Chapter 2 Questions

12. A freestanding data dictionary is helpful in the initial design stages and it allows the designer to enjoy the advantages of having this tool without committing to a particular DBMS. Disadvantages of a freestanding data dictionary are that once the database is created, adjustments to it’s structure might not be entered into the freestanding dictionary and overtime the dictionary will not be an accurate reflection of the database structure.

Advantages of an integrated data dictionary are that the system catalog is always consistent with the actual database structure and it is maintained automatically by the system. Disadvantages are that the integrated data dictionary only logs information about the data that is physically enter into the database and it doesn't help with the design.

13. The data dictionary stores information about the logical structure of the database. Users should not have access to this because there would be the potential for them to accidentally change or delete parts or all of the database structure.

14. Eight uses for a data dictionary:

* Collecting and storing information about data in a central location
* Securing agreement from users and designers about the meanings of data items
* Communicating with users
* Identifying redundancy and inconsistency in data item names
* Keeping track of changes to the database structure
* Determining the impact of changes to the database structure
* Identifying the sources of and responsibility for the correctness of each item
* Recording and accessing metadata

15. A DBA must be technically competent, a good manager, and a skilled communicator. They are responsible for the design , operations, and management of the database.

16. The major functions of the DBA are planning, designing, developing, and managing the database.