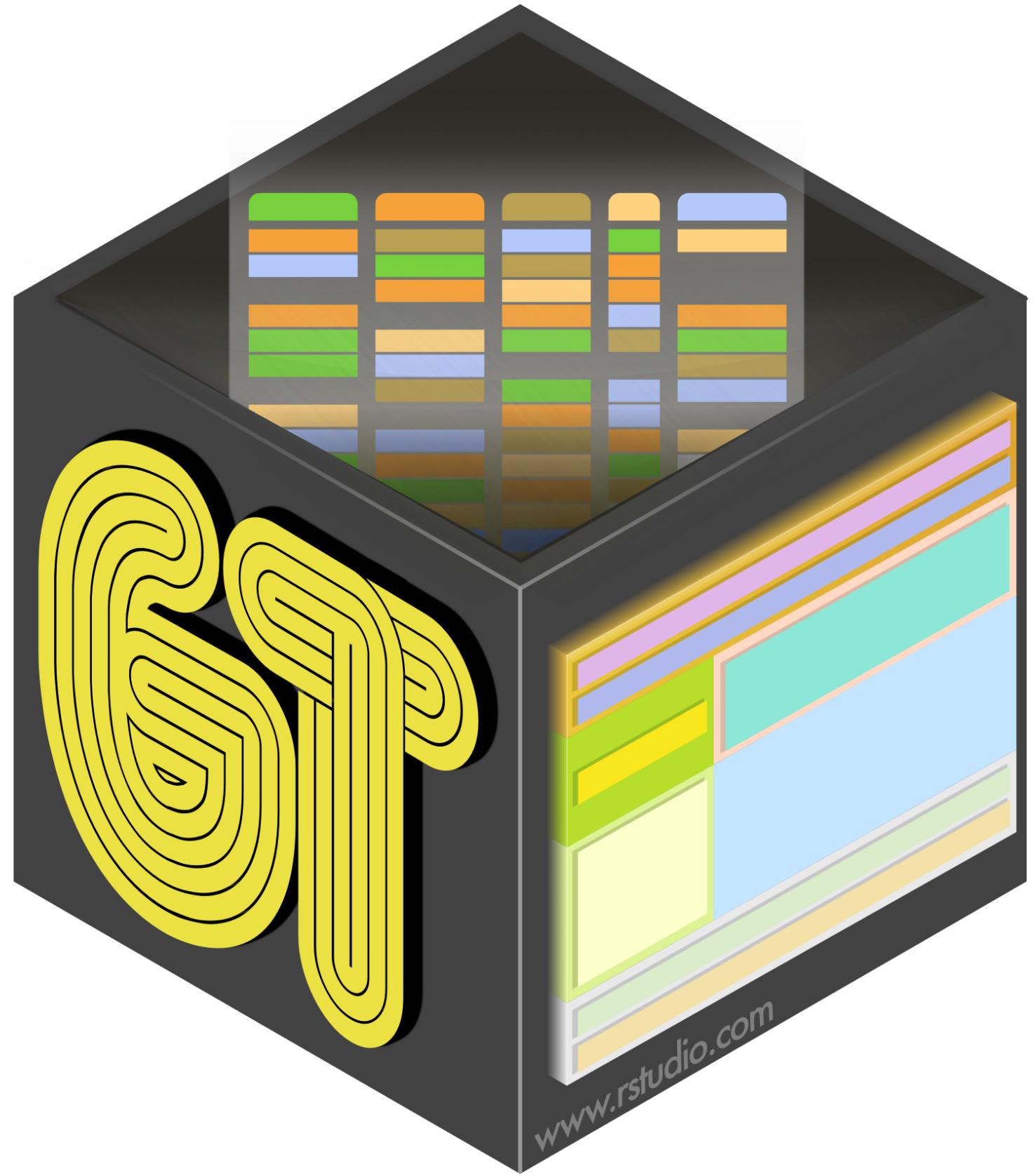
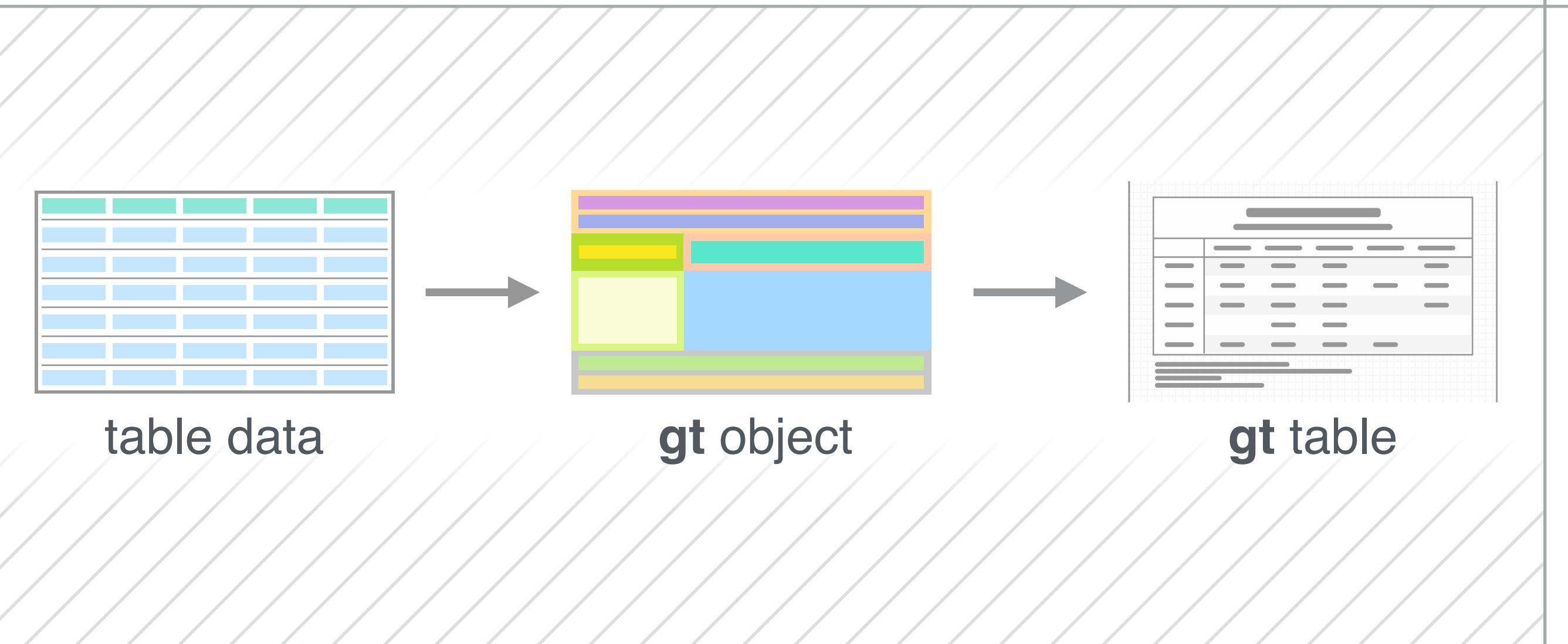


