# UNDERSTANDING UNIONS

We can **union** data sources to combine two or more tables by **appending** values (rows) from one table to another.
To **union** the data in Tableau data source, the tables must come from the same connection.

Though union is not a type of join, union is another method for combining two or more tables by appending rows of data from one table to another.

# UNDERSTANDING UNIONS

For best results, the tables that we combine using a **union** must have the **same structure**. That is, each table must have the **same number of fields**, and **related fields** must have **matching field names** and **data types**

Thus, **Joins** adds **additional columns** while **Unions adds additional rows** to the **resulting data**.

For example, suppose we have the following sales information stored in four tables, separated by Year. The table names are "2016" "2017", "2018" and "2019"
A union of these tables creates the following single table that contains all rows from all the separate tables.

# DETAILS OF THE DATA SOURCE USED FOR UNIONS

We will be using the below mentioned fictious spreadsheet having 4 tables

## 2007 Table

| Team | Venue | Runs |
|---|---|---|
| India | Sabina Park | 3500 |
| Sri Lanka | Queen's Park Oval | 2700 |
| West Indies | Kensington Oval Cricket Ground | 1760 |
| Australia | Sabina Park | 4500 |

## 2011 Table

| Team | Venue | Runs |
|---|---|---|
| India | Eden Garden | 5600 |
| Sri Lanka | Eden Garden | 3000 |
| West Indies | Wankhede Stadium | 2345 |
| Australia | Wankhede Stadium | 1900 |

## 2015 Table

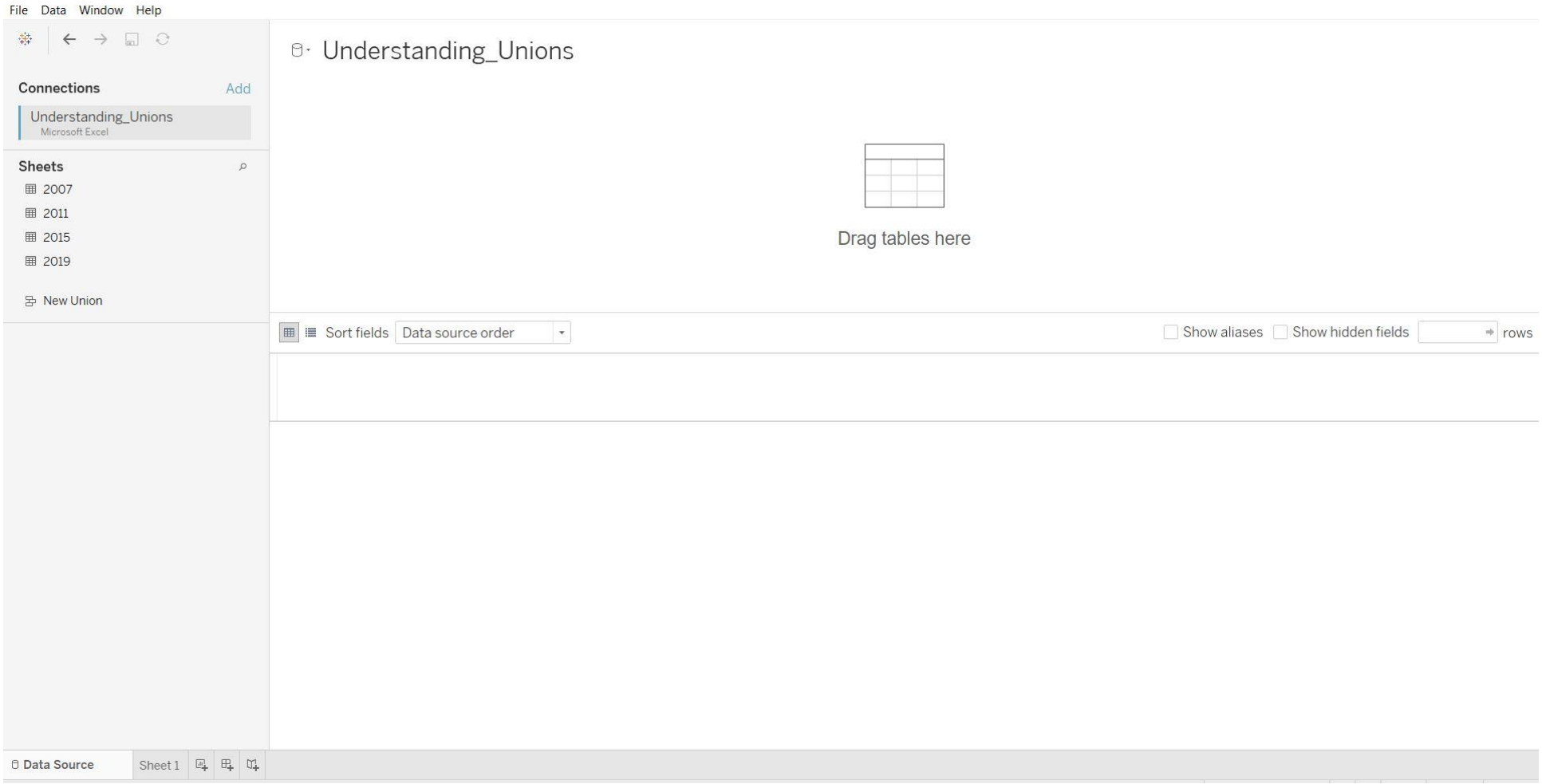
| Team | Venue | Runs |
|---|---|---|
| India | The Gabba | 3567 |
| Sri Lanka | The Gabba | 2367 |
| West Indies | Melbourne Cricket Ground | 1904 |
| Australia | Melbourne Cricket Ground | 3000 |

