 📚 **Lesson** **02.** | Querying Data in SQL

[SELECT & FROM Practice](#spwth0vj98pt)

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 **SELECT & FROM Practice**

— Introduction to Databases

PROMPT: This practice set will focus on the **sales\_data\_cars** table, which includes data about car sales listings in two regions in California.

1. Write a query that returns the entire table.

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| SELECT \* FROM sales\_data\_cars |

1. Using the application interface, find out how many sales are represented in the data table.

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| SELECT COUNT(\*) FROM sales\_data\_cars  2500 |

1. Look for the listing\_region column. Based on what you see, what two regions are represented in this data?

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| SELECT DISTINCT listing\_region  FROM sales\_data\_cars  Los Angeles, San Francisco |

1. Say we wanted to compare the average price at which cars are sold in each of these California regions. Write a query that returns just the two columns that would help you answer that question. Note: You won’t be able to actually answer this question with what you've learned so far, but you’ll soon learn the keywords to do this!

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| SELECT listing\_region, quoted\_list\_price  FROM sales\_data\_cars |

1. SELECTing the right columns to return often requires some careful thought. Say we were interested in seeing which car manufacturer produced cars with the highest average combined fuel mileage (city + highway), excluding any cars with electric or hybrid engines. Which columns would you need your query to return? Take a close look at the data and write a query selecting the columns that would help you answer this question (once you have some additional SQL skills!)

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| fuel\_economy\_city, fuel\_economy\_highway,fuel\_type |

 **ORDER BY Practice**

— Querying Data

PROMPT: Practice using the ORDER BY keyword by looking at notable players from the 2019-20 NBA season, found in the **nba\_players** table.

1. Write a query that returns player names and ages, sorting from the oldest to the youngest.

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| select  name,  age  from nba\_players  order by 2 desc |

1. Who was the oldest player during that season?

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| Vince Carter |

1. There’s been a recent trend towards higher scoring in the NBA, driven by three-point scoring. Is the player with the most three point attempts (three\_pt\_attempts) the same player as the player with the highest average points per game (points\_per\_game)? If so, what is their name? If not, how many fewer three-point attempts did the points leader make?

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| select  name,  three\_pt\_attempts  from nba\_players  order by 2 DESC  James Harden |

|  |
| --- |
| select  name,  points\_per\_game  from nba\_players  order by 2 DESC  James Harden |

1. Among those players with at least 60 games played, which ones have the lowest turnover rate (**turnover\_rate**)? With the skills you know right now, you may need to scroll through some output to find the answer — but a good query will require less searching!

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| select name, turnover\_rate  from nba\_players  where games\_played >= 60  order by turnover\_rate |

 **LIMIT & OFFSET Practice**

— Querying Data

PROMPT: Survey some data from the **spotify\_tracks** table, which presents music features calculated by the Spotify algorithm on a variety of music tracks.

1. Write a query that returns the artist name, track name, and four track properties: danceability, energy, loudness, and tempo. Limit the output to 100 rows -- trying to return all of the rows will take a bit of time! In addition, you will probably want to **save this query**: you’ll be building off of it again in a future practice.

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| select  artist\_name,  track\_name,  danceability,  energy,  loudness,  tempo  from spotify\_tracks  limit 100 |

1. The last row in the output should be a track by Armin Van Buuren. What is that track’s energy rating?

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| 0.905 |

1. Let’s take another sample of the data table. Use OFFSET to look at 100 rows after skipping the first 1000. Most of the tracks in this part of the table are from a particular artist. What is that artist’s name?

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| select  artist\_name,  track\_name,  danceability,  energy,  loudness,  tempo  from spotify\_tracks  limit 100  offset 1000  Los Cadetes De Linares |

1. Manually scan through the output. How many tracks in this section are **NOT** by that particular artist?

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| 5 |