Nov. 16, 2018

**Final Essay**

Database & SQL

Q 1) The difference between inner and outer join has to do with what data your trying to get. If you only want data that’s true in both tables that would be an inner join. For example the same column with the same data. However, if you want everything from both tables combined, it would be a full outer join. You could also get all data from either the left or the right tables and only some from the other table. This would be a left join or right join.

Q 2) A key is a unique identifier for some data or collection like a table.

Q 3)Primary key ensures that everything in that column will be unique. A unique key also makes everything in that particular column unique. The biggest difference between these two keys is you can have several unique keys in a table but only one primary key. The foreign key is used to link two tables together. Specifically it connects to the primary key in another table.

Q 4)This is done so that you can link the data between these two tables and pull out what you’re looking for.

Q 5)A natural key is an existing key which has data attributes unique to an existing business. An example would be CustomerName.

Q 6)A simple key is one that has only one unique attribute so that all data in that field will be unique like a student ID number (which should be unique).

Q 7)A secondary key is all the other columns in your table which are not primary, unique, or foreign keys. They’re basically the rest of the data.

Q 8)A super key is a set of one or more keys to uniquely identify row(s) in a table. This would be like and Orders table with OrderNumber and CustomerName and DateofOrder combined.

Q 9)Referential integrity is making sure that when referencing a table with something like a foreign key, that the data will be consistent between those two tables columns. Otherwise it will cause errors.

Q 10) The having clause and the where clause are very similar in that they can both help to filter data. The difference is that the having clause is used when creating an aggregate function. The where clause doesn’t work in those instances.

Q 11)Indexes grab a column that’s used as a search key and another used as a pointer key (points to where the data is located in memory). This allows data to be located much faster. Indexes are a way to speed up databases by reducing how many times the data has to be accessed.