## 2019 Table

| Team | Venue | Runs |
|---|---|---|
| India | Edgbaston | 2456 |
| Sri Lanka | Lords | 1900 |
| West Indies | Edgbaston | 4000 |
| Australia | Lords | 2367 |

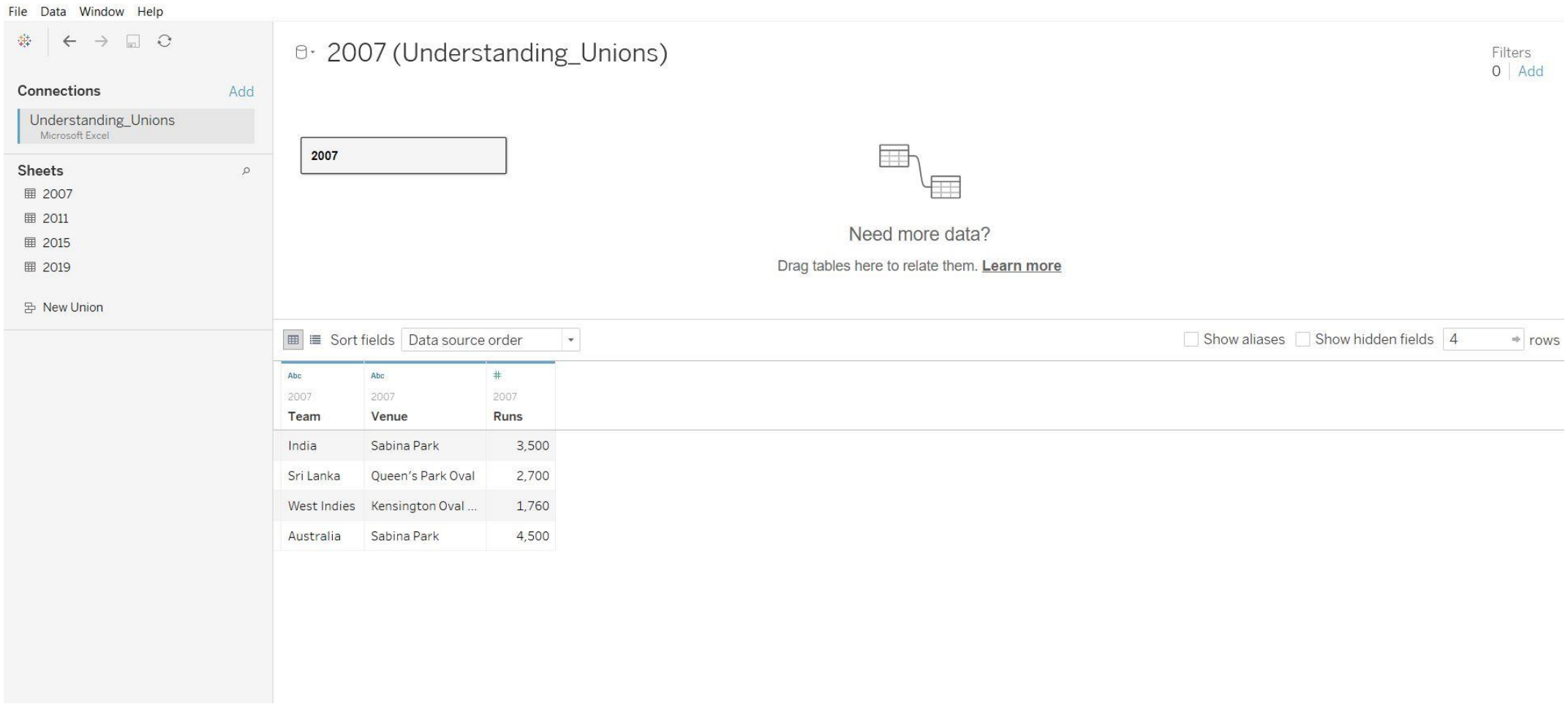
# STEPS TO CREATE AN UNION

**Step 1:** Connect to the source e.g.: **Understanding_Unions.xlsx**



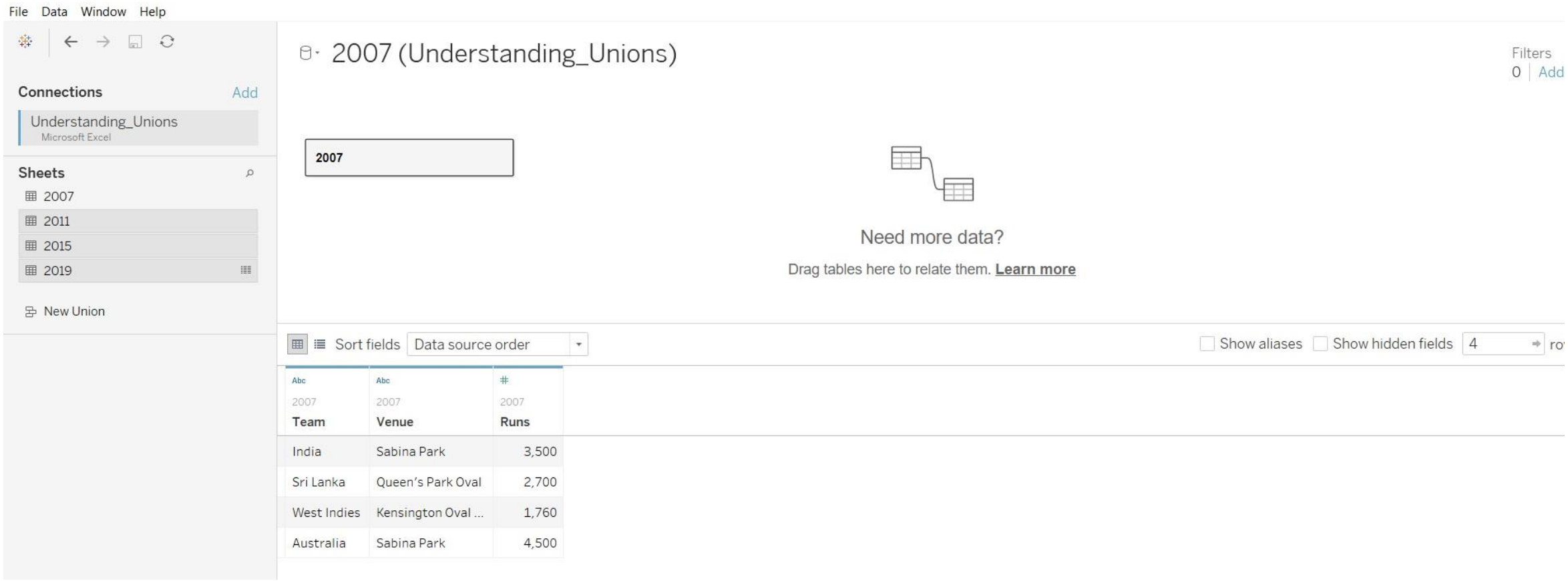
