Data Essentials Repeat Assessment

K00318145

Dylan Ryan Gleeson

## **Question 1.**

**a)**

**Database relationships** define how tables in a database are linked and how data from multiple tables can be integrated and retrieved. The relationships are established through primary keys and foreign keys.

**b)**

**The threats faced by a database administrator** include many various threats that compromise the database in multiple ways, these threats can be Data Breaches, Data Loss/Corruption, Insider threats, etc.

**c)**

**Domains** refer to the allowable values that a particular attribute in a database can have, e.g. an attribute called “Date” could be restricted to only accepting data in a DD/MM/YYYY format.

**f)**

**Referential Integrity** is a concept in that ensures the consistency and validity of relationships between tables in a relational database. It ensures that foreign keys in one table always refer to valid, existing primary keys in another table.

**g)**

**Database keys** are crucial components for relational databases that maintain data integrity and establish relationships between tables, the main types of database keys are Primary Keys, Foreign Keys, Composite Keys, Candidate Keys.

## **Question 2.**

**a)**

## **Question 3.**

**a)**

1. Each table must have a unique name.
2. Each field must have a unique name.
3. Each table must have a primary key.
4. Each field must have a data type.
5. Tables are subject to Primary keys, Foreign keys and indexes/constraints.

**b)**

## **Question 4.**