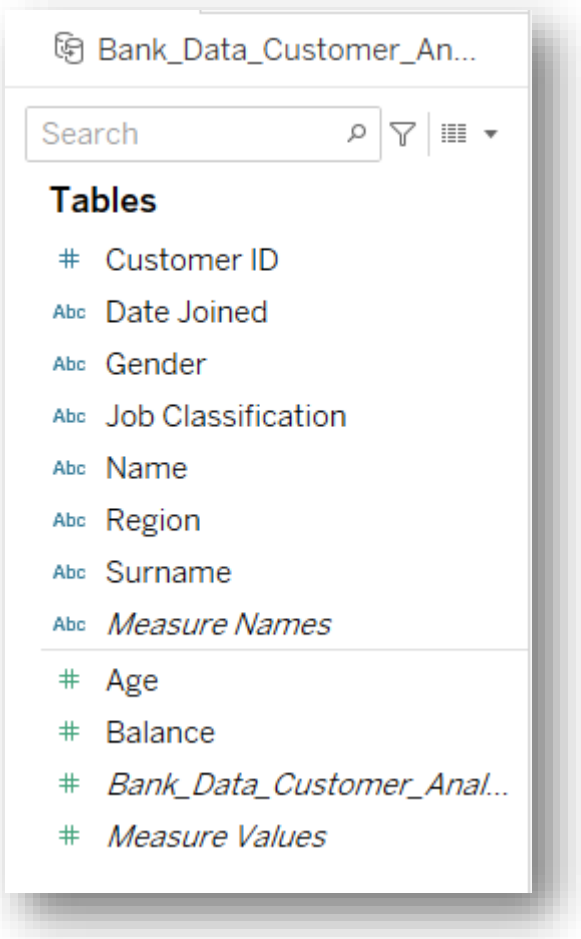
Bank Customer Data Analysis

Venkata Reddy Konasani

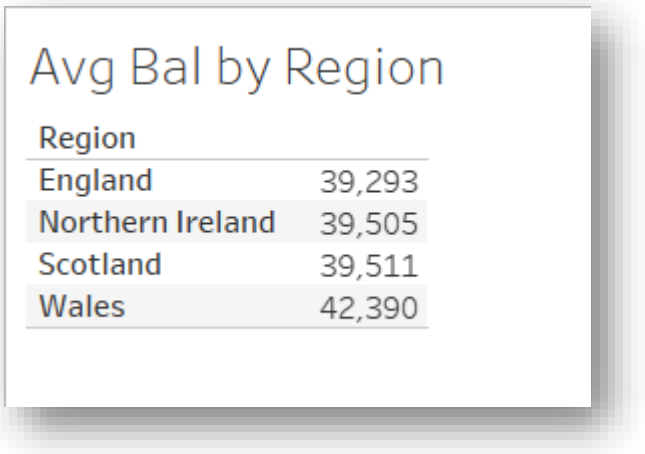
1. Import the dataset Bank_Data_Customer_Analysis.csv

Expected Result



2. Create a table to show the average balance by each state in United kingdom.

Expected Result



Avg Bal by Region

Region	
England	39,293
Northern Ireland	39,505
Scotland	39,511
Wales	42,390

3. Convert the above table into a geographical map. Show the state-wise average balance of the geographical map.

Hints:

- Convert the region variable into a geographical variable.
- Note - Set the geographical role of the variable as state/province, not Region
- Select the country as UnitedKingdom