# STEPS TO CREATE AN UNION

**Step 2:** Drag the first table **2007** to the canvas area



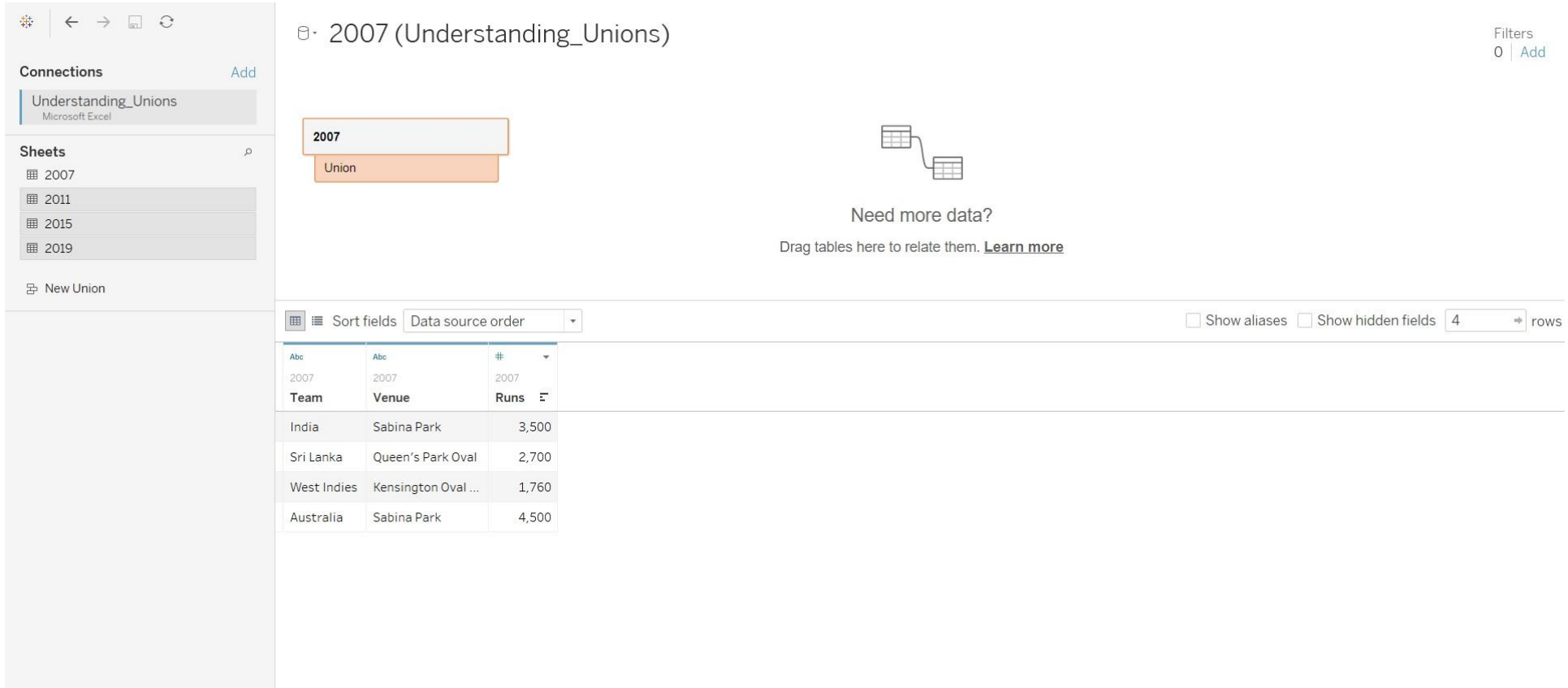
# STEPS TO CREATE AN UNION

**Step 3:** Press Shift and select all the remaining