Answer the following questions:

1. Describe and give an example of the difference between synchronous and asynchronous data operations.

**Answer**

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| **Synchronous data can be synced at the exact time that it is called. Asynchronous data takes time to be called because it is being called over the internet and commands must be sent out to detect the called data. One example is a user's password stored on device which can then be instantly checked with an entered password. An asynchronous example is when a user enters their password but the password is stored on a server and it will take time to check the user’s entered password with the one stored.** |

2. True or False. When an app retrieves data from CloudDB, it first requests the data and then it stops whatever it is doing and waits for the data to arrive. Explain.

**Answer**

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| **True. The app needs the data for it to complete the task that it is doing so it will stop doing everything else until that data is received and it can continue on with its tasks.** |

3. One aspect of abstraction is that it helps to reduce details to focus on what's relevant. How does the use of an external database in this app help reduce detail in the program?

**Answer**

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| **Using an external database allows for less variables to be held across the app and for the storage of the app to be less. It allows for code to be simpler and less complex and easier to understand.** |