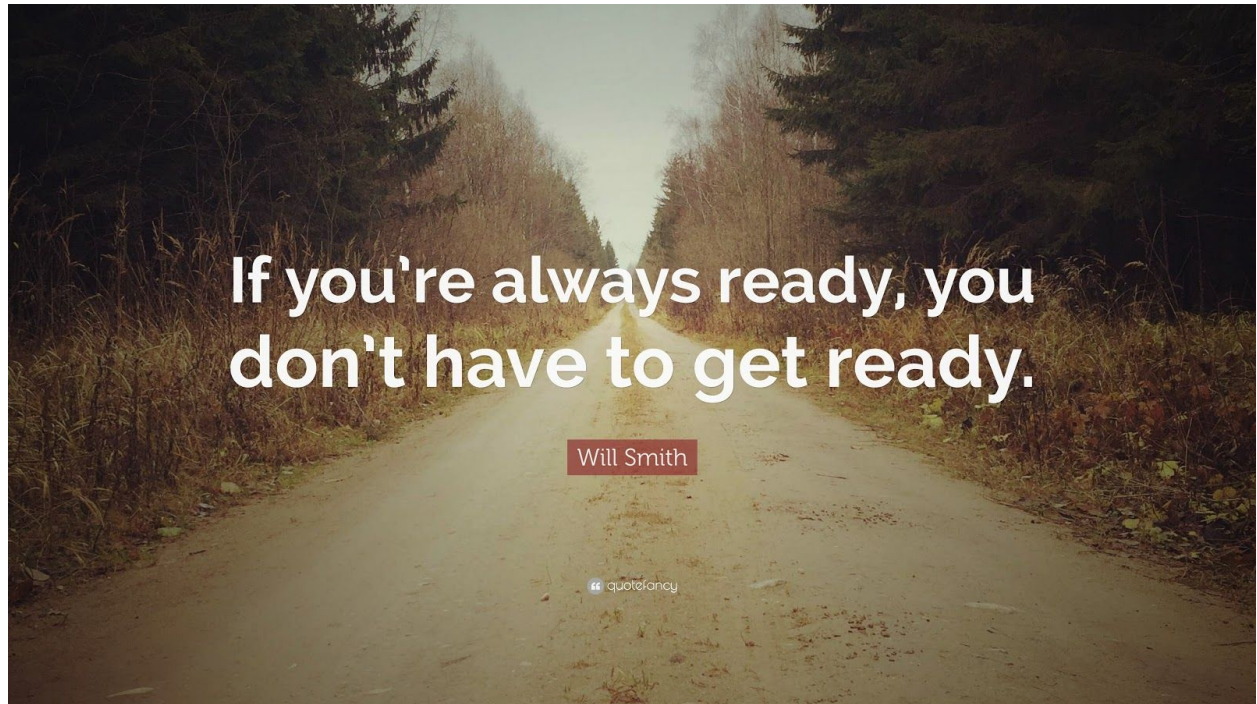Reference: Country-Club-SQL Case Study
Practice Interview Questions

Introduction

Questions about your SQL and database understanding are very common in Data Science job interviews. To set yourself up for success, assess your understanding of SQL with this sample set of interview questions. Each question has a hint, but try not to look at it unless you are totally blanking.

Bear in mind that many interviews will involve questions similar to the Country-Club-SQL case study. To provide the right answers to these questions, you'll need to extract specific pieces of information from a database with well-constructed SQL queries.

13 Questions

1. What are the benefits of performing in-database analytics?

2. Under what conditions would a window function be useful when doing data science with SQL?
   Hint: This link to the Intermediate SQL DataCamp course, particularly chapter 4

3. Explain the difference between databases, database management systems, and querying languages.

4. Describe a situation where left join, but not a right join, is appropriate.
   Hint: Think of this map of the set theory underpinning join operations.

5. What are the main benefits of using a relational database over a large excel spreadsheet?
   Hint: If you're not quite clear on this, have a look at this article.

6. Can you explain the difference between the WHERE and HAVING filters? Can you exemplify a situation where just one, but not the other, of these filters is appropriate?
   Hint: Think about the difference between filtering on results, and filtering on groups.

7. What does the LIMIT command do?

8. How can you use the BETWEEN to select from a range of values? Can you provide an example and recode the same example using an AND statement?

9. How would you find records where the first name of an employee started with the letter P?

10. What are the wild card operators?

11. How would you select values NOT IN a query result given a where statement?

12. How could you find the number of unique neighborhoods that customers come from?

13. How would you concatenate two columns together to make a new column?