# An Introduction to the `gt` Package



rich-iannone

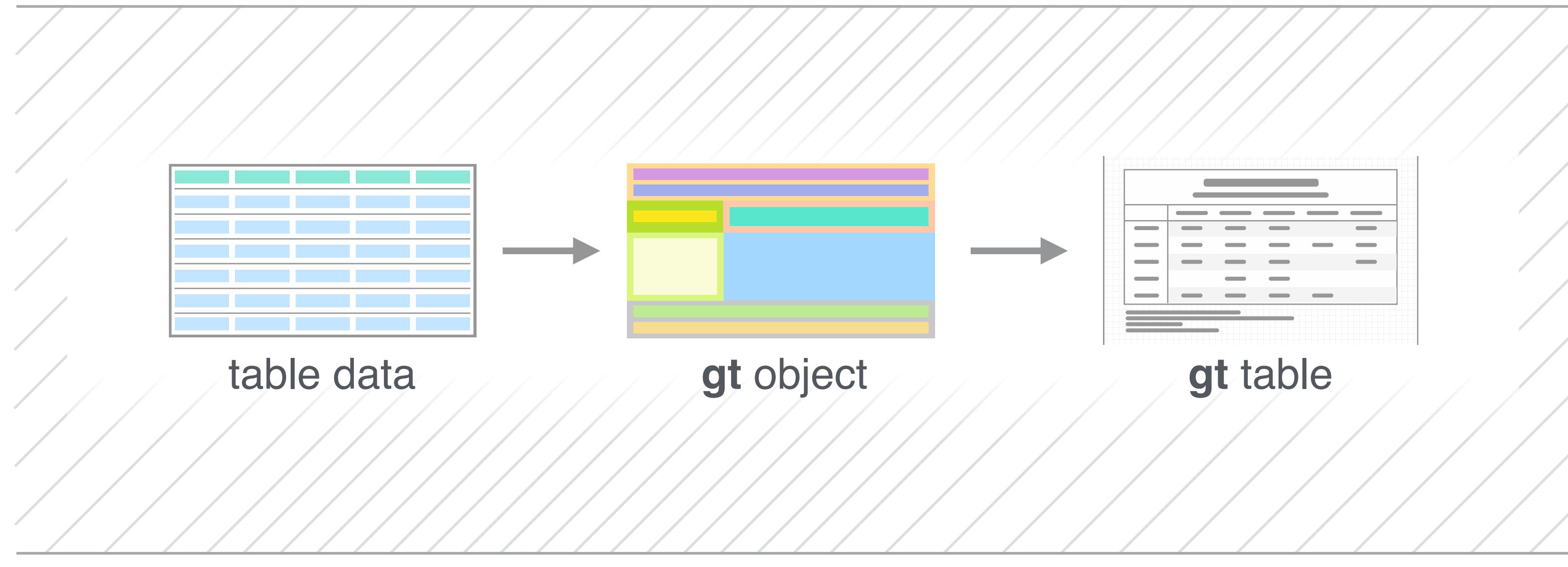


@riannone



rich@rstudio.com

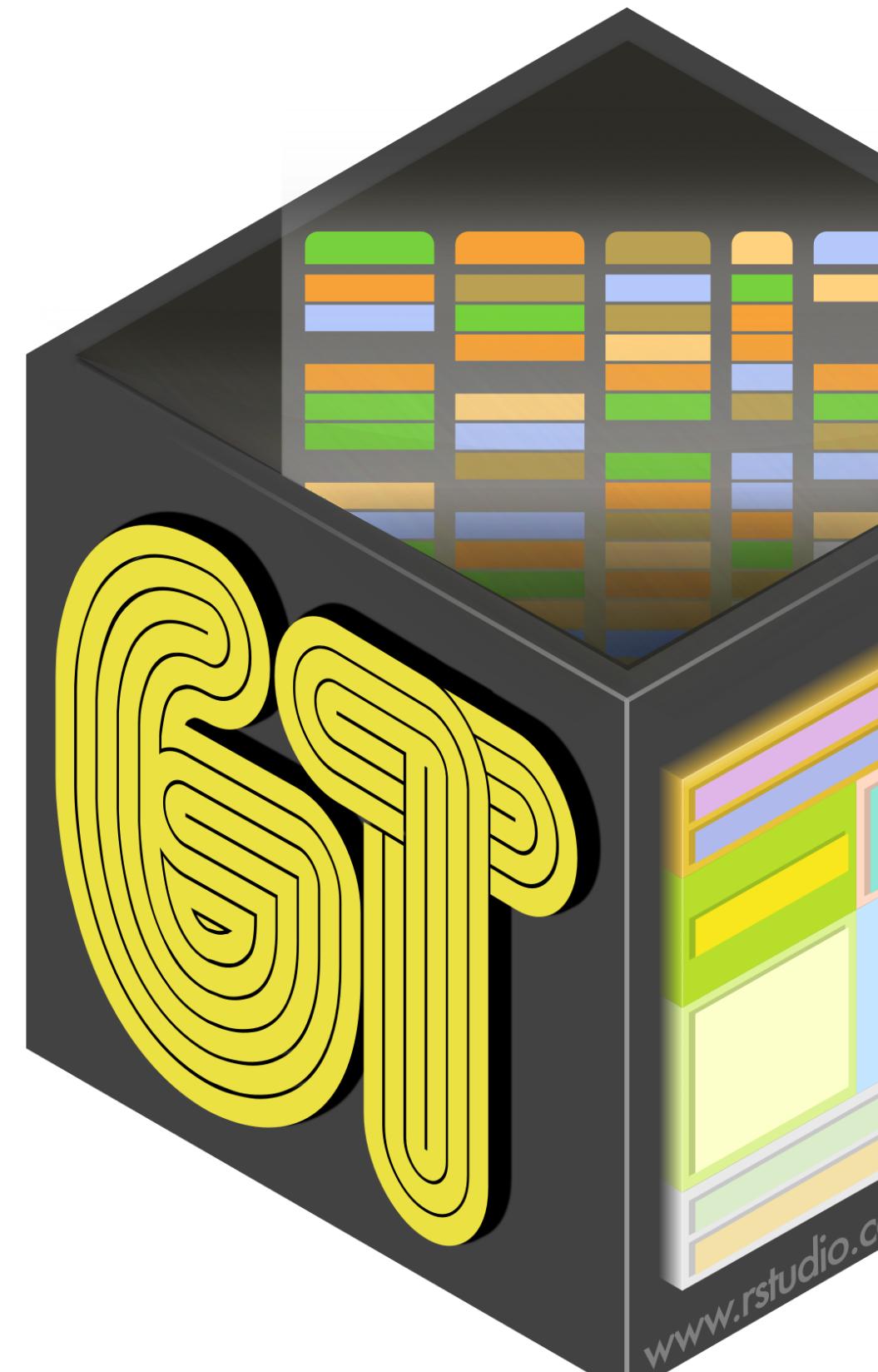
# An Introduction to the **gt** Package



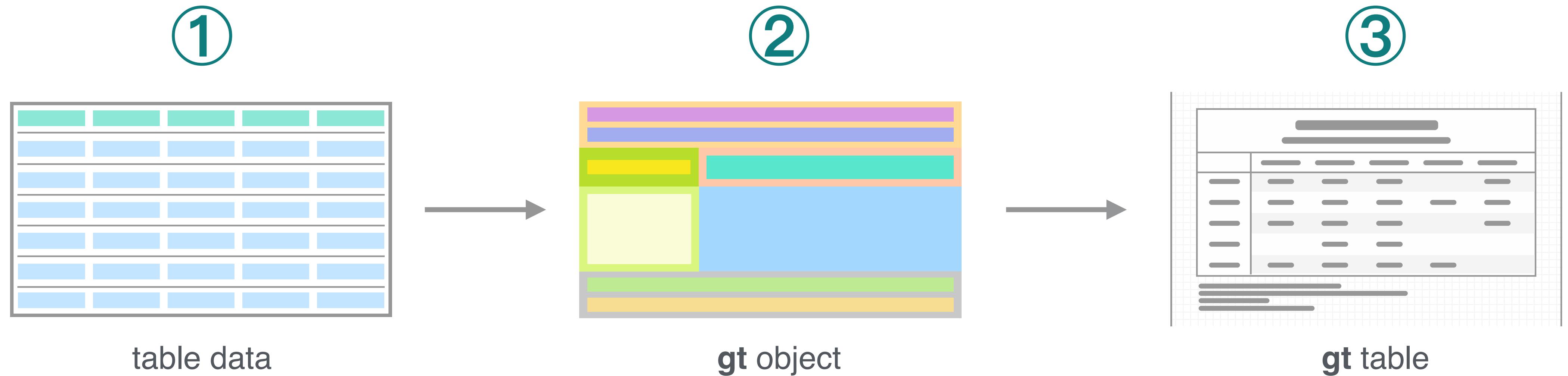
The **gt** package lets us create display tables with a declarative interface, allowing us to fine-tune the final appearance.

Integrate the tables in **R Markdown** docs and **Shiny** applications.

Program with **gt** to make tables as output objects in packages.



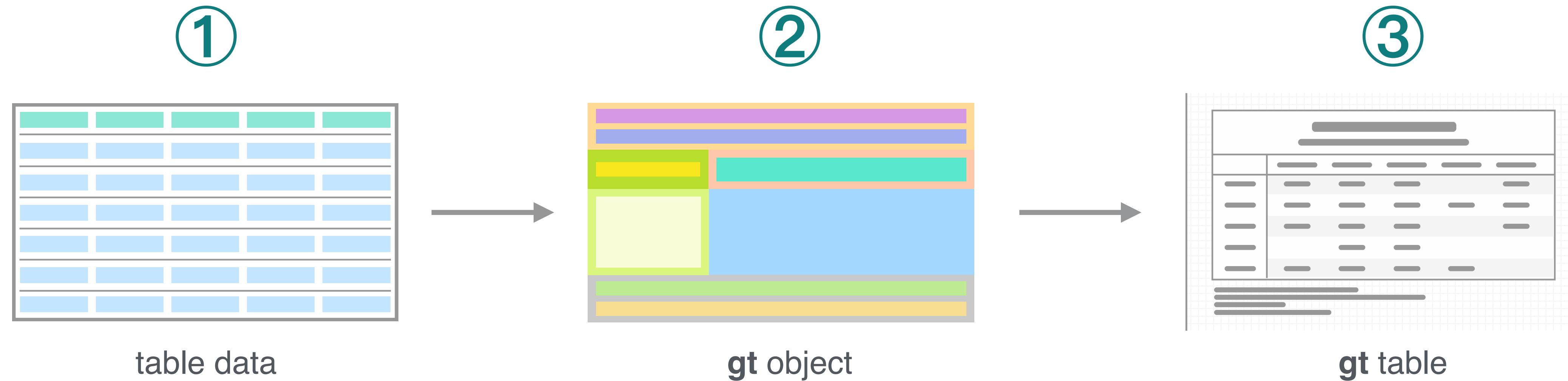
# *The Typical Workflow for Making Tables with **gt***



Put your data in a form  
that's reasonably close to  
the expected form of the  
display table.

Use **dplyr** and **tidyverse** and  
other great Tidyverse 📦s.

# *The Typical Workflow for Making Tables with **gt***



Put your data in a form  
that's reasonably close to  
the expected form of the  
display table.

Use **dplyr** and **tidyr** and  
other great Tidyverse 📦s.

Add table components,  
group rows together, add  
spanner labels, footnotes,  
format cells, add styles...

Use **gt**'s functions to build.  
Preview in **RStudio**.

# *The Typical Workflow for Making Tables with **gt***

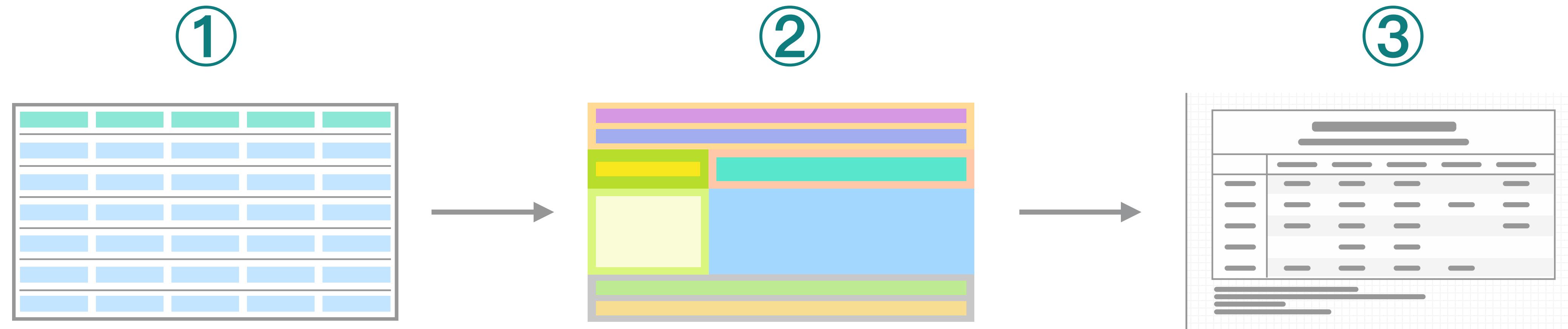


table data

Put your data in a form that's reasonably close to the expected form of the display table.

Use **dplyr** and **tidyr** and other great Tidyverse s.

②

gt object

Add table components, group rows together, add spanner labels, footnotes, format cells, add styles...

Use **gt**'s functions to build. Preview in **RStudio**.

③

gt table

Output the table to **HTML**, save an image. **RTF** and **LaTeX** output is possible as well.

Use tables in **Shiny** apps, reports, packages, etc.

# Categorizing the Useful Features of a Table

The Cars of gtcars							
These are some fine automobiles							
Performance							
	Year	Trim	Transmission	MPG	HP	Torque	MSRP <sup>1</sup>
Germany							
BMW i8	2016	Mega World Coupe	6 Speed Automatic/Manual	28c 29h <sup>2</sup>	357 @5800rpm	420 @3700rpm	\$140,700
Mercedes-Benz AMG GT	2016	S Coupe	7 Speed Automatic	16c 22h	503 @6250rpm	479 @1750rpm	\$129,900
Italy							
Ferrari LaFerrari	2015	Base Coupe	7 Speed Automatic	12c 16h	949 @9000rpm <sup>3</sup>	664 @6750rpm	\$1,416,362
Lamborghini Aventador	2015	LP 700-4 Coupe	7 Speed Automatic	11c 18h	700 @8250rpm	507 @5500rpm	\$397,500
United States							
Dodge Viper	2017	GT Coupe	6 Speed Manual	12c 19h	645 @5000rpm	600 @5000rpm	\$95,895
Ford GT	2017	Base Coupe	7 Speed Automatic	11c 18h	647 @6250rpm	550 @5900rpm	\$447,000
Japan							
Acura NSX	2017	Base Coupe	9 Speed Automatic	21c 22h	573 @6500rpm	476 @2000rpm	\$156,000
Nissan GT-R	2016	Premium Coupe	6 Speed Automatic	16c 22h	545 @6400rpm	436 @3200rpm	\$101,770

<sup>1</sup> All prices in U.S. dollars (USD).

<sup>2</sup> Best gas mileage (city) of all the gtcars.

<sup>3</sup> The highest horsepower of all the gtcars.

Source: Various pages within the Edmonds website.

# Categorizing the Useful Features of a Table

table header  
with a title  
and a subtitle

The Cars of gtcars							
These are some fine automobiles							
	Year	Trim	Transmission	Performance			MSRP <sup>1</sup>
Germany							
BMW i8	2016	Mega World Coupe	6 Speed Automatic/Manual	28c 29h <sup>2</sup>	357 @5800rpm	420 @3700rpm	\$140,700
Mercedes-Benz AMG GT	2016	S Coupe	7 Speed Automatic	16c 22h	503 @6250rpm	479 @1750rpm	\$129,900
Italy							
Ferrari LaFerrari	2015	Base Coupe	7 Speed Automatic	12c 16h	949 @9000rpm <sup>3</sup>	664 @6750rpm	\$1,416,362
Lamborghini Aventador	2015	LP 700-4 Coupe	7 Speed Automatic	11c 18h	700 @8250rpm	507 @5500rpm	\$397,500
United States							
Dodge Viper	2017	GT Coupe	6 Speed Manual	12c 19h	645 @5000rpm	600 @5000rpm	\$95,895
Ford GT	2017	Base Coupe	7 Speed Automatic	11c 18h	647 @6250rpm	550 @5900rpm	\$447,000
Japan							
Acura NSX	2017	Base Coupe	9 Speed Automatic	21c 22h	573 @6500rpm	476 @2000rpm	\$156,000
Nissan GT-R	2016	Premium Coupe	6 Speed Automatic	16c 22h	545 @6400rpm	436 @3200rpm	\$101,770

<sup>1</sup> All prices in U.S. dollars (USD).