tables 2011, 2015 & 2019



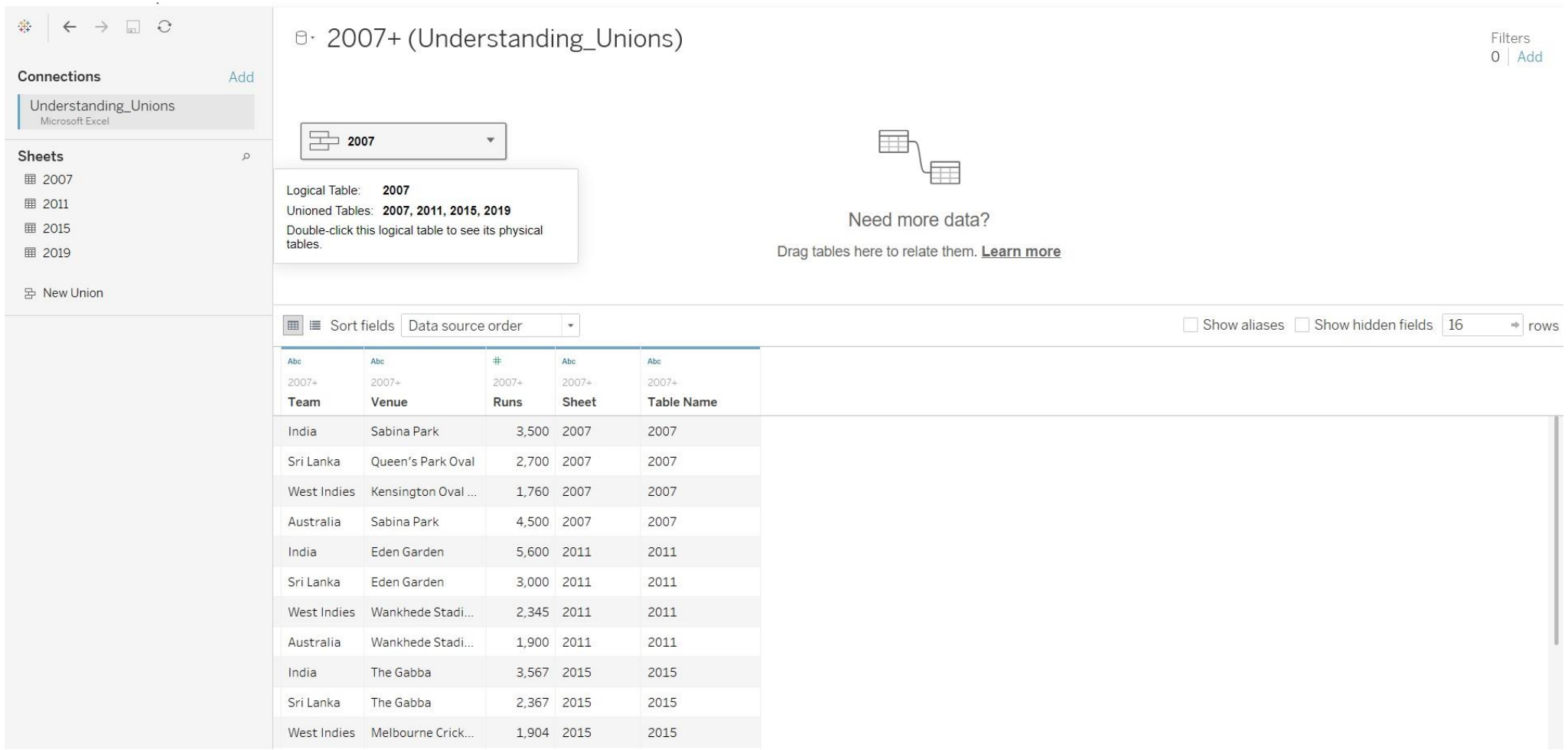
# STEPS TO CREATE AN UNION

**Step 4:** Drag the tables from the left pane and drag and drop it directly below the first