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Data Management – D597

Task 1: Relational Database Design and Implementation

**Part 1: Design Document**

**Part A:**

1. Describe a business problem that can be solved with a database solution and is in alignment with the chosen scenario.

HealthFit Innovations has been experiencing some challenges with its increasing volume, variety and velocity of health-related data collected. The way the platform collects data is through various sources that include wearables, electronic health records (EHR’s), medical imaging systems, and patient-reported outcomes. With the current way it is, it lacks the ability to scale and flexibility, which can lead to problems. For example, problems with integration and data processing failures.

1. Purpose a data structure to solve the identified business problem.

The best way to solve this problem is to use an Entity Relationship Diagram (ERD), it will help support a scalable, secure, flexible integration of the data, that is being collected. This will benefit HealthFit Innovations as it will give it the ability to identify relationships that may exist between the data.

1. Justify why a database solution will solve the identified business problem.

Using a database solution will provide HealthFit Innovations with scalable, structured, and integrated solutions for managing lots of data, that will be collected from the wearables. It will also, improve performance and provide support with any analytical work for the future.

1. Explain how the business data will be used within the database solution.

All the data collected from the wearables that the customers are wearing, will have a fast and reliable way to store all the data that is gathered. It will also make easy to access the data using SQL commands to retrieve information that an analyst will need.

**Part B: Create a logical data model for storing data in the database solution.**