Critique

Knowledge 1. Critical appreciation of current and new data models and database systems

Currently there are a lot of data models and database systems out there and there are new ones emerging all the time, this learning outcome is to show that I have a critical appreciation of both current and new data models.

The portfolio elements I believe are relevant to this learning outcome are Exercise 2 (Portfolio Exercise 4 Data Warehousing and using Oracle and MongoDB), Extended Research Abstract (Database technologies and data models for cloud computing) and the Mini Test Question (Mini Test Question 1). Exercise 2 is relevant as it involved me creating a star schema for a data warehouse which is a new type of data model, as well as looking into NoSQL which is also another new data model. However as Exercise 2 only focuses on new data models and therefore only partially matches the learning outcome. The Extended Research Abstract also only partially matches the learning outcome as the research was looking at both old and new data models and systems however it is a very narrow subsection of databases so it does not full match the learning outcome. The Mini Test Question also only partially matches the learning outcome as it only briefly looks at relational databases which is a current database model as well as briefly going into NoSQL which is a new database model, however since it only goes briefly into them it cannot completely match the learning outcome, however all of them together do completely match the learning outcome as both current and new database models and systems are looked at.

Knowledge 2. Appraisal of current and emerging trends in database and information systems

Current and emerging trends in database and information systems need to be appraised so that the best systems can be found for database projects in the future.

The portfolio elements I believe are relevant to this learning outcome are Exercise 1 (Portfolio Exercise 1 Relational Algebra and SQL), Exercise 2 (Portfolio Exercise 4 Data Warehousing and using Oracle and MongoDB), Extended Research Abstract (Database technologies and data models for cloud computing) and the Mini Test Question (Mini Test Question 1). Exercise 1 is relevant as it was using SQL to create and query a relational database at varying levels of complexity and as such allowed me to look at the current SQL and relational database trends so it only partially matches the learning outcome. Exercise 2 is relevant as it was looking at emerging databases and information systems, which in this case was data warehousing, as a result this partially matches the learning outcome. The extended research abstract allowed me to again look at emerging database and information systems as it allowed me to look at the emerging systems that are involved with cloud computing, so it only partially matches the learning outcome. The mini test question was looking at NoSQL and evaluating it and as such I got a good looking at emerging trends in database and information systems, so this again only partially matches the learning outcome. These 4 things combined means that the learning outcome is fully matched.

Skill 3. The ability to compare and contrast the features of different database development technologies

The skill to compare and contrast is important and through the following portfolio elements I compared and contrasted features of different database technologies.

The portfolio elements I believe are relevant to this learning outcome are Extended Research Abstract (Database technologies and data models for cloud computing) and the Mini Test Question (Mini Test Question 1). The Extended Research Abstract is relevant as I had to compare and contrast solutions to cloud computing technologies as well as comparing and contrasting research into cloud computing systems but due to it being so narrow it only partially matches the learning outcome. The Mini Test Question is relevant as I had to compare and contrast about NoSQL and column and row databases for these questions and as such this also partially matches the learning outcome as it is again a narrow field, however both of them combined completely matches the learning outcome.

Skill 4. Evidence of critical evaluation of the major developments and issues of databases within the database arena and their support in various application areas

The skill to be able to critically evaluate is important and through the following portfolio elements I critically evaluated the major developments and issues of databases within the database arena and their support in various application areas.

The portfolio elements I believe are relevant to this learning outcome are Extended Research Abstract (Database technologies and data models for cloud computing) and the Mini Test Question (Mini Test Question 1). The Extended Research Abstract is relevant as I had to critically evaluate the cyber security issues that effect cloud computing, this partially matches the learning outcome as it only looks at the issues. The Mini Test Question is relevant as I had to critically evaluate both NoSQL and column and row databases for these questions and as such this also partially matches the learning outcome as it is aonly looking at the major developments within the database arena, however both of them combined completely matches the learning outcome.

	Portfolio Elements			
	Exercise 1 (Portfolio Exercise 1 Relational Algebra and SQL.)	Exercise 2 (Portfolio Exercise 4 Data Warehousing and using Oracle and MongoDB)	Extended Research Abstract (Database technologies and data models for cloud computing)	Mini Test Question (Mini Test Question 1)
K1: Critical appreciation of current and new data models and database systems		√	√	√
K2: Appraisal of current and emerging trends in database and information systems	√	√	√	√
A1: Compare and contrast the features of different database development technologies			√	√
A2: Critically evaluate the major developments and issues of databases within the database arena and their support in various application areas			√	√