

**Specification of Competency Standards**  
**for the Information & Communications Technology Industry**  
**Unit of Competency**

Functional Area - Operations Management

Title	Perform game prototyping
Code	107924L4
Description	This unit of competency applies to all Digital Media Technology (DMT) practitioners who are involved in game applications development. The main objective of game prototyping is to create a demo for proof of concept before actual production and almost all games development adopt this approach. This UoC is concerned with the considerations and activities in creating game prototypes.
Level	4
Credit	3
Competency	<p>Performance Requirements</p> <p>1. Knowledge for game prototyping</p> <ul style="list-style-type: none"> <li>• Understand details of the game engines adopted by the organisation</li> <li>• Understand game animation and related techniques</li> <li>• Understand related concept and techniques, such as rapid game prototyping</li> <li>• Get hold of the organisation's resources and support for game prototyping</li> <li>• Master popular script languages for game application development</li> <li>• Possess proficient knowledge in basic physics as applied to games development</li> </ul> <p>2. Perform game prototyping</p> <ul style="list-style-type: none"> <li>• Gather relevant information and requirements about the game application to be developed from various sources, such as: <ul style="list-style-type: none"> <li>○ The game development team</li> <li>○ The current industry trend</li> <li>○ Suggestions and preferences of the players, etc.</li> </ul> </li> <li>• Prepare for creation of the game prototype with the following aims and considerations: <ul style="list-style-type: none"> <li>○ Ensure the game concept is fun enough before its actual implementation</li> <li>○ Test the game mechanics and gameplay</li> <li>○ Create a playable portable demo for consideration by management</li> <li>○ Select the best idea from a set of alternatives</li> <li>○ Test the technical feasibility of ideas</li> <li>○ Make available a design and development sandbox before a full development team has been staffed, etc.</li> </ul> </li> <li>• Carry out the game prototyping tasks according to prescribed guidelines or procedures if applicable, and which may include: <ul style="list-style-type: none"> <li>○ Pick and use the designated tools such as game maker, game-editor, Unity, construct etc.</li> <li>○ Develop the prototype and play around with it, such as simulate tilting and other features by using the keyboard</li> <li>○ Create some artwork and evaluate if there is too much or insufficient details on it</li> <li>○ Import art into the prototype and make sure all appear as desired</li> <li>○ Capture video footage from the game in the desired resolution, etc.</li> </ul> </li> <li>• Avoid prolonged development time for the game prototype and prepare for the possibility of failures</li> <li>• Get feedback towards the game prototype from the correct and objective advisors other than developers</li> <li>• Present the completed game prototype to the game development team for comment and references</li> </ul>

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	<p>3. Exhibit professionalism</p> <ul style="list-style-type: none"><li>• Always perform game prototyping with the idea of producing a reliable proof of concept in the shortest time frame and using minimum resources</li><li>• Always carry out the game prototyping activities in an objective and non-biased manner in order to solicit accurate outcomes</li></ul>
Assessment Criteria	<p>The integrated outcome requirements of this UoC are the abilities to:</p> <ul style="list-style-type: none"><li>• Complete the game prototype on time and within budget constraints; and</li><li>• Deploy fully designated resources and support to carry out the game prototyping tasks</li></ul>
Remark	