<sup>2</sup> Best gas mileage (city) of all the gtcars.

<sup>3</sup> The highest horsepower of all the gtcars.

# Categorizing the Useful Features of a Table

table header  
with a title  
and a subtitle

## The Cars of gtcars

These are some fine automobiles

row labels  
along with  
row grouping

	Year	Trim	Transmission	MPG	HP	Torque	MSRP <sup>1</sup>
Germany							
BMW i8	2016	Mega World Coupe	6 Speed Automatic/Manual	28c 29h <sup>2</sup>	357 @5800rpm	420 @3700rpm	\$140,700
Mercedes-Benz AMG GT	2016	S Coupe	7 Speed Automatic	16c 22h	503 @6250rpm	479 @1750rpm	\$129,900
Italy							
Ferrari LaFerrari	2015	Base Coupe	7 Speed Automatic	12c 16h	949 @9000rpm <sup>3</sup>	664 @6750rpm	\$1,416,362
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United States							
Dodge Viper	2017	GT Coupe	6 Speed Manual	12c 19h	645 @5000rpm	600 @5000rpm	\$95,895
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Japan							
Acura NSX	2017	Base Coupe	9 Speed Automatic	21c 22h	573 @6500rpm	476 @2000rpm	\$156,000
Nissan GT-R	2016	Premium Coupe	6 Speed Automatic	16c 22h	545 @6400rpm	436 @3200rpm	\$101,770

<sup>1</sup> All prices in U.S. dollars (USD).

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# Categorizing the Useful Features of a Table

table header  
with a title  
and a subtitle

The Cars of **gtcars**  
These are some fine automobiles

row labels  
along with  
row grouping

Performance							
	Year	Trim	Transmission	MPG	HP	Torque	MSRP <sup>1</sup>
Germany							
BMW i8	2016	Mega World Coupe	6 Speed Automatic/Manual	28c 29h <sup>2</sup>	357 @5800rpm	420 @3700rpm	\$140,700
Mercedes-Benz AMG GT	2016	S Coupe	7 Speed Automatic	16c 22h	503 @6250rpm	479 @1750rpm	\$129,900
Italy							
Ferrari LaFerrari	2015	Base Coupe	7 Speed Automatic	12c 16h	949 @9000rpm <sup>3</sup>	664 @6750rpm	\$1,416,362
Lamborghini Aventador	2015	LP 700-4 Coupe	7 Speed Automatic	11c 18h	700 @8250rpm	507 @5500rpm	\$397,500
United States							
Dodge Viper	2017	GT Coupe	6 Speed Manual	12c 19h	645 @5000rpm	600 @5000rpm	\$95,895
Ford GT	2017	Base Coupe	7 Speed Automatic	11c 18h	647 @6250rpm	550 @5900rpm	\$447,000
Japan							
Acura NSX	2017	Base Coupe	9 Speed Automatic	21c 22h	573 @6500rpm	476 @2000rpm	\$156,000
Nissan GT-R	2016	Premium Coupe	6 Speed Automatic	16c 22h	545 @6400rpm	436 @3200rpm	\$101,770

column labels  
along with  
column spanners

<sup>1</sup> All prices in U.S. dollars (USD).

<sup>2</sup> Best gas mileage (city) of all the **gtcars**.

<sup>3</sup> The highest horsepower of all the **gtcars**.

# Categorizing the Useful Features of a Table

table header  
with a title  
and a subtitle

row labels  
along with  
row grouping

The Cars of gtcars							
These are some fine automobiles							
Germany	Year	Trim	Transmission	MPG	HP	Torque	MSRP <sup>1</sup>
	2016	Mega World Coupe	6 Speed Automatic/Manual	28c 29h <sup>2</sup>	357 @5800rpm	420 @3700rpm	\$140,700
	2016	S Coupe	7 Speed Automatic	16c 22h	503 @6250rpm	479 @1750rpm	\$129,900
	Italy						
	2015	Base Coupe	7 Speed Automatic	12c 16h	949 @9000rpm <sup>3</sup>	664 @6750rpm	\$1,416,362
	2015	LP 700-4 Coupe	7 Speed Automatic	11c 18h	700 @8250rpm	507 @5500rpm	\$397,500
	United States						
	2017	GT Coupe	6 Speed Manual	12c 19h	645 @5000rpm	600 @5000rpm	\$95,895
	2017	Base Coupe	7 Speed Automatic	11c 18h	647 @6250rpm	550 @5900rpm	\$447,000
	Japan						
	2017	Base Coupe	9 Speed Automatic	21c 22h	573 @6500rpm	476 @2000rpm	\$156,000
	2016	Premium Coupe	6 Speed Automatic	16c 22h	545 @6400rpm	436 @3200rpm	\$101,770

<sup>1</sup> All prices in U.S. dollars (USD).

<sup>2</sup> Best gas mileage (city) of all the gtcars.

<sup>3</sup> The highest horsepower of all the gtcars.

column labels  
along with  
column spanners

data formatting  
need to transform raw  
data for presentation

# Categorizing the Useful Features of a Table

table header  
with a title  
and a subtitle

row labels  
along with  
row grouping

The Cars of gtcars							
These are some fine automobiles							
Germany	Year	Trim	Transmission	MPG	HP	Torque	MSRP <sup>1</sup>
	2016	Mega World Coupe	6 Speed Automatic/Manual	28c 29h <sup>2</sup>	357 @5800rpm	420 @3700rpm	\$140,700
	2016	S Coupe	7 Speed Automatic	16c 22h	503 @6250rpm	479 @1750rpm	\$129,900
	Italy						
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	2017	GT Coupe	6 Speed Manual	12c 19h	645 @5000rpm	600 @5000rpm	\$95,895
	2017	Base Coupe	7 Speed Automatic	11c 18h	647 @6250rpm	550 @5900rpm	\$447,000
	Japan						
	2017	Base Coupe	9 Speed Automatic	21c 22h	573 @6500rpm	476 @2000rpm	\$156,000
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<sup>1</sup> All prices in U.S. dollars (USD).

<sup>2</sup> Best gas mileage (city) of all the gtcars.

<sup>3</sup> The highest horsepower of all the gtcars.

column labels  
along with  
column spanners

data formatting  
need to transform raw  
data for presentation

footnotes  
are in the right order

# Categorizing the Useful Features of a Table

table header  
with a title  
and a subtitle

The Cars of gtcars  
These are some fine automobiles

row labels  
along with  
row grouping

	Year	Trim	Transmission	MPG	HP	Torque	MSRP <sup>1</sup>
Germany							
BMW i8	2016	Mega World Coupe	6 Speed Automatic/Manual	28c 29h <sup>2</sup>	357 @5800rpm	420 @3700rpm	\$140,700
Mercedes-Benz AMG GT	2016	S Coupe	7 Speed Automatic	16c 22h	503 @6250rpm	479 @1750rpm	\$129,900
Italy							
Ferrari LaFerrari	2015	Base Coupe	7 Speed Automatic	12c 16h	949 @9000rpm <sup>3</sup>	664 @6750rpm	\$1,416,362
Lamborghini Aventador	2015	LP 700-4 Coupe	7 Speed Automatic	11c 18h	700 @8250rpm	507 @5500rpm	\$397,500
United States							
Dodge Viper	2017	GT Coupe	6 Speed Manual	12c 19h	645 @5000rpm	600 @5000rpm	\$95,895
Ford GT	2017	Base Coupe	7 Speed Automatic	11c 18h	647 @6250rpm	550 @5900rpm	\$447,000
Japan							
Acura NSX	2017	Base Coupe	9 Speed Automatic	21c 22h	573 @6500rpm	476 @2000rpm	\$156,000
Nissan GT-R	2016	Premium Coupe	6 Speed Automatic	16c 22h	545 @6400rpm	436 @3200rpm	\$101,770

column labels  
along with  
column spanners

data formatting  
need to transform raw  
data for presentation

a source note

<sup>1</sup> All prices in U.S. dollars (USD).

<sup>2</sup> Best gas mileage (city) of all the gtcars.

<sup>3</sup> The highest horsepower of all the gtcars.

Source: Various pages within the Edmonds website.

footnotes  
are in the right order

# Categorizing the Useful Features of a Table

We always want the ordering of footnotes to be correct.

This sort of thing should never have to be done manually.

The Cars of gtcars							
These are some fine automobiles							
	Year	Trim	Transmission	Performance			MSRP <sup>1</sup>
Germany							
BMW i8	2016	Mega World Coupe	6 Speed Automatic/Manual	28c 29h <sup>2</sup>	357 @5800rpm	420 @3700rpm	\$140,700
Mercedes-Benz AMG GT	2016	S Coupe	7 Speed Automatic	16c 22h	503 @6250rpm	479 @1750rpm	\$129,900
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Ferrari LaFerrari	2015	Base Coupe	7 Speed Automatic	12c 16h	949 @9000rpm <sup>3</sup>	664 @6750rpm	\$1,416,362
Lamborghini Aventador	2015	LP 700-4 Coupe	7 Speed Automatic	11c 18h	700 @8250rpm	507 @5500rpm	\$397,500
United States							
Dodge Viper	2017	GT Coupe	6 Speed Manual	12c 19h	645 @5000rpm	600 @5000rpm	\$95,895
Ford GT	2017	Base Coupe	7 Speed Automatic	11c 18h	647 @6250rpm	550 @5900rpm	\$447,000
Japan							
Acura NSX	2017	Base Coupe	9 Speed Automatic	21c 22h	573 @6500rpm	476 @2000rpm	\$156,000
Nissan GT-R	2016	Premium Coupe	6 Speed Automatic	16c 22h	545 @6400rpm	436 @3200rpm	\$101,770

<sup>1</sup>All prices in U.S. dollars (USD).

<sup>2</sup>Best gas mileage (city) of all the gtcars.

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Source: Various pages within the Edmonds website.

1  
2  
3

1

2

3

footnotes  
are in the right order

# Categorizing the Useful Features of a Table

To do this right, **gt**  
will **index** the  
locations *left-to-  
right then  
top-to-bottom.*

The Cars of <b>gtcars</b> <sup>1</sup>								
These are some fine automobiles <sup>2</sup>								
<sup>3</sup>	Year <sup>5</sup>	Trim <sup>6</sup>	Transmission <sup>7</sup>	Performance <sup>4</sup>			MSRP <sup>11</sup>	
				MPG <sup>8</sup>	HP <sup>9</sup>	Torque <sup>10</sup>		
Germany <sup>13</sup>								
BMW i8 <sup>14</sup>	2016 <sup>15</sup>	Mega World Coupe <sup>16</sup>	6 Speed Automatic/Manual <sup>17</sup>	28c <sup>18</sup> 29h <sup>2</sup> <sup>19</sup>	357 <sup>19</sup> @5800rpm	420 <sup>20</sup> @3700rpm	\$140,700 <sup>21</sup>	
Mercedes-Benz AMG GT <sup>22</sup>	2016 <sup>23</sup>	S Coupe <sup>24</sup>	7 Speed Automatic <sup>25</sup>	16c <sup>26</sup> 22h <sup>27</sup>	503 <sup>27</sup> @6250rpm	479 <sup>28</sup> @1750rpm	\$129,900 <sup>29</sup>	
Italy <sup>30</sup>								
Ferrari LaFerrari <sup>31</sup>	2015 <sup>32</sup>	Base Coupe <sup>33</sup>	7 Speed Automatic <sup>34</sup>	12c <sup>35</sup> 16h <sup>36</sup>	949 <sup>36</sup> @9000rpm <sup>3</sup>	664 <sup>37</sup> @6750rpm	\$1,416,362 <sup>38</sup>	
Lamborghini Aventador <sup>39</sup>	2015 <sup>40</sup>	LP 700-4 Coupe <sup>41</sup>	7 Speed Automatic <sup>42</sup>	11c <sup>43</sup> 18h <sup>44</sup>	700 <sup>44</sup> @8250rpm	507 <sup>45</sup> @5500rpm	\$397,500 <sup>46</sup>	
United States <sup>47</sup>								
Dodge Viper <sup>48</sup>	2017 <sup>49</sup>	GT Coupe <sup>50</sup>	6 Speed Manual <sup>51</sup>	12c <sup>52</sup> 19h <sup>53</sup>	645 <sup>53</sup> @5000rpm	600 <sup>54</sup> @5000rpm	\$95,895 <sup>55</sup>	
Ford GT <sup>56</sup>	2017 <sup>57</sup>	Base Coupe <sup>58</sup>	7 Speed Automatic <sup>59</sup>	11c <sup>60</sup> 18h <sup>61</sup>	647 <sup>61</sup> @6250rpm	550 <sup>62</sup> @5900rpm	\$447,000 <sup>63</sup>	
Japan <sup>64</sup>								
Acura NSX <sup>65</sup>	2017 <sup>66</sup>	Base Coupe <sup>67</sup>	9 Speed Automatic <sup>68</sup>	21c <sup>69</sup> 22h <sup>70</sup>	573 <sup>70</sup> @6500rpm	476 <sup>71</sup> @2000rpm	\$156,000 <sup>72</sup>	
Nissan GT-R <sup>73</sup>	2016 <sup>74</sup>	Premium Coupe <sup>75</sup>	6 Speed Automatic <sup>76</sup>	16c <sup>77</sup> 22h <sup>78</sup>	545 <sup>78</sup> @6400rpm	436 <sup>79</sup> @3200rpm	\$101,770 <sup>80</sup>	

<sup>1</sup> All prices in U.S. dollars (USD).