table when you see the **Union** orange color box



# STEPS TO CREATE AN UNION

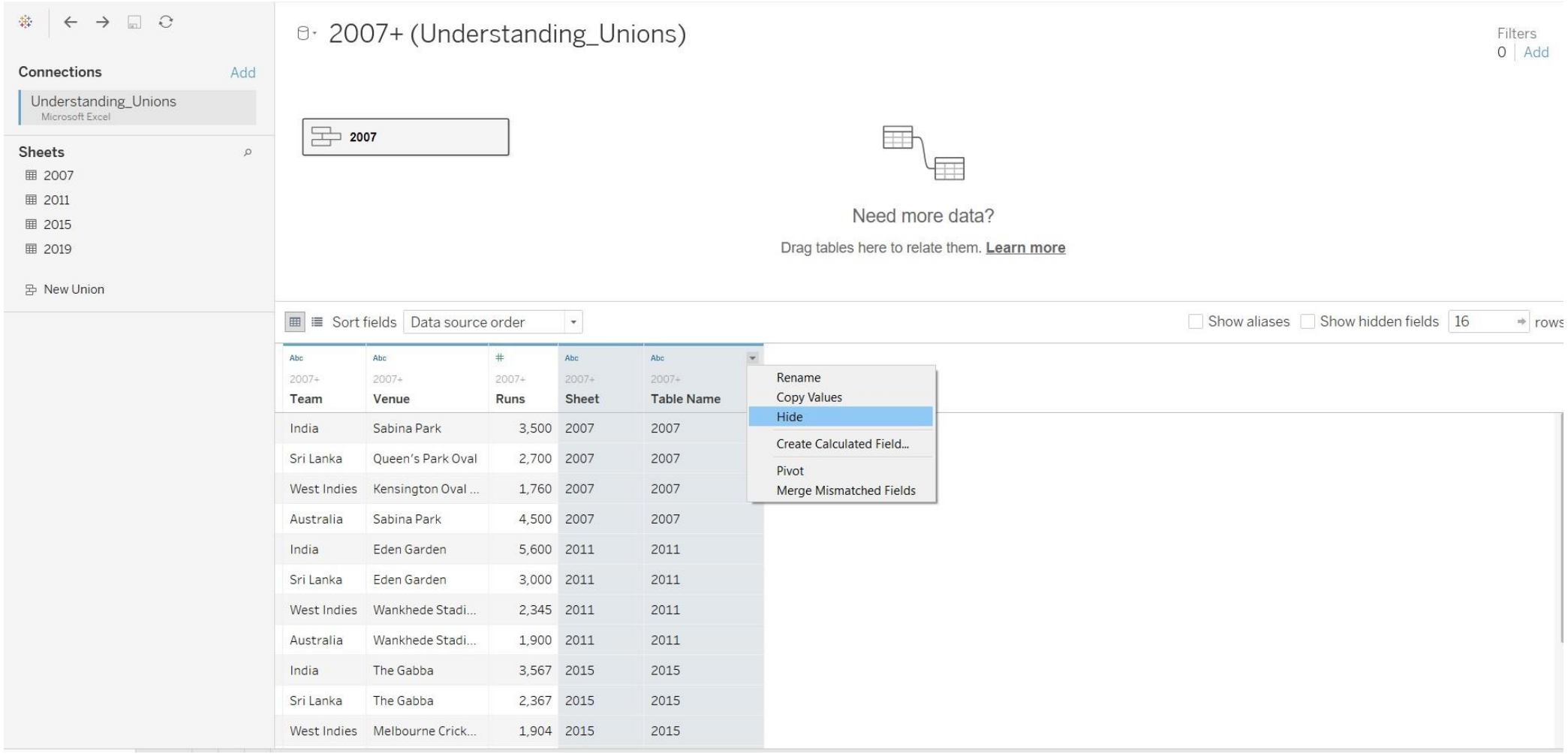
**Step 5:** Now all tables 2007, 2011, 2015 and 2019 are unioned