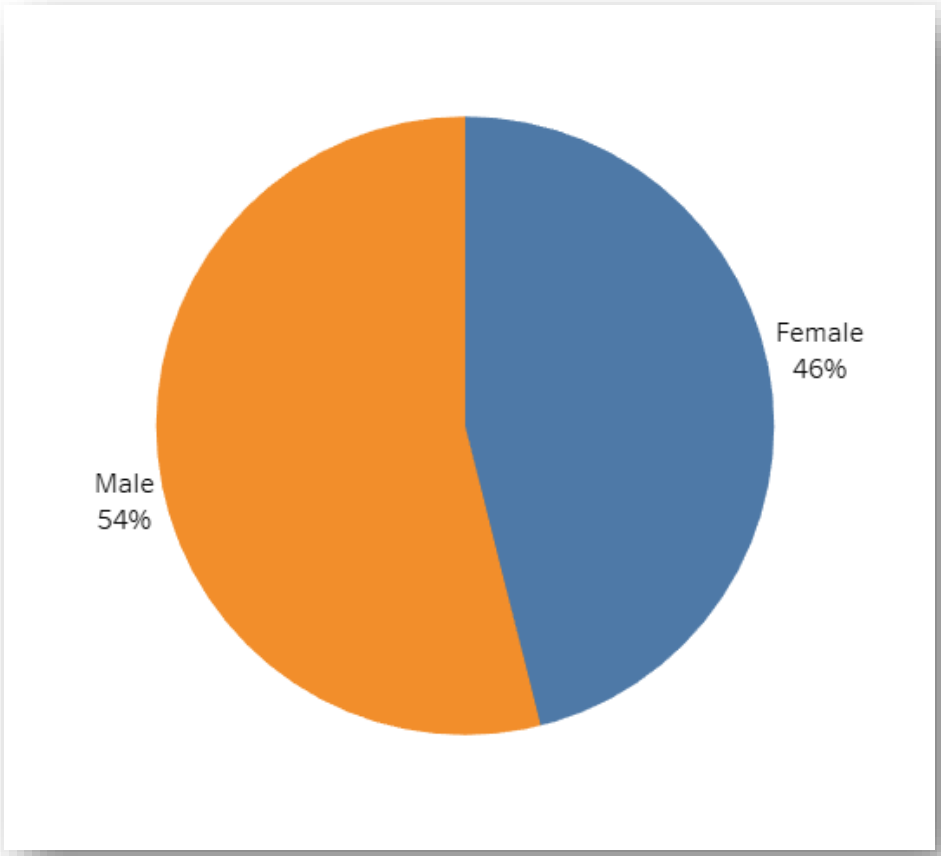
Result

4. Create a pie chart to show the percentage of customers by gender in a pie chart.

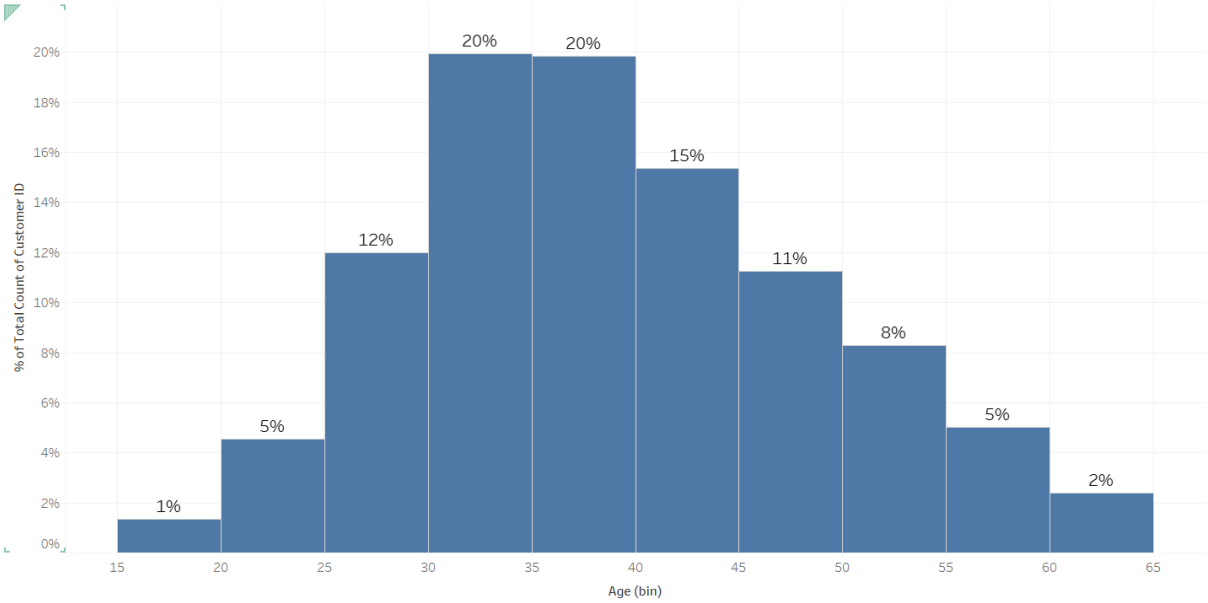
Hints:

- Use customer id count for counting the Male and Female
- After creating the pie chart, use table calculations to show the percentages on the graph.
- Use the format option to format precisely.

Result:



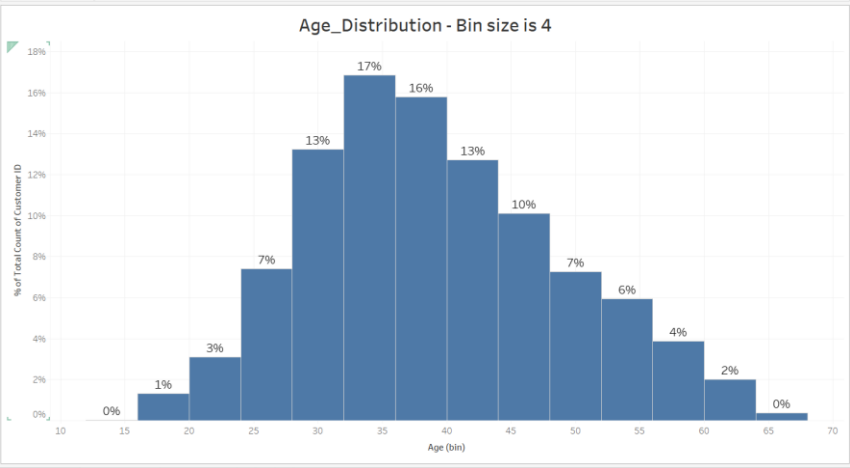
5. Create the histogram for Age. First, show the percentage values on both the Y-axis and the label. Look at the X-axis and Y- axis data labels, and format them the same way.

