropriate design tools for generating solution designs 	
<ul style="list-style-type: none"> characteristics of creative and innovative solutions functions and techniques for developing innovative solutions 	<ul style="list-style-type: none"> develop an innovative solution using appropriate digital systems 	
<ul style="list-style-type: none"> techniques for documenting the development of solutions 	<ul style="list-style-type: none"> document the development of the innovative solution 	
<ul style="list-style-type: none"> techniques for validating and testing solutions 	<ul style="list-style-type: none"> design and apply suitable validation and testing techniques 	
<ul style="list-style-type: none"> key legislation and how emerging technologies are affected by: the Copyright Act 1968, the Health Records Act 2001, the Privacy Act 1988 and the Privacy and Protection Act 2014 ethical issues arising from the development of emerging technologies 	<ul style="list-style-type: none"> identify and discuss potential legal and ethical issues affecting the development of an innovative solution 	
<ul style="list-style-type: none"> evaluation criteria and techniques for evaluating the efficiency and effectiveness of innovative solutions 	<ul style="list-style-type: none"> apply evaluation criteria and evaluate the efficiency and effectiveness of an innovative solution to meet a need or opportunity 	
<ul style="list-style-type: none"> tools and techniques for coordinating and monitoring projects, such as Gantt charts 	<ul style="list-style-type: none"> document, monitor and modify project plans using a Gantt chart 	