| 2007+ Team | 2007+ Venue | 2007+ Runs | 2007+ Sheet | 2007+ Table Name |
|---|---|---|---|---|
| India | Sabina Park | 3,500 | 2007 | 2007 |
| Sri Lanka | Queen's Park Oval | 2,700 | 2007 | 2007 |
| West Indies | Kensington Oval ... | 1,760 | 2007 | 2007 |
| Australia | Sabina Park | 4,500 | 2007 | 2007 |
| India | Eden Garden | 5,600 | 2011 | 2011 |
| Sri Lanka | Eden Garden | 3,000 | 2011 | 2011 |
| West Indies | Wankhede Stadi... | 2,345 | 2011 | 2011 |
| Australia | Wankhede Stadi... | 1,900 | 2011 | 2011 |
| India | The Gabba | 3,567 | 2015 | 2015 |
| Sri Lanka | The Gabba | 2,367 | 2015 | 2015 |
| West Indies | Melbourne Crick... | 1,904 | 2015 | 2015 |

# STEPS TO CREATE AN UNION

**Step 6:** The newly created columns Sheet and Table Name can be hidden




| Team | Venue | Runs | Sheet | Table Name |
|---|---|---|---|---|
| India | Sabina Park | 3,500 | 2007 | 2007 |
| Sri Lanka | Queen's Park Oval | 2,700 | 2007 | 2007 |
| West Indies | Kensington Oval ... | 1,760 | 2007 | 2007 |
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| India | Eden Garden | 5,600 | 2011 | 2011 |