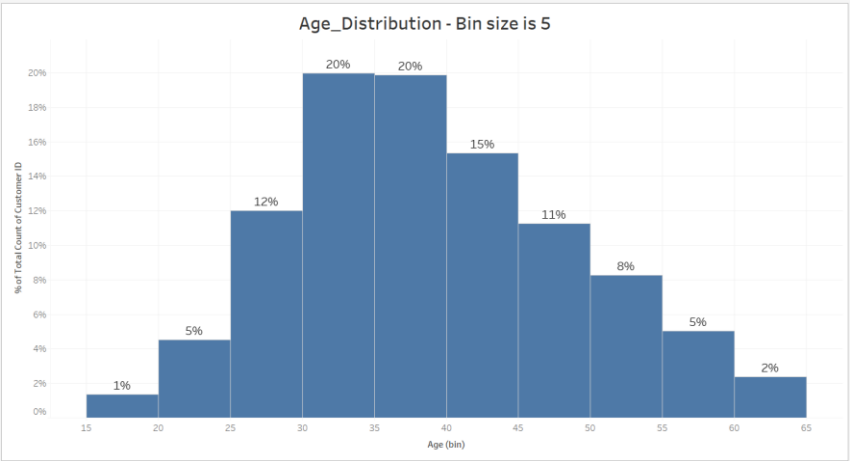


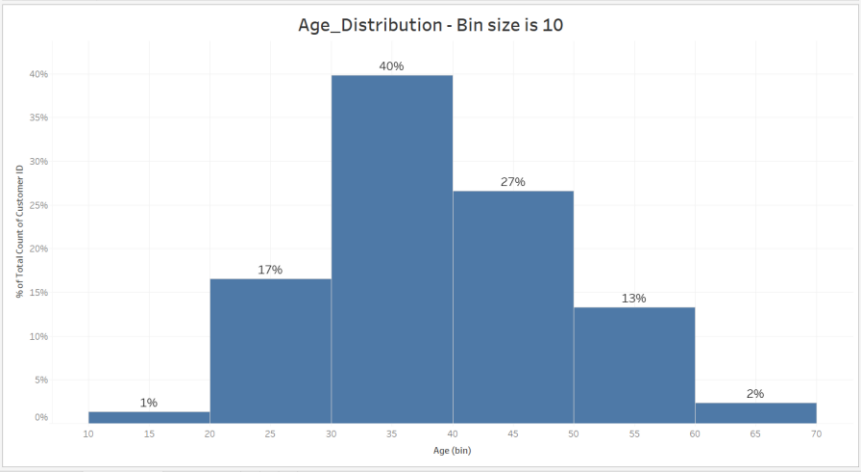
6. Create the histogram for Age (or use the above graph). Let the user choose the bin size. The user must be able to select the bin-size anywhere between 4 to 10. The chart Title should also dynamically display the bin size.

Hints:

- Use the parameter for the bin size
- Adjust the minimum and maximum values of the parameter.



