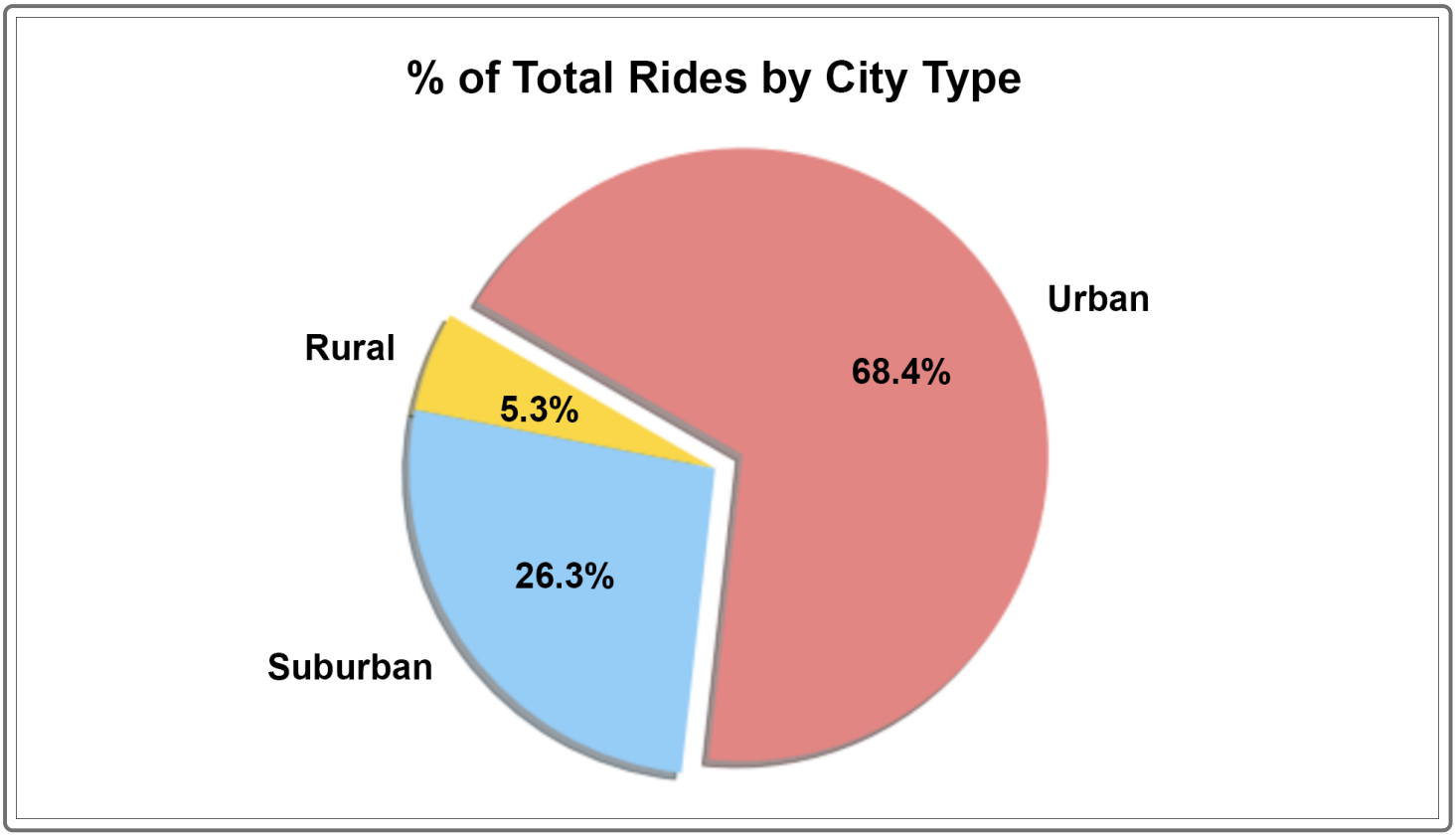
5.6.1

Calculate Ride Percentages

Feeling confident about making pie charts, you quickly get to work on writing the script to create a pie chart that showcases the percentage of total rides by city type.

The second pie chart we need to create will showcase the percentage of total rides for each type of city, where each pie wedge represents the percentage of total rides for each city type. The final pie chart should look like this:



To create this pie chart, we need to do the following:

- Get the total number of rides for each city type.

- Get the total rides for all the city types.
- Calculate the percentage of the total rides for each city type.

To get the total rides for each type of city, we need to create a Series of data where the index is the type of city, and the column for the Series is the number of the rides for the type of city. This is similar to how we created the Series for the percentage of fares for each city type.

To calculate the percentage of rides for each city type based on all the rides, we will:

1. Use the `groupby()` function on the `pyber_data_df` DataFrame and group by the type of city column:

```
pyber_data_df.groupby(["type"])
```

2. Apply the `count()` function on the `ride_id` column to get the Series with the total number of rides for each city type:

   `pyber_data_df.groupby(["type"]).count()["ride_id"]`
3. Get the number of total rides using the `count()` function on the `ride_id` column on the `pyber_data_df` DataFrame:

```
pyber_data_df["ride_id"].count()
```

4. Divide the total number of rides for each city type by the total rides for all the cities and divide by 100.

Add the following code to a new cell and run the cell.

```
# Calculate the percentage of rides for each city type.
ride_percents = 100 * pyber_data_df.groupby(["type"]).count()["ride_id"] /
ride_percents
```

When you run the cell, the output of the code will be the following percentages:

```
type
Rural          5.263158
Suburban      26.315789
Urban         68.421053
Name: ride_id, dtype: float64
```

Now we're ready to create our pie chart!