<sup>2</sup> Best gas mileage (city) of all the **gtcars**.

<sup>3</sup> The highest horsepower of all the **gtcars**.

Source: Various pages within the Edmonds website.

# Categorizing the Useful Features of a Table

All of this ensures  
that footnotes  
appear as you  
might expect.

The Cars of gtcars							
These are some fine automobiles							
	Year	Trim	Transmission	Performance			
Germany							
BMW i8	2016	Mega World Coupe	6 Speed Automatic/Manual	28c 29h <sup>2</sup> @5800rpm	357 @3700rpm	420	\$140,700
Mercedes-Benz AMG GT	2016	S Coupe	7 Speed Automatic	16c 22h @6250rpm	503 @1750rpm	479	\$129,900
Italy							
Ferrari LaFerrari	2015	Base Coupe	7 Speed Automatic	12c 16h @9000rpm <sup>3</sup>	949 @8250rpm	664 @5500rpm	\$1,416,362
Lamborghini Aventador	2015	LP 700-4 Coupe	7 Speed Automatic	11c 18h @8250rpm	700 @5500rpm	507	\$397,500
United States							
Dodge Viper	2017	GT Coupe	6 Speed Manual	12c 19h @5000rpm	645 @5000rpm	600 @5000rpm	\$95,895
Ford GT	2017	Base Coupe	7 Speed Automatic	11c 18h @6250rpm	647 @5900rpm	550 @5900rpm	\$447,000
Japan							
Acura NSX	2017	Base Coupe	9 Speed Automatic	21c 22h @6500rpm	573 @2000rpm	476	\$156,000
Nissan GT-R	2016	Premium Coupe	6 Speed Automatic	16c 22h @6400rpm	545 @3200rpm	436	\$101,770

<sup>1</sup> All prices in U.S. dollars (USD).  
<sup>2</sup> Best gas mileage (city) of all the gtcars.  
<sup>3</sup> The highest horsepower of all the gtcars.

Source: Various pages within the Edmonds website.

1

2

3

# Categorizing the Useful Features of a Table

The Cars of <b>gtcars</b>							
These are some fine automobiles							
Performance							
Year	Trim	Transmission	MPG	HP	Torque	MSRP <sup>1</sup>	
Germany							
BMW i8	2016 Mega World Coupe	6 Speed Automatic/Manual	28c 29h <sup>2</sup>	357 @5800rpm	420 @3700rpm	\$140,700	1
Mercedes-Benz AMG GT	2016 S Coupe	7 Speed Automatic	16c 22h	503 @6250rpm	479 @1750rpm	\$129,900	2
Italy							
Ferrari LaFerrari	2015 Base Coupe	7 Speed Automatic	12c 16h	949 @9000rpm <sup>3</sup>	664 @6750rpm	\$1,416,362	3
Lamborghini Aventador	2015 LP 700-4 Coupe	7 Speed Automatic	11c 18h	700 @8250rpm	507 @5500rpm	\$397,500	
United States							
Dodge Viper	2017 GT Coupe	6 Speed Manual	12c 19h	645 @5000rpm	600 @5000rpm	\$95,895	
Ford GT	2017 Base Coupe	7 Speed Automatic	11c 18h	647 @6250rpm	550 @5900rpm	\$447,000	
Japan							
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Nissan GT-R	2016 Premium Coupe	6 Speed Automatic	16c 22h	545 @6400rpm	436 @3200rpm	\$101,770	

<sup>1</sup>All prices in U.S. dollars (USD).  
<sup>2</sup>Best gas mileage (city) of all the **gtcars**.  
<sup>3</sup>The highest horsepower of all the **gtcars**.

Source: Various pages within the Edmonds website.

We can apply the same footnote to multiple locations.

Base coupe<sup>1</sup>

GT coupe<sup>1</sup>

<sup>1</sup>These coupes

**gt** will preserve the same footnote mark

Multiple footnotes can be applied to the same location.

Base coupe<sup>1,2,3</sup>

GT coupe<sup>1,4,5</sup>

<sup>1</sup>These coupes can h

<sup>2</sup>Base models tend to

<sup>3</sup>This is the only optic

<sup>4</sup>Although labeled as

<sup>5</sup>Final year in which th

**gt** can handle complex footnote marks in a logical manner

You don't have to use numerals as footnote marks.

some options: 1,2,3    a,b,c    \*,+,,+,¶

*The **gt** Package Formalizes the Parts of a Table  
and we can use as many or as few as we need*

# *The Structural Parts of a **gt** Table*

This is the most basic form of a **gt** table:

column label	column label	column label
cell	cell	cell

column labels

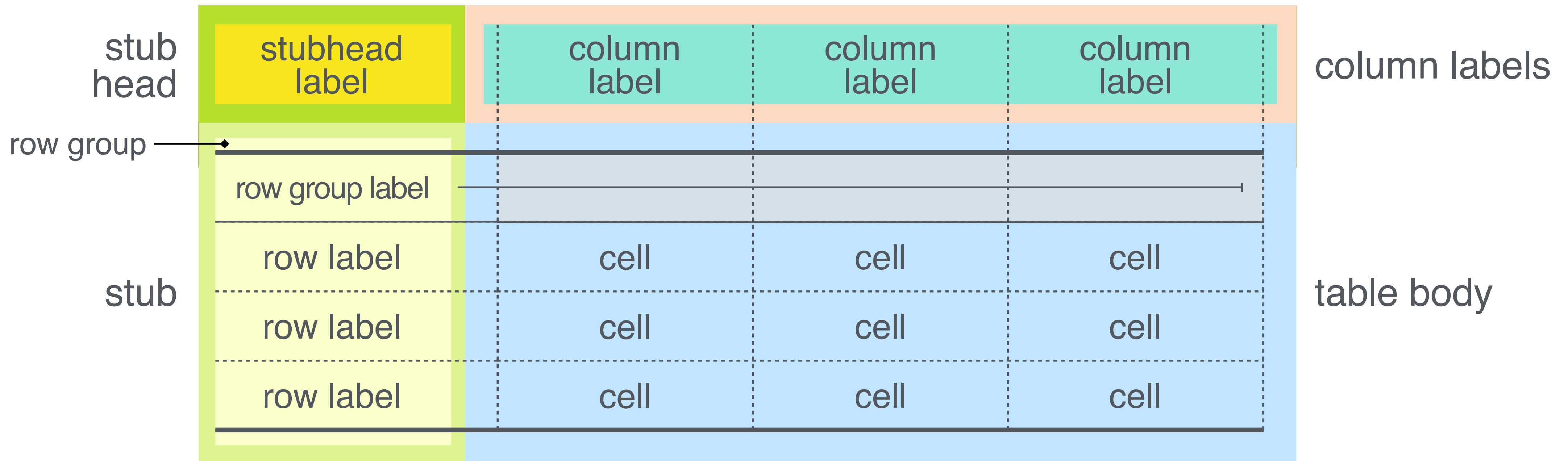
table body

# *The Structural Parts of a **gt** Table*

stub head		column labels		
stub	stubhead label	column label	column label	column label
	row label	cell	cell	cell
	row label	cell	cell	cell
	row label	cell	cell	cell
	row label	cell	cell	cell

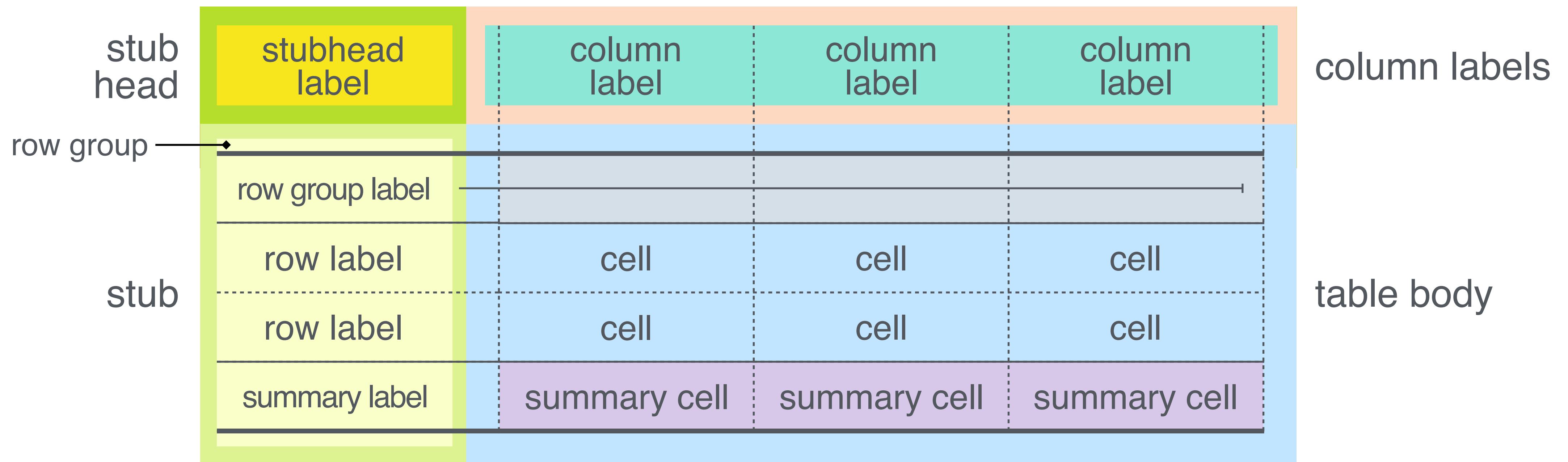
A table stub is not always needed but it can be useful.

# *The Structural Parts of a **gt** Table*



A table stub is not always needed but it can be useful.  
Rows can be grouped, and they can have labels.