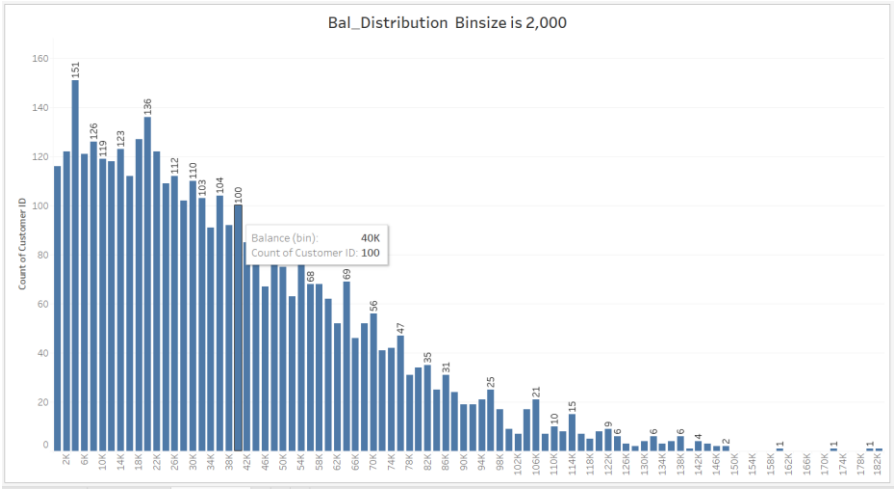


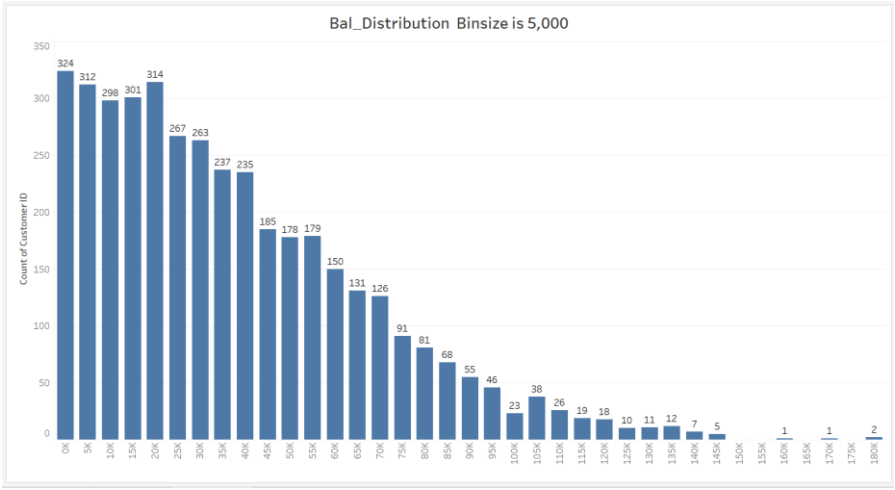


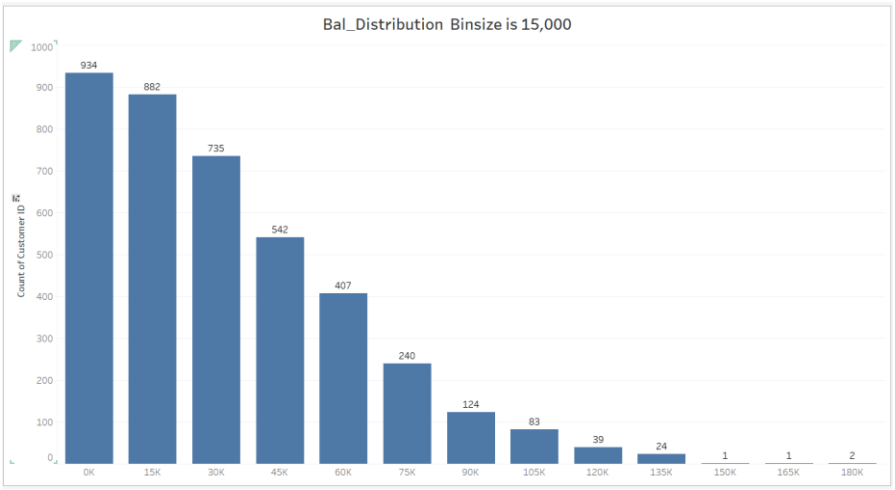
7. Create the histogram for the balance variable. Let the user choose the bin size. The user must be able to select the bin-size anywhere between 2,000 to 15,000

Hints:

- Use the parameter for the bin size
- Adjust the minimum and maximum values of the parameter.

