

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

Functional Area - Operations Management

Title	Develop game monitoring system
Code	107939L4
Description	This unit of competency applies to all Digital Media Technology (DMT) practitioners who are involved in game development. Game companies and game infrastructure providers must properly monitor and manage game workloads and contents so that they can maximize player satisfaction while minimizing their own costs. This UoC is concerned with the knowledge and activities for development personnel to work out a scheme for game monitoring.
Level	4
Credit	3
Competency	<p>Performance Requirements</p> <p>1. Knowledge for game monitoring system</p> <ul style="list-style-type: none"> • Fully comprehend the contents and details of the game application in concern • Understand related budget and resources allocation • Understand the technical requirements for accommodating and operating the game application • Understand the market requirements for game products and player behaviour • Understand event driven front end development • Possess proficient knowledge in popular programming languages for games • Possess proficient knowledge in common computer resources measurement, such as: <ul style="list-style-type: none"> ○ Virtual memory ○ Central Processing Unit (CPU) idle time measurement ○ Network bandwidth ○ Database and storage capacity <p>2. Develop game monitoring system</p> <ul style="list-style-type: none"> • Conduct a comprehensive and long term analysis of the game product in concern and its players, with special focus for the followings: <ul style="list-style-type: none"> ○ Internet capacity ○ Popularity of the particular game product ○ Network traffic performance ○ Behaviour and preferences of the players, etc. • Determine appropriate means and methods to conduct the followings based on analysis results: <ul style="list-style-type: none"> ○ Track user statistics including returning or new users ○ Record operational performance of unique game machines ○ Track players who are having difficulties, etc. • Design the monitoring procedures such as the followings: <ul style="list-style-type: none"> ○ Create Graphical User Interface (GUI) front end for monitoring ○ Create server module to communicate with front end ○ Send alert when there is any issue regarding machines, game sessions and game events, etc. ○ Log statistics for server performance and resources usage • Ensure compatibility with and integration of the monitoring software (if adopted) into the existing game engine • Consolidate the above measures and activities as a scheme or system for game monitoring with proper documentation • Test running and refining the game monitoring system until its satisfactory operation

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	<ul style="list-style-type: none">• Formally implement the prescribed game monitoring system after seeking approval from management or the game development team <p>3. Exhibit professionalism</p> <ul style="list-style-type: none">• Always develop the game monitoring system with full dedication and effort, and in an efficient and effective manner• Always maintain a proper balance between game monitoring performance and related resources consumption
Assessment Criteria	<p>The integrated outcome requirements of this UoC are the abilities to:</p> <ul style="list-style-type: none">• Able to work out a cost-effective game monitoring system; and• Able to develop a game monitoring system that can provide useful and relevant information to the game development team
Remark	