# Quick Concepts Check Answer Key Exploring Microsoft Access, Chapter 2

1. **Explain why it is important to “Plan for common fields” when designing database tables.**

Common fields will enable you to create relationships in the database. Setting relationships will help you to extract data from more than one table when creating queries, forms, and reports.

1. **Consider why it is important to set a primary key in a table.**

When designing your database tables, it is important to determine the primary key because this is the field whose values will uniquely identify each record in a table. For example, in a Customers table, the CustomerID field will uniquely identify each customer in the database. The primary key enables you to join the table to a related table via a common field and is indexed for faster data retrieval.

1. **Discuss how the Validation Rule field property helps to control data entry and why that is important.**

The Validation Rule property restricts data entry in a field to ensure that correct data are entered. The validation rule checks the data entered when the user exits the field. If the value entered violates the validation rule, an error message displays and prevents the invalid data from being entered into the field. For example, you can set a validation rule that prevents users from entering invalid dates or values outside of a specific range.

1. **Describe a scenario that may require you to import an Access table into your database.**

If there is an object in an external database (such as a table) that contains valuable data or suits another purpose in your application, there is no need to recreate it entirely. You can import an existing table’s design only or a table with usable data into your database. A common scenario would be a Customers table that exists in a different database that contains data that is applicable to yours.

1. **Discuss the purpose of enforcing referential integrity between two tables.**

Referential integrity helps to guarantee consistency between related tables by enforcing rules in a database that are used to preserve relationships between tables when records are added, deleted, or changed. The purpose is to disallow a value in a related table that does not exist in a primary table; for example, entering an account for a customer who does not exist in the Customers table.

1. **Explain why you would you use the Cascade Update option when setting a relationship.**

You would use the Cascade Update Related Fields option so that when the primary key value is modified in a primary table, Access will automatically update all foreign key values in a related table. For example, if you change a CustomerID value in a Customers table, it will automatically update to his/her related accounts or orders or any other related table.

1. **Describe two database tables that you might design that would contain a one-to-many relationship.**

A bank customer’s personal information is entered into a Customers table one time. The same customer could set up multiple accounts that would be recorded in the Accounts table (i.e., checking, savings, and credit card). The CustomerID would display one time in the Customers table and three times in the Accounts table. Therefore, the relationship between Customers and Accounts would be described as one-to-many.

1. **Compare why you would create a single-table query as opposed to filtering a table.**

A single table query enables you to ask questions about the data stored in a single database table. An example of a query would be to display the accounts with a balance of $5,000 or greater. A query can be saved as a named, permanent object in your database, modified, copied, exported, etc. A table that has been filtered is a temporary view of the datasheet.

1. **Discuss an example of how to use a comparison operator to find certain records in a table.**

Comparison operators enable you to limit the query results to only those records that meet the criteria. For example, if you only want to find accounts that have a balance greater than $5,000, you can limit results by entering >5000 in the Criteria row of the Balance field.

1. **Examine how you would use an AND condition in a query.**

To create an AND condition, you can specify two or more criteria in different fields in the same Criteria row. The query results will display only records that match all criteria. When the criteria are in the same row of the query design grid, Access interprets this as an AND condition. For example, a Customer who uses the “Campus” branch and has a balance greater than $5,000.

1. **Discuss why you would want to copy an existing query.**

You can create a duplicate copy of an existing query to use as the basis for creating a similar query. Rather than starting from scratch, duplicating a query saves time when you need the same tables and fields but with slightly different criteria. A query that displays account balances >5000 can be copied and modified to display balances <=5000 with a minor change to the criterion.

1. **Discuss the advantage of creating a multitable query.**

Multitable queries contain two or more tables and enable you to take advantage of the relationships that have been established in your database. When you extract information from a database with a query, often you will need to pull data from multiple tables. One table may contain the core information that you want, while another table may contain the related data that make the query provide the complete results. The advantage is that data can be stored in separate tables but pulled together to create meaningful information.

1. **Explain a situation where you would use a Total row in a query.**

The Total row enables you to summarize records by using functions such as Sum, Average, Count, etc. You could group accounts together by their branch name and count the number of customers in each branch.

1. **Consider what happens when you create a query with tables that have no common field.**

Access will return every record from both tables rather than limiting the results to only records where there are matching values. The results of the query will be unpredictable and contain many more records than expected.