

## Reflection Questions

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### Question 1

When a database is offered to the public security is still a very important concept. Even though it may not be hiding information, security insures that no one will intentionally or accidentally corrupt or change any of the data and helps ensure that everything will remain correct and the way it was designed. By creating a superuser you able to ensure that no unwanted changes will be made to the data.

### Question 2

It is important to know where your data is actually stored because in very large databases it can easily be lost or it is moved somewhere not expected.

### Question 3

It is necessary to determine how data will be connected, because if migrations are not done correctly the database will not function properly and data may not be able to accessed.

### Question 4

It is important to carefully consider the design of your database before implementation to avoid any unnecessary costs of having to fix errors. For example, if you are working with an exceptionally large database and half way through building it you realize there is some design error, then you may have to spend a lot of time fixing it or in an even worse event data may be lost or corrupted.

### Question 5

The same output of different queries may be achieved because often different attributes are connected to the same value that you are searching for. This is very beneficial when using databases because it allows for more flexibility when using it. Also in the unfortunate event that some data is missing or corrupt, by being able to access the same results through different queries, the data may be able to become accessed by some other way.

### **Question 6**

If the data in a database is inaccurate or inconsistent, you cannot trust the information that you are receiving from it and therefore it serves no purpose. In the event that data is inaccurate, you may not get the information that you need and errors may occur. In the event that the data is inconsistent, it is possible that it will cause errors or crashes if it is a component of another software system. In either case the database is not helpful and you would be better off with a less sophisticated but accurate database system.

### **Question 7**

Data redundancy is a detriment to database tables because it may make it more difficult to use or interpret the data because of unnecessary clutter. Also, it may skew data or values making the data incorrect (consider situations with duplicate data entries and using the count method in a query).