



Australian Government

Assessment Requirements for ICTGAM527 Integrate database with online game

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- determine and install application programming interfaces (API) for games development
- define and add database functionality to an online game
- integrate, test and modify the database data provided by game-play input and document all errors and solutions.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- provide a detailed explanation of relational database theory, including how:
 - to create and test stored procedures
 - to create 'embedded' structured query language (SQL) and to assign parameters in the code for filtering
 - tables are related, and how relationships between tables are implemented
 - SQL is used to retrieve data from multiple tables
 - inserts to tables in parent/child relationships can be implemented using artificial (auto-generated) primary key values
 - to implement cascading updates and deletes
- summarise the principles of game development
- explain the principles of integrated development environments, including:
 - data access APIs and associated classes, required for the integration of a database with an online game
 - online help and documentation required for research and debugging code
 - user authentication and authorisation management

- outline the methodologies and techniques required for effective and well-factored object-oriented program (OOP) code, including:
 - class implementation
 - control of logic flow
 - use of collections and lists
 - use of OOP concepts, such as inheritance, encapsulation and overloading
- describe the implications of web development on games integration.

Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Noise levels, production flow, interruptions and time variances must be typical of those experienced in the game development field of work, and include access to:

- the game design specification and requirements documentation
- a game server
- a database server
- integrated development environment software and hardware
- browsers for browser-based games or game consoles for console-based games.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>