# The Structural Parts of a **gt** Table

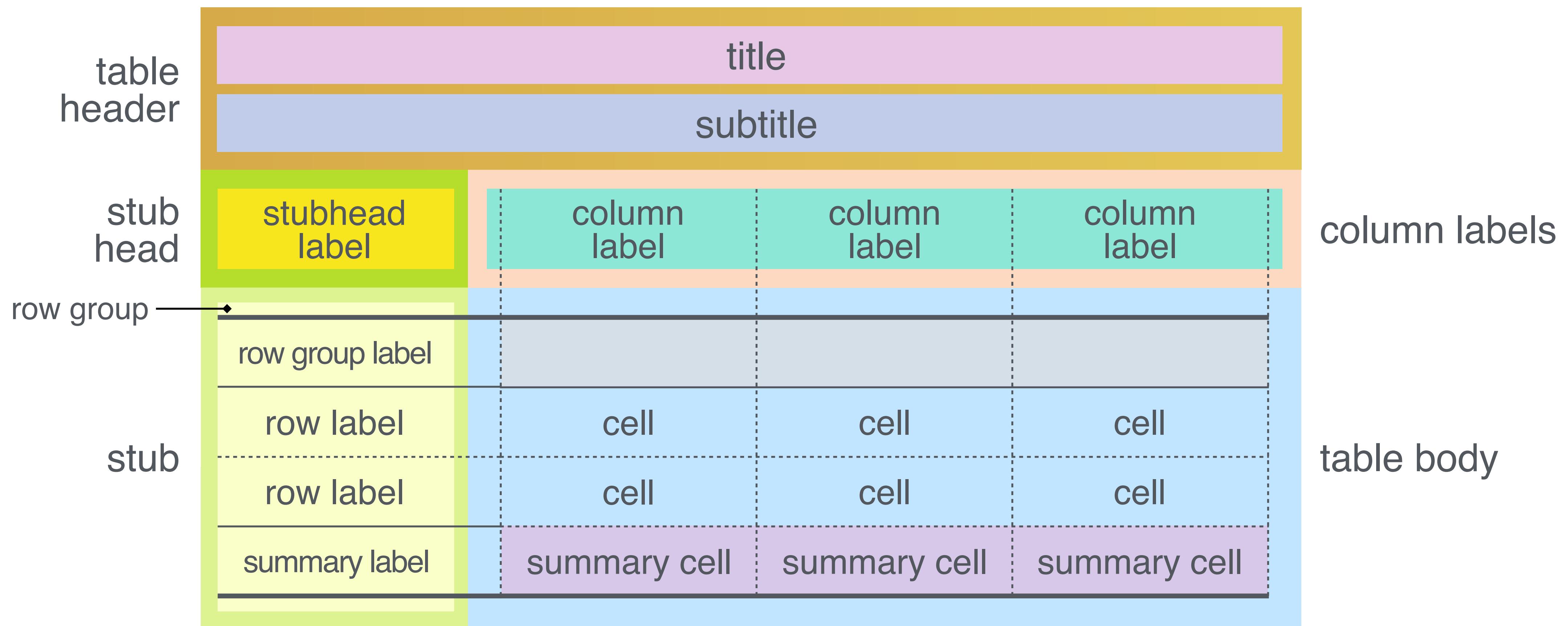


A table stub is not always needed but it can be useful.

Rows can be grouped, and they can have labels.

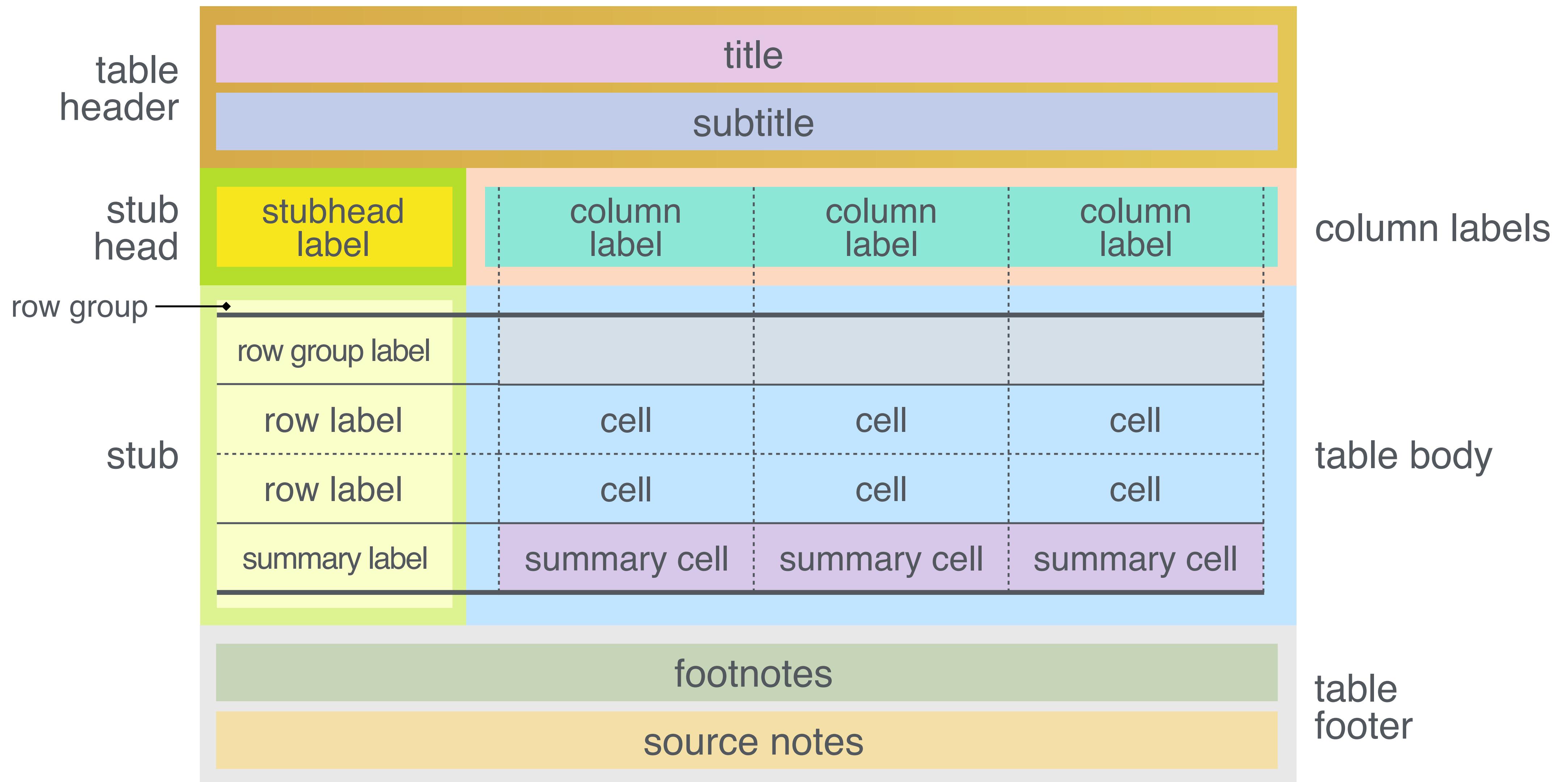
Summary rows can be added to groups (or, we can have a *grand summary*).

# *The Structural Parts of a **gt** Table*



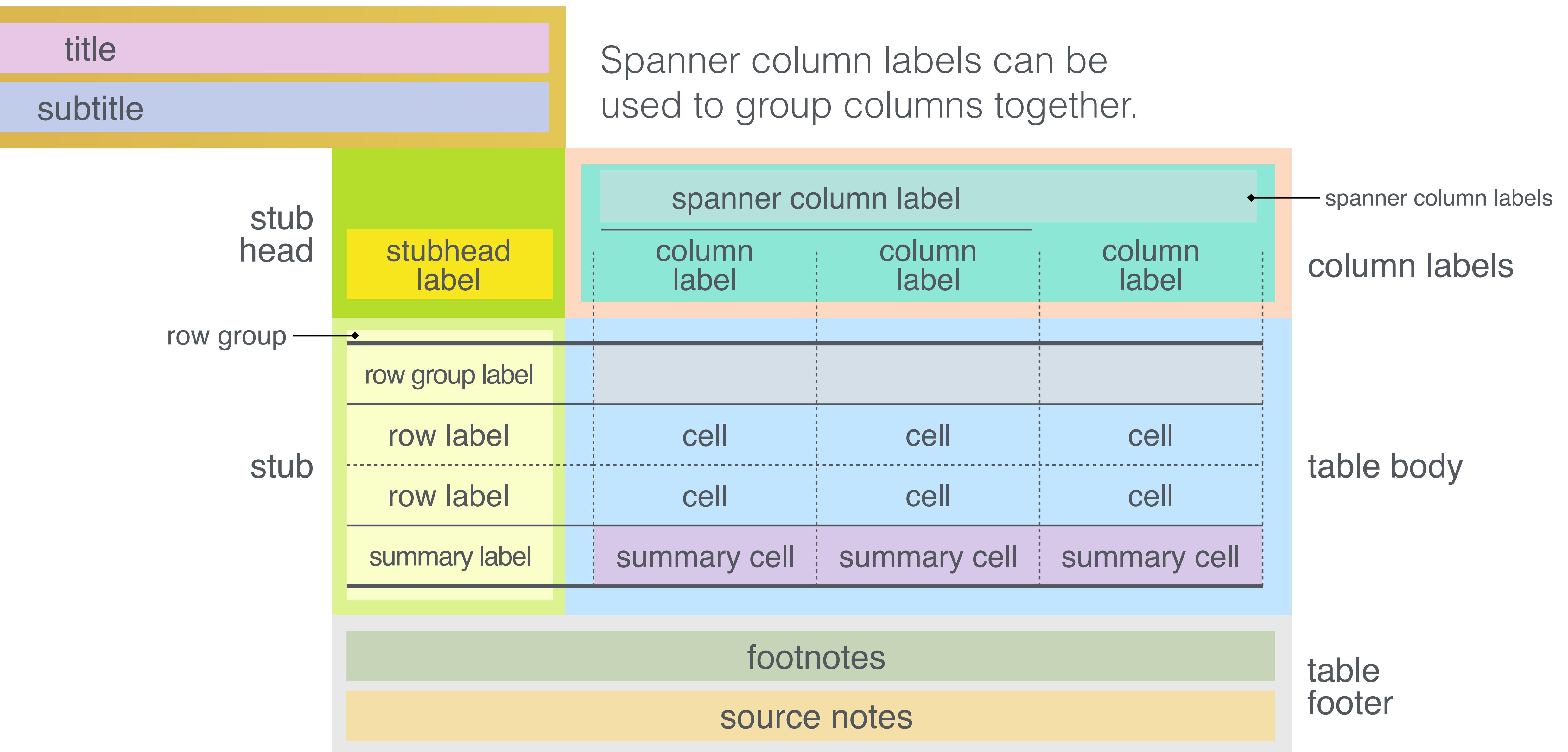
A table header is a great place to add a title and a subtitle.