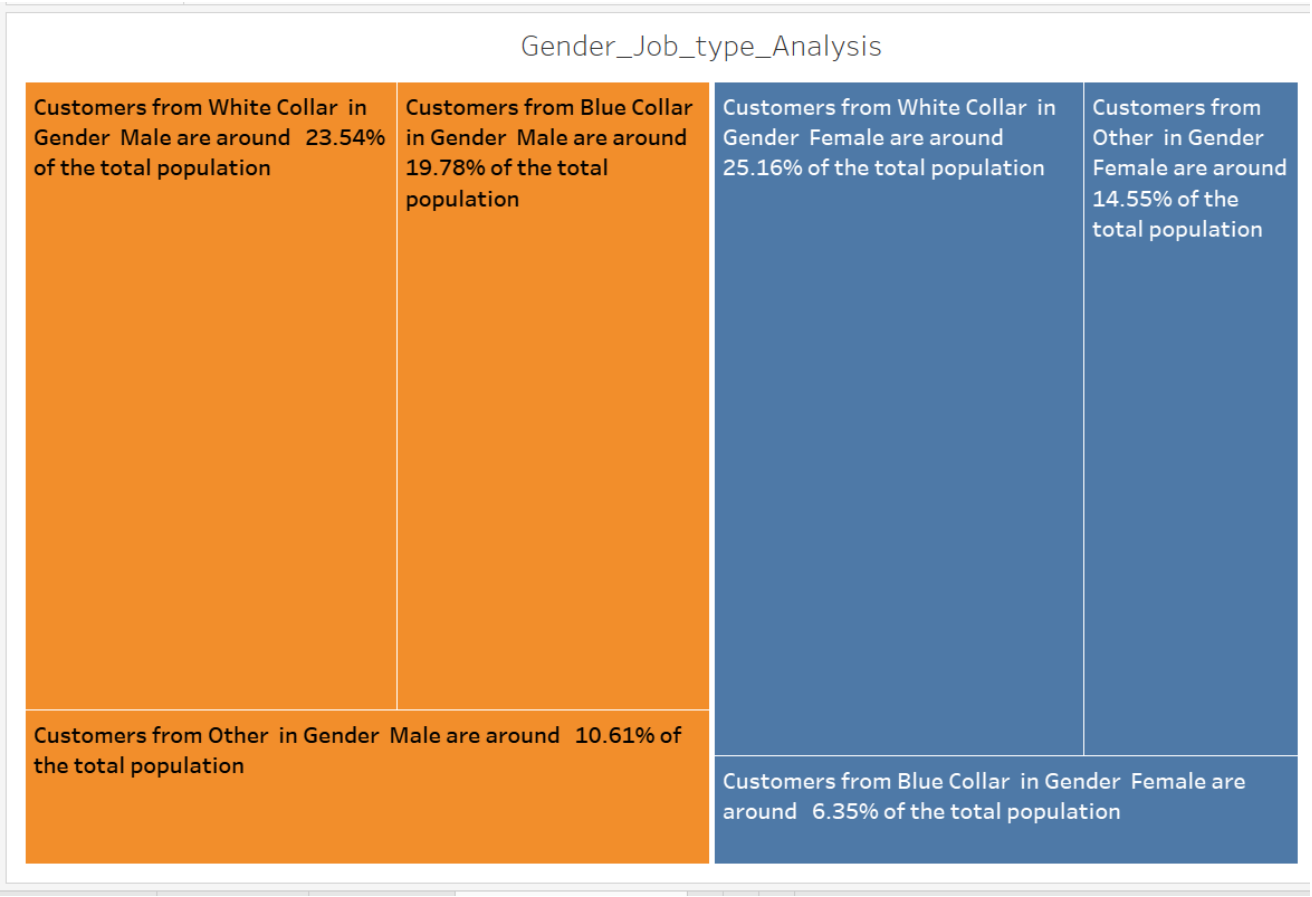






8. Create a chart to show the gender and job type-wise breakup and the percentage of customers in each job type and gender segment. Make sure that the label gives a detailed description of each segment. The result should be the same as the chart shown below.

Expected Output



9. Create a new field called "city". Use the formula below to fill in the city's values. Explain the formula using some code comments. After that, convert city into a geographical field, and try to map all the null value cities that are not identified by tableau. Finally, create a table to show the count of customers per city.

