✓ **Congratulations! You passed!**
TO PASS 80% or higher

[Keep Learning]

GRADE
100%

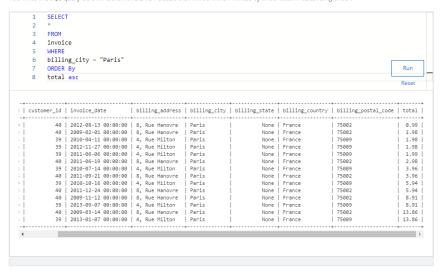# Weekly challenge 1

LATEST SUBMISSION GRADE
100%

1. What is the goal of the analysis phase of the data analysis process?

   1 / 1 point

   ○ To make generalizations about data

   ◉ To identify trends and relationships in data

   ○ To generate new data

   ○ To describe data structures

   ✓ **Correct**
   In the data analysis process, the goal of analysis is to identify trends and relationships within that data so you can accurately answer the question you're asking.

2. During which of the four phases of analysis do you compare your data to external sources?

   1 / 1 point

   ○ Organize data

   ○ Format and adjust data

   ○ Transform data

   ◉ Get input from others

   ✓ **Correct**
   Comparing your data to external sources occurs while getting input from others.

3. Which of the following actions might occur when transforming data? Select all that apply.

   1 / 1 point

   ☑ Make calculations based on your data

   ✓ **Correct**
   Transforming data means identifying relationships and patterns between the data, and making calculations based on the data you have.

   ☑ Identify a pattern in your data

   ✓ **Correct**
   Transforming data means identifying relationships and patterns between the data, and making calculations based on the data you have.

   ☑ Recognize relationships in your data

   ✓ **Correct**
   Transforming data means identifying relationships and patterns between the data, and making calculations based on the data you have.

   ☐ Eliminate irrelevant info from your data

4. Fill in the blank: Filtering involves showing only the data that meets a specific _____ while hiding the rest.

   1 / 1 point

   ○ observation

   ○ model

   ◉ criteria

   ○ measure

   ✓ **Correct**
   Filtering involves showing only the data that meets a specific criteria while hiding the rest.

5. A data analyst is sorting data in a spreadsheet. Which tool are they using if all of the data is sorted by the ranking of a specific sorted column and data across rows is kept together?

○ Sort Document

○ Sort Together

◉ Sort Sheet

○ Sort Rank

✓ **Correct**

Sort sheet sorts all of the data in a spreadsheet by the ranking of a specific sorted column. Also, data across rows is kept together.

6. A data analyst uses a function to sort a spreadsheet range between cells H1 and K65. They sort in ascending order by the first column, Column H. What is the syntax they are using?

◉ =SORT(H1:K65, 1, TRUE)

○ =SORT(H1:K65, A, FALSE)

○ =SORT(H1:K65, A, TRUE)

○ =SORT(H1:K65, 1, FALSE)

✓ **Correct**

The syntax is =SORT(H1:K65, 1, TRUE). The first part of the function sorts the data in the specified range. The 1 represents the first column. And a TRUE statement sorts in ascending order.

7. You are querying a database that contains data about music. You are only interested in data related to the jazz musician Miles Davis. The names of the musicians are listed in the *composer* column.

You write the SQL query below. Add a WHERE clause that will return only data about music by Miles Davis.

```
1   SELECT
2   *
3   FROM
4   track
5   WHERE
6   composer = "Miles Davis"
```

Run

Reset

```
+----------+---------------------------------+----------+--------------+----------+-------------+--------------+----------+------------+
| track_id | name                            | album_id | media_type_id | genre_id | composer    | milliseconds |    bytes | unit_price |
+----------+---------------------------------+----------+--------------+----------+-------------+--------------+----------+------------+
|      597 | Now's The Time                  |       48 |           1  |       2  | Miles Davis |       197459 |  6358868 |      0.99  |
|      598 | Jeru                            |       48 |           1  |       2  | Miles Davis |       193410 |  6222536 |      0.99  |
|      599 | Compulsion                      |       48 |           1  |       2  | Miles Davis |       345025 | 11254474 |      0.99  |
|      600 | Tempus Fugit                    |       48 |           1  |       2  | Miles Davis |       231784 |  7548434 |      0.99  |
|      601 | Walkin'                         |       48 |           1  |       2  | Miles Davis |       807392 | 26411634 |      0.99  |
|      602 | 'Round Midnight                 |       48 |           1  |       2  | Miles Davis |       357459 | 11590284 |      0.99  |
|      603 | Bye Bye Blackbird               |       48 |           1  |       2  | Miles Davis |       476003 | 15549224 |      0.99  |
|      604 | New Rhumba                      |       48 |           1  |       2  | Miles Davis |       277968 |  9018024 |      0.99  |
|      605 | Generique                       |       48 |           1  |       2  | Miles Davis |       168777 |  5437017 |      0.99  |
|      606 | Summertime                      |       48 |           1  |       2  | Miles Davis |       200437 |  6461370 |      0.99  |
|      607 | So What                         |       48 |           1  |       2  | Miles Davis |       564009 | 18360449 |      0.99  |
|      608 | The Pan Piper                   |       48 |           1  |       2  | Miles Davis |       233769 |  7593713 |      0.99  |
|      609 | Someday My Prince Will Come     |       48 |           1  |       2  | Miles Davis |       544078 | 17890773 |      0.99  |
|      610 | My Funny Valentine (Live)       |       49 |           1  |       2  | Miles Davis |       907520 | 29416781 |      0.99  |
|      611 | E.S.P.                          |       49 |           1  |       2  | Miles Davis |       330684 | 11079866 |      0.99  |
|      612 | Nefertiti                       |       49 |           1  |       2  | Miles Davis |       473495 | 15478450 |      0.99  |
|      613 | Petits Machins (Little Stuff)   |       49 |           1  |       2  | Miles Davis |       487392 | 16131272 |      0.99  |
|      614 | Miles Runs The Voodoo Down      |       49 |           1  |       2  | Miles Davis |       843964 | 27967919 |      0.99  |
|      615 | Little Church (Live)            |       49 |           1  |       2  | Miles Davis |       196101 |  6273225 |      0.99  |
|      616 | Black Satin                     |       49 |           1  |       2  | Miles Davis |       316682 | 10529483 |      0.99  |
|      617 | Jean Pierre (Live)              |       49 |           1  |       2  | Miles Davis |       243461 |  7955114 |      0.99  |
|      618 | Time After Time                 |       49 |           1  |       2  | Miles Davis |       220734 |  7292197 |      0.99  |
|      619 | Portia                          |       49 |           1  |       2  | Miles Davis |       378775 | 12520126 |      0.99  |
+----------+---------------------------------+----------+--------------+----------+-------------+--------------+----------+------------+
```