# *The Structural Parts of a **gt** Table*

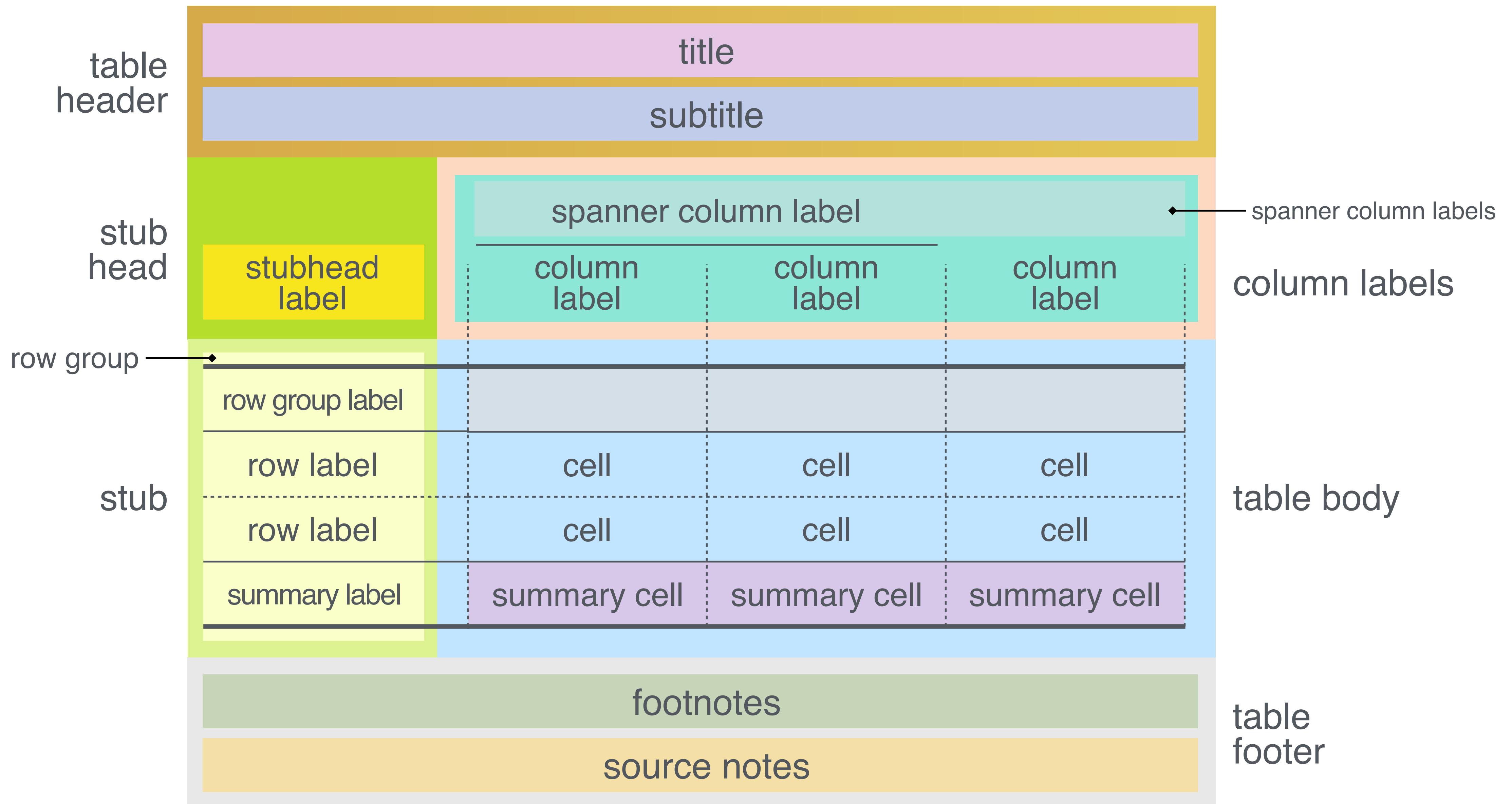


Footnotes and source notes serve as useful annotations.

# The Structural Parts of a *gt* Table



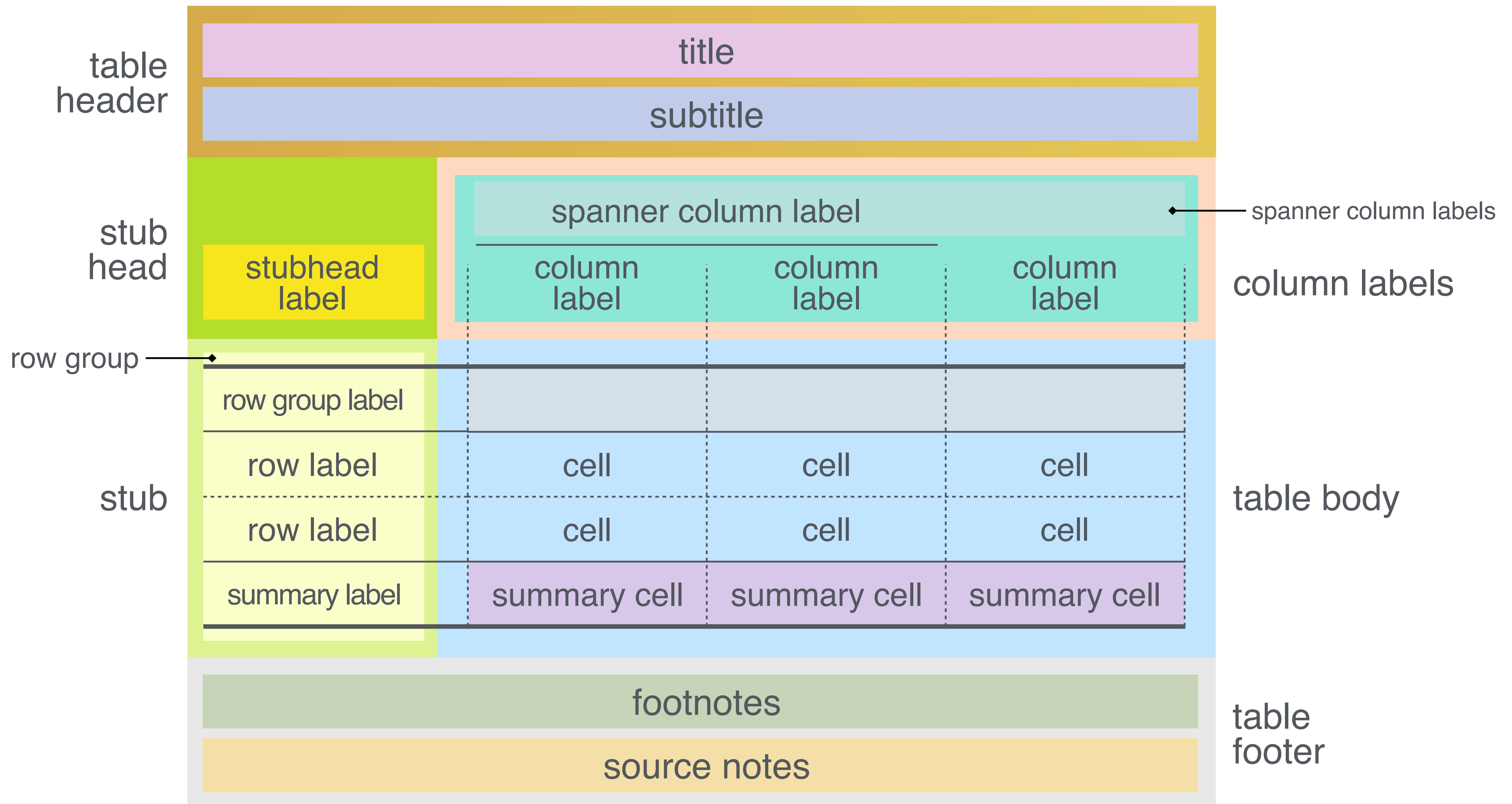
# The Structural Parts of a *gt* Table



# *The Structural Parts of a **gt** Table*

	stub	table body		
GROUP 'A'	row group label			
	row label	cell	cell	cell
	row label	cell	cell	cell
	summary label	summary cell	summary cell	summary cell
	row group label			
	row label	cell	cell	cell
	row label	cell	cell	cell
	summary label	summary cell	summary cell	summary cell
	grand summary label	grand summary cell	grand summary cell	grand summary cell
	grand summary label	grand summary cell	grand summary cell	grand summary cell
GRAND SUMMARY ROWS				

# The Structural Parts of a ***gt*** Table



*Let's Look at Some of **gt**'s Functions*



countrypops



sza



gtcars



sp500

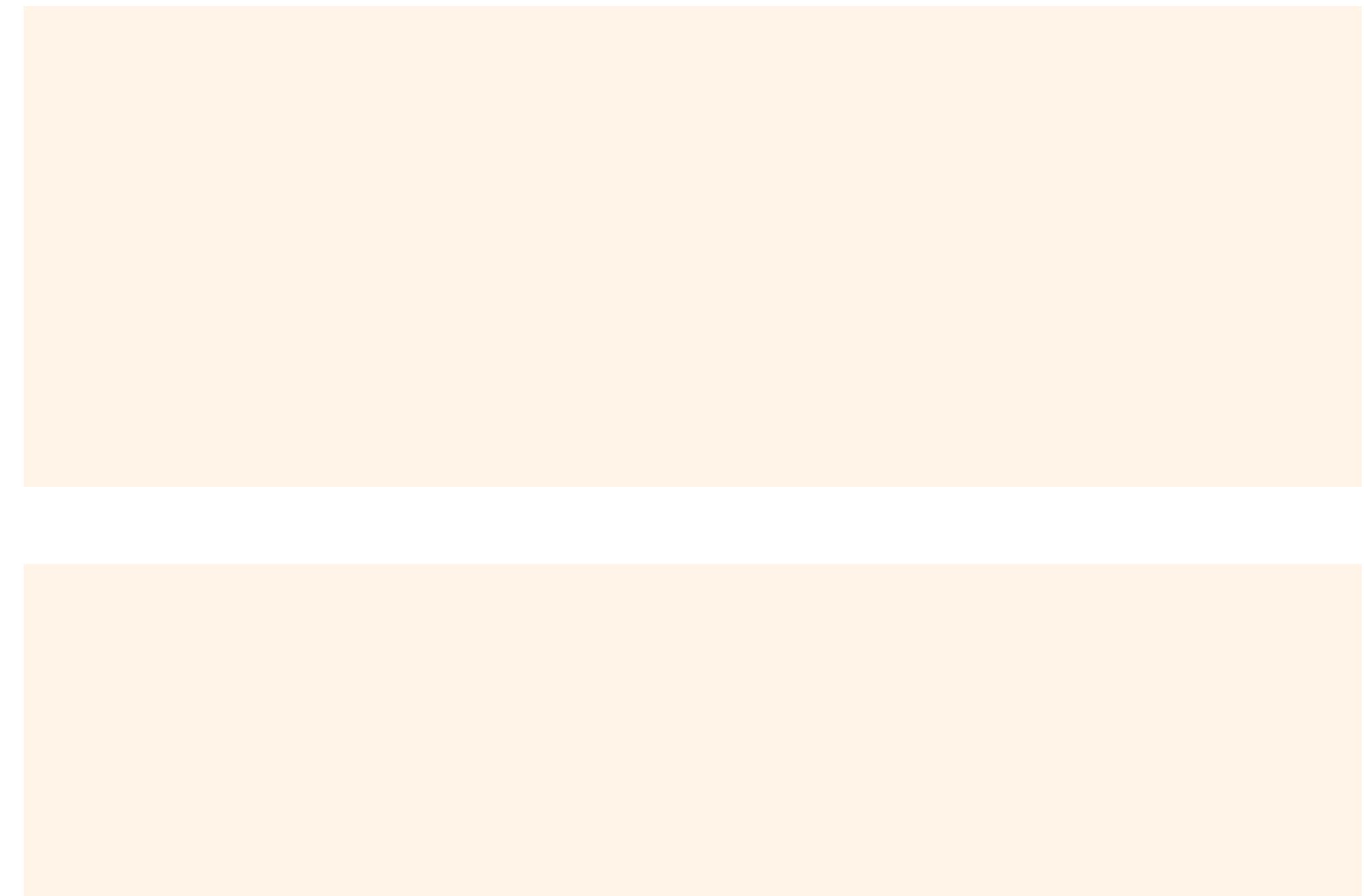


pizzaplace



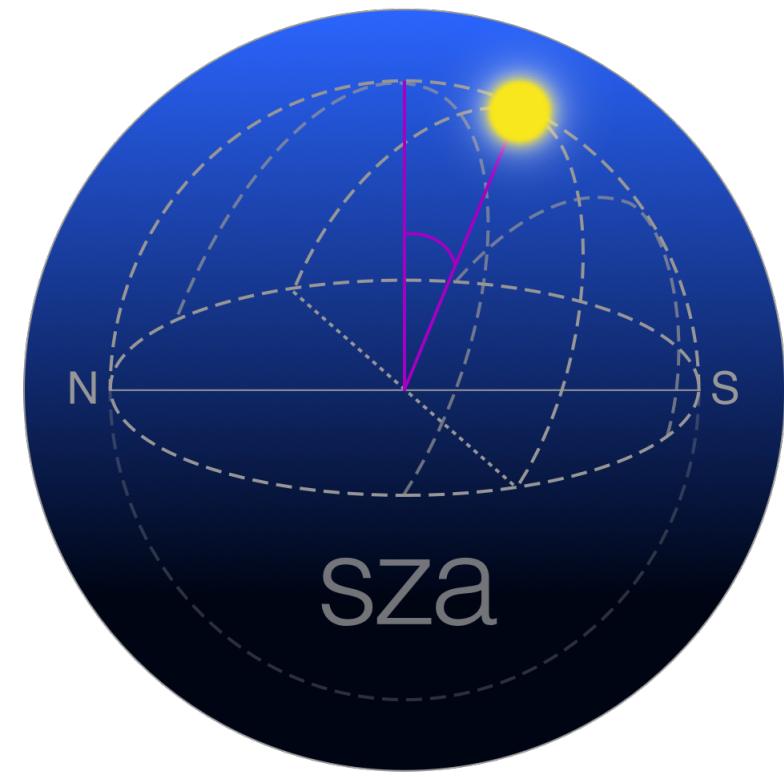
exibble

The **gt** package comes with six example datasets.