Formula

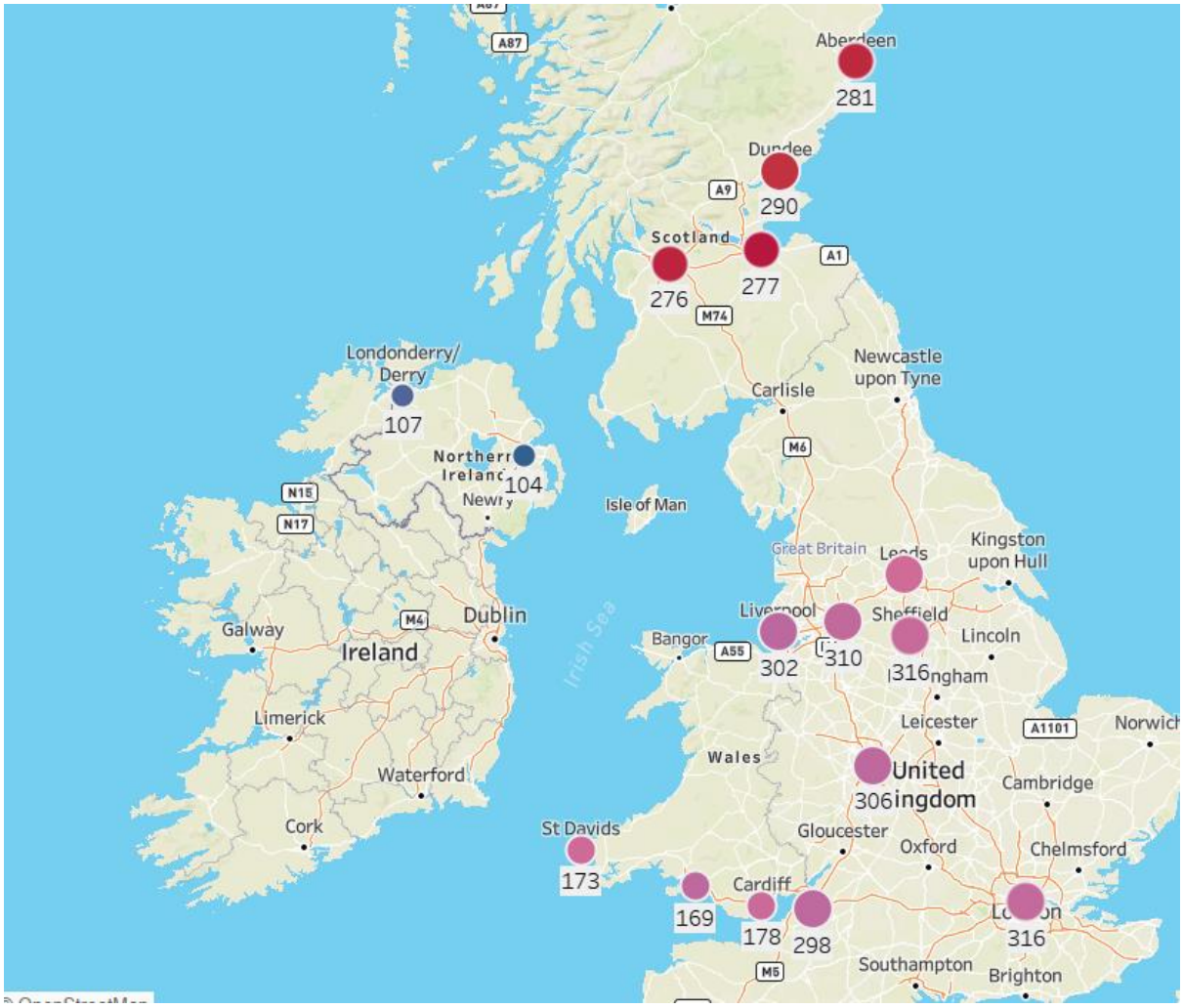
```
IF [Region] = "England" THEN
    case [Customer ID]%7
    WHEN 0 THEN "London"
    WHEN 1 THEN "Manchester"
    WHEN 2 THEN "Liverpool"
    WHEN 3 THEN "Birmingham"
    WHEN 4 THEN "Bristol"
    WHEN 5 THEN "Leeds"
    WHEN 6 THEN "Sheffield"
    END
ELSEIF [Region] = "Northern Ireland"
THEN
    case [Customer ID]%2
    WHEN 0 THEN "Belfast"
    WHEN 1 THEN "Derry/Londonderry"
    END
ELSEIF [Region] = "Scotland" THEN
    case [Customer ID]%4
    WHEN 0 THEN "Edinburgh"
    WHEN 1 THEN "Glasgow"
    WHEN 2 THEN "Aberdeen"
    WHEN 3 THEN "Dundee"
    END
ELSEIF [Region] = "Wales" THEN
    case [Customer ID]%3
    WHEN 0 THEN "Cardiff"
    WHEN 1 THEN "Swansea"
    WHEN 2 THEN "St. Davids"
    END
ELSE
""
END
```

Expected Output

City	
Aberdeen	281
Belfast	104
Birmingham	306
Bristol	298
Cardiff	178
Derry/Londonderry	107
Dundee	290
Edinburgh	277
Glasgow	276
Leeds	311
Liverpool	302
London	316
Manchester	310
Sheffield	316
St. Davids	173
Swansea	169

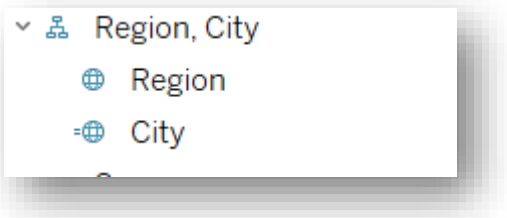
10. Create a geographical chart that shows the count of customers from each city and the average Age of customers from each city. Keep the count on the bubble size and color using the average Age.