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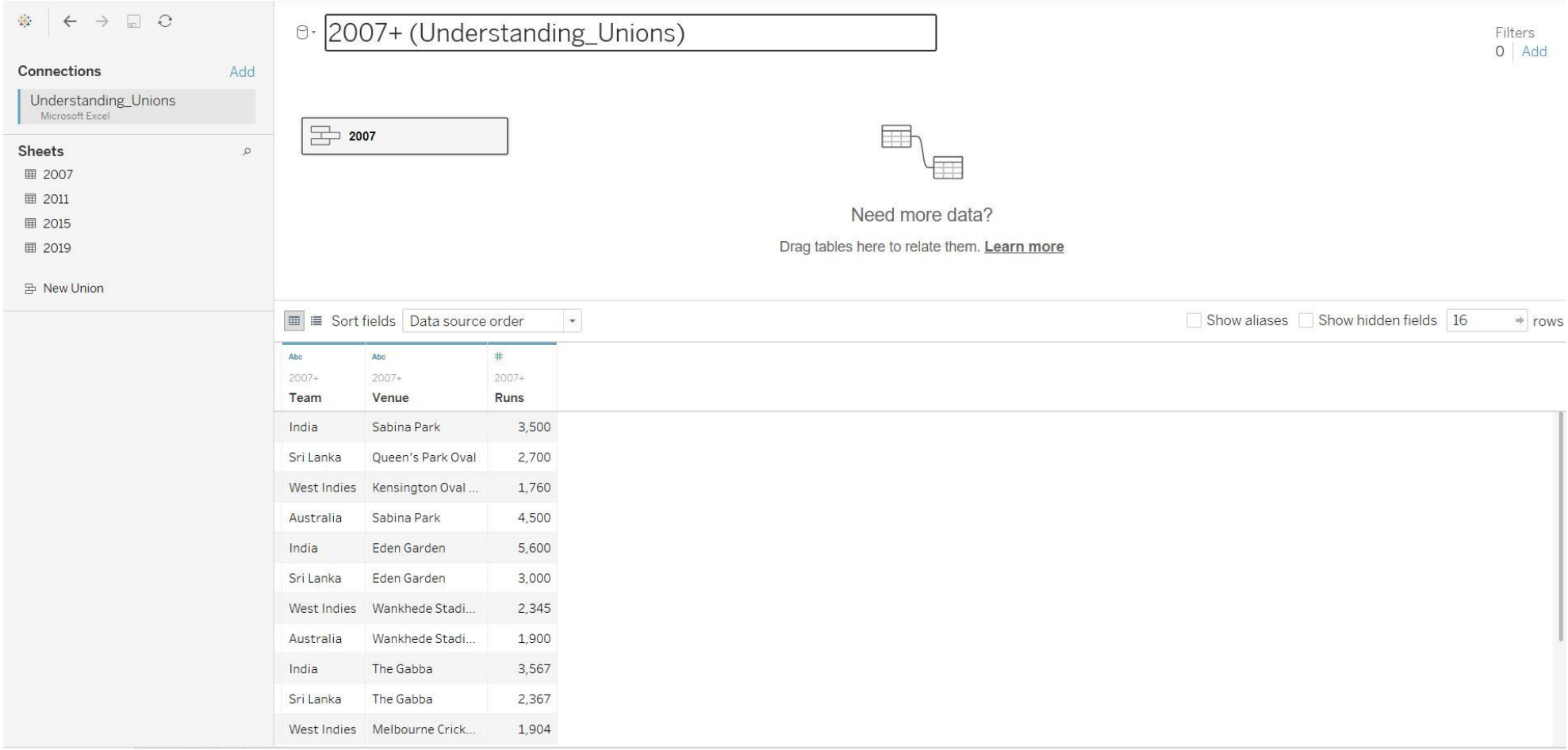
| West Indies | Wankhede Stadi... | 2,345 | 2011 | 2011 |
| Australia | Wankhede Stadi... | 1,900 | 2011 | 2011 |
| India | The Gabba | 3,567 | 2015 | 2015 |
| Sri Lanka | The Gabba | 2,367 | 2015 | 2015 |
| West Indies | Melbourne Crick... | 1,904 | 2015 | 2015 |

# STEPS TO CREATE AN UNION

**Step 7:** This is the final unioned structure with **16 rows**
A **union** has created a **single table** that contains **all rows** from all the **separate tables**




| Abc 2007+ Team | Abc 2007+ Venue | # 2007+ Runs |
|---|---|---|
| India | Sabina Park | 3,500 |
| Sri Lanka | Queen's Park Oval | 2,700 |
| West Indies | Kensington Oval ... | 1,760 |
| Australia | Sabina Park | 4,500 |
| India | Eden Garden | 5,600 |
| Sri Lanka | Eden Garden | 3,000 |
| West Indies | Wankhede Stadi... | 2,345 |
| Australia | Wankhede Stadi... | 1,900 |
| India | The Gabba | 3,567 |
| Sri Lanka | The Gabba | 2,367 |
| West Indies | Melbourne Crick... | 1,904 |