countrypops  
**12,470 × 5**



sza  
**816 × 4**



gtcars  
**47 × 15**



sp500  
**16,607 × 7**



pizzaplace  
**49,574 × 7**

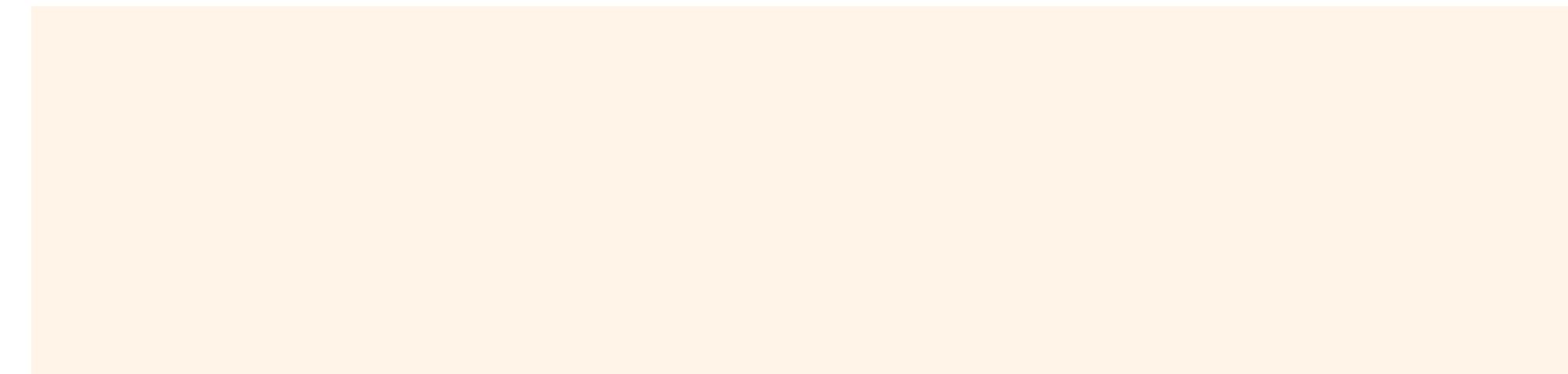


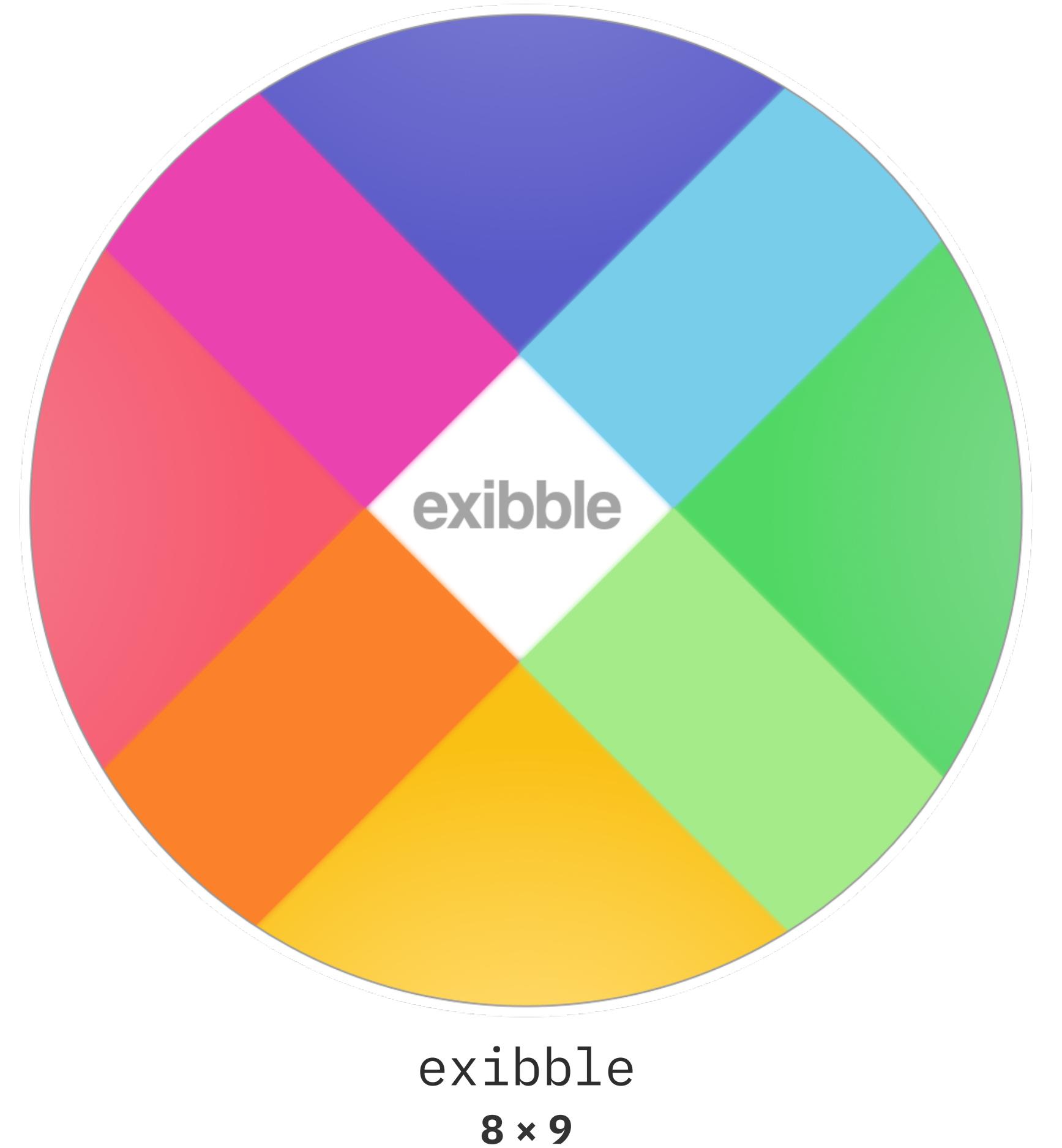
exibble  
**8 × 9**

The **gt** package comes with six example datasets.

They are of various sizes and subject matter. There are some nice examples available at:

[gt.rstudio.com/articles/gt-datasets](http://gt.rstudio.com/articles/gt-datasets)





The **gt** package comes with  
six example datasets.

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subject matter. There are some  
nice examples available at:

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---

All of the following examples will  
use **exibble**: a dataset that's great  
for small examples.

# The First Function You Need to Know

## ■ Create Table

### gt()

---

#### CODE

```
exibble %>% gt()
```

---

#### TABLE

num	char	fctr	date	time	datetime	currency	row	group
1.111e-01	apricot	one	2015-01-15	13:35	2018-01-01 02:22	49.950	row_1	grp_a
2.222e+00	banana	two	2015-02-15	14:40	2018-02-02 14:33	17.950	row_2	grp_a
3.333e+01	coconut	three	2015-03-15	15:45	2018-03-03 03:44	1.390	row_3	grp_a
4.444e+02	durian	four	2015-04-15	16:50	2018-04-04 15:55	65100.000	row_4	grp_a
5.550e+03	NA	five	2015-05-15	17:55	2018-05-05 04:00	1325.810	row_5	grp_b
NA	fig	six	2015-06-15	NA	2018-06-06 16:11	13.255	row_6	grp_b
7.770e+05	grapefruit	seven	NA	19:10	2018-07-07 05:22	NA	row_7	grp_b
8.880e+06	honeydew	eight	2015-08-15	20:20	NA	0.440	row_8	grp_b

# Work with Table Components, Add Style

## ■ Create or Modify Parts

[tab\\_header\(\)](#)   [tab\\_spinner\(\)](#)   [tab\\_spinner\\_delim\(\)](#)   [tab\\_row\\_group\(\)](#)

---

### CODE

```
exibble %>% gt() %>% tab_header(md("**gt** is cool"))
```

---

### TABLE

gt is cool									
num	char	fctr	date	time	datetime	currency	row	group	
1.111e-01	apricot	one	2015-01-15	13:35	2018-01-01 02:22	49.950	row_1	grp_a	
2.222e+00	banana	two	2015-02-15	14:40	2018-02-02 14:33	17.950	row_2	grp_a	
3.333e+01	coconut	three	2015-03-15	15:45	2018-03-03 03:44	1.390	row_3	grp_a	
4.444e+02	durian	four	2015-04-15	16:50	2018-04-04 15:55	65100.000	row_4	grp_a	
5.550e+03	NA	five	2015-05-15	17:55	2018-05-05 04:00	1325.810	row_5	grp_b	
NA	fig	six	2015-06-15	NA	2018-06-06 16:11	13.255	row_6	grp_b	
7.770e+05	grapefruit	seven	NA	19:10	2018-07-07 05:22	NA	row_7	grp_b	
8.880e+06	honeydew	eight	2015-08-15	20:20	NA	0.440	row_8	grp_b	

# Work with Table Components, Add Style

## ■ Create or Modify Parts

tab\_source\_note()   tab\_style()   tab\_options()

---

### CODE

```
exibble %>% gt() %>% tab_header(md("**gt** is cool")) %>% tab_source_note("From gt.")
```

---

### TABLE

gt is cool								
num	char	fctr	date	time	datetime	currency	row	group
1.111e-01	apricot	one	2015-01-15	13:35	2018-01-01 02:22	49.950	row_1	grp_a
2.222e+00	banana	two	2015-02-15	14:40	2018-02-02 14:33	17.950	row_2	grp_a
3.333e+01	coconut	three	2015-03-15	15:45	2018-03-03 03:44	1.390	row_3	grp_a
4.444e+02	durian	four	2015-04-15	16:50	2018-04-04 15:55	65100.000	row_4	grp_a
5.550e+03	NA	five	2015-05-15	17:55	2018-05-05 04:00	1325.810	row_5	grp_b
NA	fig	six	2015-06-15	NA	2018-06-06 16:11	13.255	row_6	grp_b
7.770e+05	grapefruit	seven	NA	19:10	2018-07-07 05:22	NA	row_7	grp_b
8.880e+06	honeydew	eight	2015-08-15	20:20	NA	0.440	row_8	grp_b

From gt.