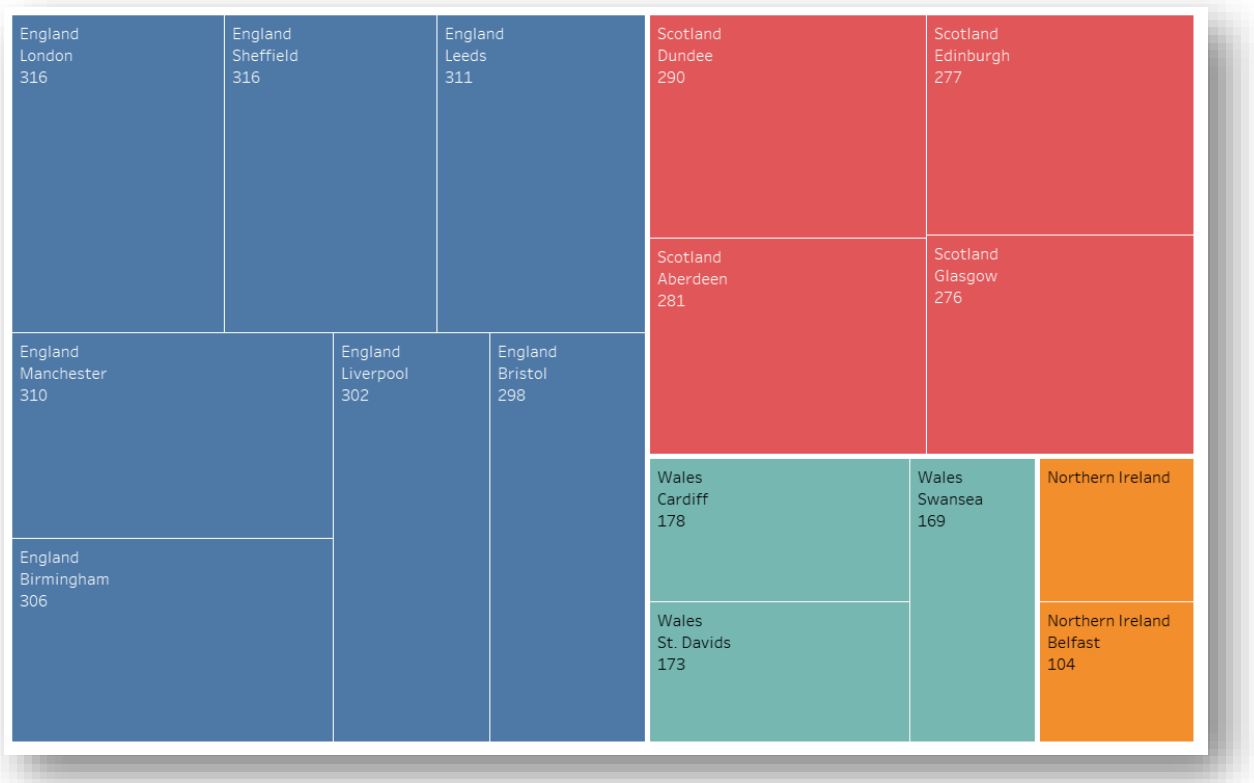
Result



11. In the same graph, group a few cities into group 1 and others into group 2. Give the color based on the city group.

12. Create Region, City hierarchical variables. After that, create a treemap chart to show the number of customers by each Region and city.





13. Create a geographical chart to show the cities and the number of customers in each city. Use Region as a highlight. When we select a particular region, only those values should get highlighted.