

## NR 542 Week 4 Discussion: Database Life Cycle

Based on the study phase of your database life cycle, describe how and why you selected the following:

- Entities, Attributes and determined entity relationships
- Describe in detail the model of design phase you are in with your database project and rationale

### Answer:

One of the critical elements in the lifecycle of a database is understanding the different elements that constitute it and how they are related. These include the entities, attributes, and relationships. This paper examines the study phase of the database life cycle and the present design stage model.

The study phase has been critical in understanding the entire database and how the different elements are related. Notably, the theoretical understanding of the database is essential in relating to actual practice and developing a framework that suits the management issue being addressed (Pascual-Gonzalez, et al., 2016). In the study phase, one of the primary elements is defining the entities, attributes, and relationships. While the entities are the foundation of the database, attributes are characteristics of these entities and relationships are the present interactions.

Relating the understanding to this database lifecycle that involves the management system aimed at addressing privacy and unauthorized access to patient information, the study phase has not only enhanced my knowledge to the different entities such as the patient, healthcare providers, and the malicious actors but also aided in comprehending their relationships through the E-R diagram (Nasiri et al., 2020). For instance, the attributes of the patients include name and personal information. Essentially, these details are the target of malicious actors thus the database should aim at their protection.

The present model in the design phase entails the identification of various challenges within the database, understanding critical information, and developing mitigation strategies to flaws. In the design phase, one of the core factors is examining the performance of the current database and establishing appropriate intervention strategies. In this database, some of the challenges identified are the exposure and limited awareness of the entities in protecting the patient's information (Schwartz et al., 2018). For instance, although the healthcare providers have their usernames and passwords, the effective use of these aspects is still a challenge thus the need to promote their awareness and develop a database security approach that prevents the accessibility of the data. Among the proposed security measures are encryption and having several firewalls to protect the unauthorized entry of malicious actors to the system. While applying the big data technology, the data related activities are also tracked in real-time to identify any unauthorized