# Work with Table Components, Add Style

## ■ Create or Modify Parts

### tab\_options()

#### CODE

```
exibble %>% gt() %>% tab_header(md("**gt** is cool")) %>%  
  tab_options(table.width = pct(100))
```

#### TABLE

gt is cool								
num	char	fctr	date	time	datetime	currency	row	group
1.111e-01	apricot	one	2015-01-15	13:35	2018-01-01 02:22	49.950	row_1	grp_a
2.222e+00	banana	two	2015-02-15	14:40	2018-02-02 14:33	17.950	row_2	grp_a
3.333e+01	coconut	three	2015-03-15	15:45	2018-03-03 03:44	1.390	row_3	grp_a
4.444e+02	durian	four	2015-04-15	16:50	2018-04-04 15:55	65100.000	row_4	grp_a
5.550e+03	NA	five	2015-05-15	17:55	2018-05-05 04:00	1325.810	row_5	grp_b
NA	fig	six	2015-06-15	NA	2018-06-06 16:11	13.255	row_6	grp_b
7.770e+05	grapefruit	seven	NA	19:10	2018-07-07 05:22	NA	row_7	grp_b
8.880e+06	honeydew	eight	2015-08-15	20:20	NA	0.440	row_8	grp_b

# The Formatting Functions

## Format Data

fmt\_number()    fmt\_scientific()    fmt\_percent()    fmt\_currency()

### CODE

```
exibble %>% gt() %>% fmt_number(num, decimals = 2)
```

### TABLE

num	char	fctr	date	time	datetime	currency	row	group
0.11	apricot	one	2015-01-15	13:35	2018-01-01 02:22	49.950	row_1	grp_a
2.22	banana	two	2015-02-15	14:40	2018-02-02 14:33	17.950	row_2	grp_a
33.33	coconut	three	2015-03-15	15:45	2018-03-03 03:44	1.390	row_3	grp_a
444.40	durian	four	2015-04-15	16:50	2018-04-04 15:55	65100.000	row_4	grp_a
5,550.00	NA	five	2015-05-15	17:55	2018-05-05 04:00	1325.810	row_5	grp_b
NA	fig	six	2015-06-15	NA	2018-06-06 16:11	13.255	row_6	grp_b
777,000.00	grapefruit	seven	NA	19:10	2018-07-07 05:22	NA	row_7	grp_b
8,880,000.00	honeydew	eight	2015-08-15	20:20	NA	0.440	row_8	grp_b

# *The Formatting Functions*

## Format Data

`fmt_scientific()`   `fmt_percent()`   `fmt_currency()`   `fmt_date()`

### CODE

```
exibble %>% gt() %>% fmt_scientific(num)
```

### TABLE

num	char	fctr	date	time	datetime	currency	row	group
$1.11 \times 10^{-1}$	apricot	one	2015-01-15	13:35	2018-01-01 02:22	49.950	row_1	grp_a
2.22	banana	two	2015-02-15	14:40	2018-02-02 14:33	17.950	row_2	grp_a
$3.33 \times 10^1$	coconut	three	2015-03-15	15:45	2018-03-03 03:44	1.390	row_3	grp_a
$4.44 \times 10^2$	durian	four	2015-04-15	16:50	2018-04-04 15:55	65100.000	row_4	grp_a
$5.55 \times 10^3$	NA	five	2015-05-15	17:55	2018-05-05 04:00	1325.810	row_5	grp_b
NA	fig	six	2015-06-15	NA	2018-06-06 16:11	13.255	row_6	grp_b
$7.77 \times 10^5$	grapefruit	seven	NA	19:10	2018-07-07 05:22	NA	row_7	grp_b
$8.88 \times 10^6$	honeydew	eight	2015-08-15	20:20	NA	0.440	row_8	grp_b

# The Formatting Functions

## Format Data

`fmt_scientific()`   `fmt_percent()`   `fmt_currency()`   `fmt_date()`

### CODE

```
exibble %>% gt() %>% fmt_scientific(num, rows = num >= 10^3)
```

### TABLE

num	char	fctr	date	time	datetime	currency	row	group
0.1111	apricot	one	2015-01-15	13:35	2018-01-01 02:22	49.950	row_1	grp_a
2.2220	banana	two	2015-02-15	14:40	2018-02-02 14:33	17.950	row_2	grp_a
33.3300	coconut	three	2015-03-15	15:45	2018-03-03 03:44	1.390	row_3	grp_a
444.4000	durian	four	2015-04-15	16:50	2018-04-04 15:55	65100.000	row_4	grp_a
$5.55 \times 10^3$	NA	five	2015-05-15	17:55	2018-05-05 04:00	1325.810	row_5	grp_b
NA	fig	six	2015-06-15	NA	2018-06-06 16:11	13.255	row_6	grp_b
$7.77 \times 10^5$	grapefruit	seven	NA	19:10	2018-07-07 05:22	NA	row_7	grp_b
$8.88 \times 10^6$	honeydew	eight	2015-08-15	20:20	NA	0.440	row_8	grp_b

# The Formatting Functions

## Format Data

fmt\_currency()    fmt\_date()    fmt\_time()    fmt\_datetime()    fmt

### CODE

```
exibble %>% gt() %>% fmt_currency(currency, currency = "EUR")  
try info_currencies()
```

### TABLE

num	char	fctr	date	time	datetime	currency	row	group
1.111e-01	apricot	one	2015-01-15	13:35	2018-01-01 02:22	€49.95	row_1	grp_a
2.222e+00	banana	two	2015-02-15	14:40	2018-02-02 14:33	€17.95	row_2	grp_a
3.333e+01	coconut	three	2015-03-15	15:45	2018-03-03 03:44	€1.39	row_3	grp_a
4.444e+02	durian	four	2015-04-15	16:50	2018-04-04 15:55	€65,100.00	row_4	grp_a
5.550e+03	NA	five	2015-05-15	17:55	2018-05-05 04:00	€1,325.81	row_5	grp_b
NA	fig	six	2015-06-15	NA	2018-06-06 16:11	€13.26	row_6	grp_b
7.770e+05	grapefruit	seven	NA	19:10	2018-07-07 05:22	NA	row_7	grp_b
8.880e+06	honeydew	eight	2015-08-15	20:20	NA	€0.44	row_8	grp_b

# The Formatting Functions

## Format Data

fmt\_date()    fmt\_time()    fmt\_datetime()    fmt\_markdown()    fmt

### CODE

```
exibble %>% gt() %>% fmt_date(date, date_style = 2)
```

try info\_date\_style()

### TABLE

num	char	fctr	date	time	datetime	currency	row	group
1.111e-01	apricot	one	Thursday, January 15, 2015	13:35	2018-01-01 02:22	49.950	row_1	grp_a
2.222e+00	banana	two	Sunday, February 15, 2015	14:40	2018-02-02 14:33	17.950	row_2	grp_a
3.333e+01	coconut	three	Sunday, March 15, 2015	15:45	2018-03-03 03:44	1.390	row_3	grp_a
4.444e+02	durian	four	Wednesday, April 15, 2015	16:50	2018-04-04 15:55	65100.000	row_4	grp_a
5.550e+03	NA	five	Friday, May 15, 2015	17:55	2018-05-05 04:00	1325.810	row_5	grp_b
NA	fig	six	Monday, June 15, 2015	NA	2018-06-06 16:11	13.255	row_6	grp_b
7.770e+05	grapefruit	seven	NA	19:10	2018-07-07 05:22	NA	row_7	grp_b
8.880e+06	honeydew	eight	Saturday, August 15, 2015	20:20	NA	0.440	row_8	grp_b

# *The Formatting Functions*

## Format Data

fmt\_missing()    fmt()    text\_transform()    data\_color()

---

### CODE

```
exibble %>% gt() %>% fmt_missing(columns = everything())
```

---

### TABLE

num	char	fctr	date	time	datetime	currency	row	group
1.111e-01	apricot	one	2015-01-15	13:35	2018-01-01 02:22	49.950	row_1	grp_a
2.222e+00	banana	two	2015-02-15	14:40	2018-02-02 14:33	17.950	row_2	grp_a
3.333e+01	coconut	three	2015-03-15	15:45	2018-03-03 03:44	1.390	row_3	grp_a
4.444e+02	durian	four	2015-04-15	16:50	2018-04-04 15:55	65100.000	row_4	grp_a
5.550e+03	—	five	2015-05-15	17:55	2018-05-05 04:00	1325.810	row_5	grp_b
—	fig	six	2015-06-15	—	2018-06-06 16:11	13.255	row_6	grp_b
7.770e+05	grapefruit	seven	—	19:10	2018-07-07 05:22	—	row_7	grp_b
8.880e+06	honeydew	eight	2015-08-15	20:20	—	0.440	row_8	grp_b

# How to Do Modifications on Entire Columns

## ■ Modify Columns

---

cols\_align()    cols\_width()    cols\_label()    cols\_move\_to\_start

---

### CODE

```
exibble %>% gt() %>% cols_align(c(char, fctr), align = "right")
```

---

### TABLE

num	char	fctr	date	time	datetime	currency	row	group
1.111e-01	apricot	one	2015-01-15	13:35	2018-01-01 02:22	49.950	row_1	grp_a
2.222e+00	banana	two	2015-02-15	14:40	2018-02-02 14:33	17.950	row_2	grp_a
3.333e+01	coconut	three	2015-03-15	15:45	2018-03-03 03:44	1.390	row_3	grp_a
4.444e+02	durian	four	2015-04-15	16:50	2018-04-04 15:55	65100.000	row_4	grp_a
5.550e+03	NA	five	2015-05-15	17:55	2018-05-05 04:00	1325.810	row_5	grp_b
NA	fig	six	2015-06-15	NA	2018-06-06 16:11	13.255	row_6	grp_b
7.770e+05	grapefruit	seven	NA	19:10	2018-07-07 05:22	NA	row_7	grp_b
8.880e+06	honeydew	eight	2015-08-15	20:20	NA	0.440	row_8	grp_b

# How to Do Modifications on Entire Columns

## ■ Modify Columns

---

[cols\\_hide\(\)](#)   [cols\\_merge\\_range\(\)](#)   [cols\\_merge\\_uncert\(\)](#)   [cols\\_m](#)

---

### CODE

```
exibble %>% gt() %>% cols_hide(matches("date|time"))
```

---

### TABLE

num	char	fctr	currency	row	group
1.111e-01	apricot	one	49.950	row_1	grp_a
2.222e+00	banana	two	17.950	row_2	grp_a
3.333e+01	coconut	three	1.390	row_3	grp_a
4.444e+02	durian	four	65100.000	row_4	grp_a
5.550e+03	NA	five	1325.810	row_5	grp_b
NA	fig	six	13.255	row_6	grp_b
7.770e+05	grapefruit	seven	NA	row_7	grp_b
8.880e+06	honeydew	eight	0.440	row_8	grp_b

# How to Do Modifications on Entire Columns

## ■ Modify Columns

### cols\_merge()

#### CODE

```
exibble %>% gt() %>% cols_merge(columns = c(char, fctr), pattern = "{1} ({2})")
```

#### TABLE

num	char	date	time	datetime	currency	row	group
1.111e-01	apricot (one)	2015-01-15	13:35	2018-01-01 02:22	49.950	row_1	grp_a
2.222e+00	banana (two)	2015-02-15	14:40	2018-02-02 14:33	17.950	row_2	grp_a
3.333e+01	coconut (three)	2015-03-15	15:45	2018-03-03 03:44	1.390	row_3	grp_a
4.444e+02	durian (four)	2015-04-15	16:50	2018-04-04 15:55	65100.000	row_4	grp_a
5.550e+03	NA (five)	2015-05-15	17:55	2018-05-05 04:00	1325.810	row_5	grp_b
NA	fig (six)	2015-06-15	NA	2018-06-06 16:11	13.255	row_6	grp_b
7.770e+05	grapefruit (seven)	NA	19:10	2018-07-07 05:22	NA	row_7	grp_b
8.880e+06	honeydew (eight)	2015-08-15	20:20	NA	0.440	row_8	grp_b

## More Functions

- Create Table
- Create or Modify Parts
- Format Data
- Modify Columns
- Modify Rows
- Add Rows
- Helper Functions
- Image Addition Functions
- Table Option Functions
- Information Functions
- Datasets
- Shiny Functions
- Export Functions

There is *a lot* of useful information about each function  
in **gt**'s *Function Reference* section

[gt.rstudio.com/reference](https://rstudio.com/reference)

You can try out dozens of examples in RStudio Cloud



The link is available in the package README

[github.com/rstudio/gt](https://github.com/rstudio/gt)