What track by Miles Davis appears in row 1 of your query result?

○ Summertime

◉ Now's The Time

○ So What

○ Compulsion

✓ **Correct**

The clause WHERE composer = "Miles Davis" will return only data about music by Miles Davis. The complete query is SELECT * FROM track WHERE composer = "Miles Davis". The WHERE clause filters results that meet certain conditions. The WHERE clause includes the name of the column, an equals sign, and the value(s) in the column to include.

The track Now's The Time by Miles Davis appears in row 1 of your query result.

8.You are working with a database that contains invoice data about online music purchases. You are only interested in invoices sent to customers located in the city of Paris. You want to sort the invoices by order total in ascending order. The order totals are listed in the *total* column.

You write the SQL query below. Add an ORDER BY clause that will sort the invoices by order total in ascending order.

```
1    SELECT
2    *
3    FROM
4    invoice
5    WHERE
6    billing_city = "Paris"
7    ORDER By
8    total asc
```

Run

Reset

```
+--------------+--------------+----------------------+----------------+--------------+----------------+----------------------+--------+
| customer_id  | invoice_date |     billing_address  |  billing_city  | billing_state | billing_country | billing_postal_code | total  |
+--------------+--------------+----------------------+----------------+--------------+----------------+----------------------+--------+
|          40  | 2012-08-13 00:00:00 | 8, Rue Hanovre | Paris          |         None  | France         | 75002                | 0.99   |
|          40  | 2009-02-01 00:00:00 | 8, Rue Hanovre | Paris          |         None  | France         | 75002                | 1.98   |
|          39  | 2010-04-11 00:00:00 | 4, Rue Milton  | Paris          |         None  | France         | 75009                | 1.98   |
|          39  | 2012-11-27 00:00:00 | 4, Rue Milton  | Paris          |         None  | France         | 75009                | 1.98   |
|          39  | 2011-06-06 00:00:00 | 4, Rue Milton  | Paris          |         None  | France         | 75009                | 1.99   |
|          40  | 2011-06-19 00:00:00 | 8, Rue Hanovre | Paris          |         None  | France         | 75002                | 2.98   |
|          39  | 2010-07-14 00:00:00 | 4, Rue Milton  | Paris          |         None  | France         | 75009                | 3.96   |
|          40  | 2011-09-21 00:00:00 | 8, Rue Hanovre | Paris          |         None  | France         | 75002                | 3.96   |
|          39  | 2010-10-16 00:00:00 | 4, Rue Milton  | Paris          |         None  | France         | 75009                | 5.94   |
|          40  | 2011-12-24 00:00:00 | 8, Rue Hanovre | Paris          |         None  | France         | 75002                | 5.94   |
|          40  | 2009-11-12 00:00:00 | 8, Rue Hanovre | Paris          |         None  | France         | 75002                | 8.91   |
|          39  | 2013-09-07 00:00:00 | 4, Rue Milton  | Paris          |         None  | France         | 75009                | 8.91   |
|          40  | 2009-03-14 00:00:00 | 8, Rue Hanovre | Paris          |         None  | France         | 75002                | 13.86  |
|          39  | 2013-01-07 00:00:00 | 4, Rue Milton  | Paris          |         None  | France         | 75009                | 13.86  |
+--------------+--------------+----------------------+----------------+--------------+----------------+----------------------+--------+
```

What total appears in row 6 of your query result?

○ 3.96

● 2.98

○ 0.99

○ 8.91

✓ **Correct**

The clause `ORDER BY total` will sort the invoices order total in ascending order. The complete query is `SELECT * FROM invoice WHERE billing_city = "Paris" ORDER BY total`. The ORDER BY clause tells the database how to organize the data it returns. The ORDER BY clause sorts data in ascending order by default.

The total 2.98 appears in row 6 of your query result.