



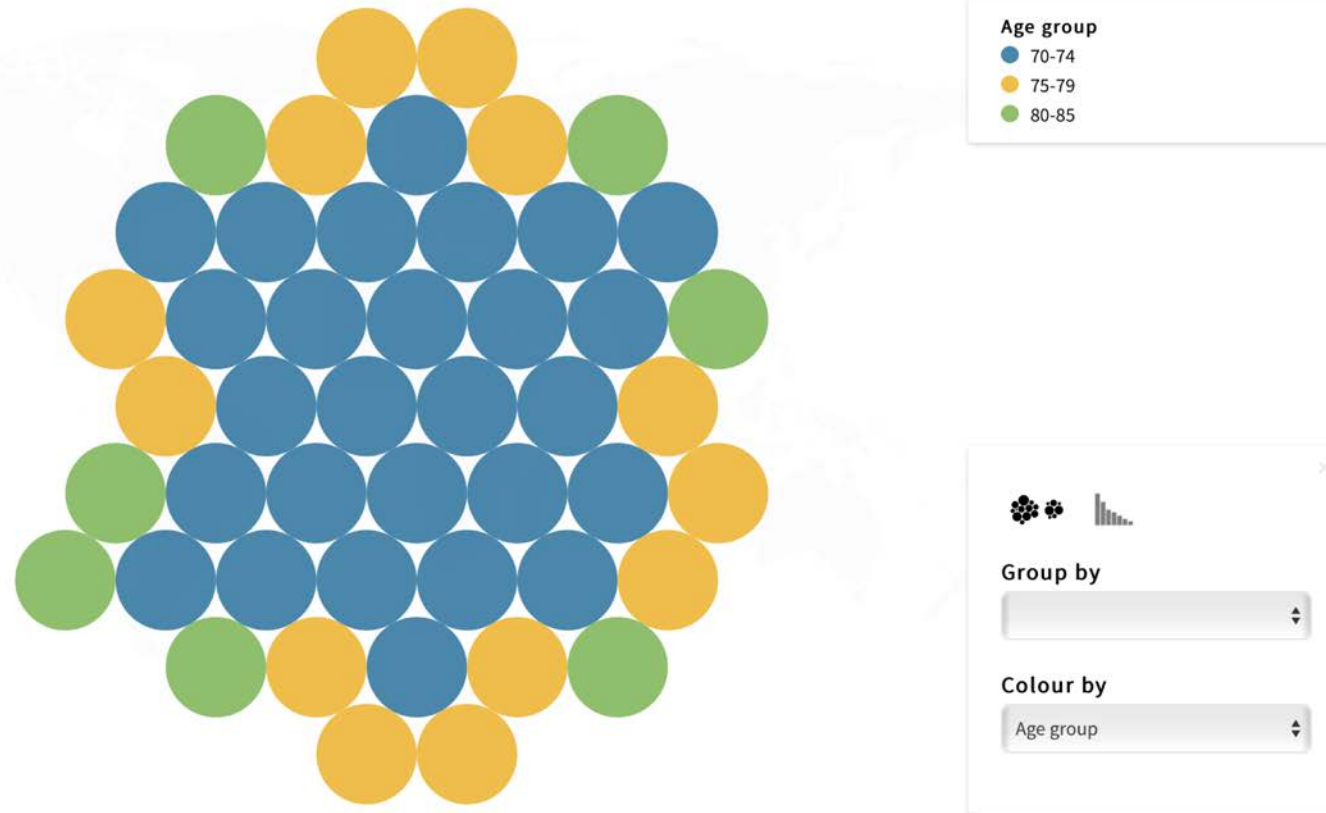
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# Creative Visualizations

“Visualization gives you answers to questions you didn’t know you had.” – Ben Schneiderman

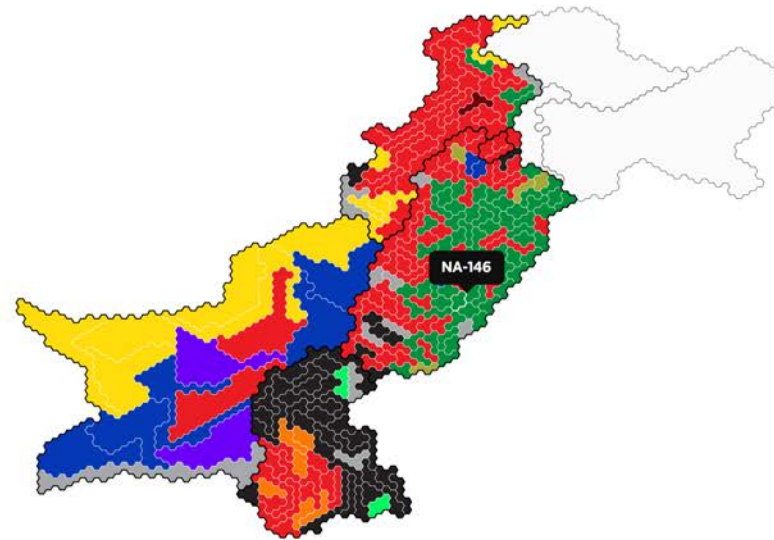
# Creative Visualizations



Sample visuals of Pakistan General Elections in 2018. For live interactive version, click [here](#)

# Creative Visualizations

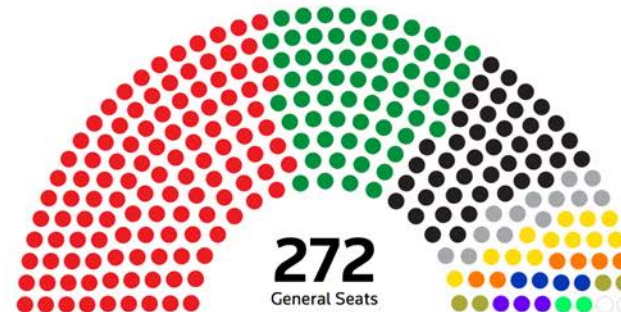
Preliminary, unofficial results - click constituency for details



## Election Results 2018



National Punjab Sindh KPK Balochistan



Sample visuals of Pakistan General Elections in 2018. For live interactive version, click [here](#)

# Raw Graphs

The missing link between spreadsheets and data visualization.

Creating and building visualizations with Rawgraphs open source platform using native drag and drop builder.

This section will address on how to use the [rawgraphs.io](https://rawgraphs.io) platform to upload data sets, select the type of visualization from pre-designed ready to choose visualizations or create custom visuals and generate visualizations that can be easily embedded to html or other sources.

# Rawgraphs.io

Step-1 – Visit the website

RAWGraphs

About Blog Learning Gallery Documentation User survey

# RAWGraphs

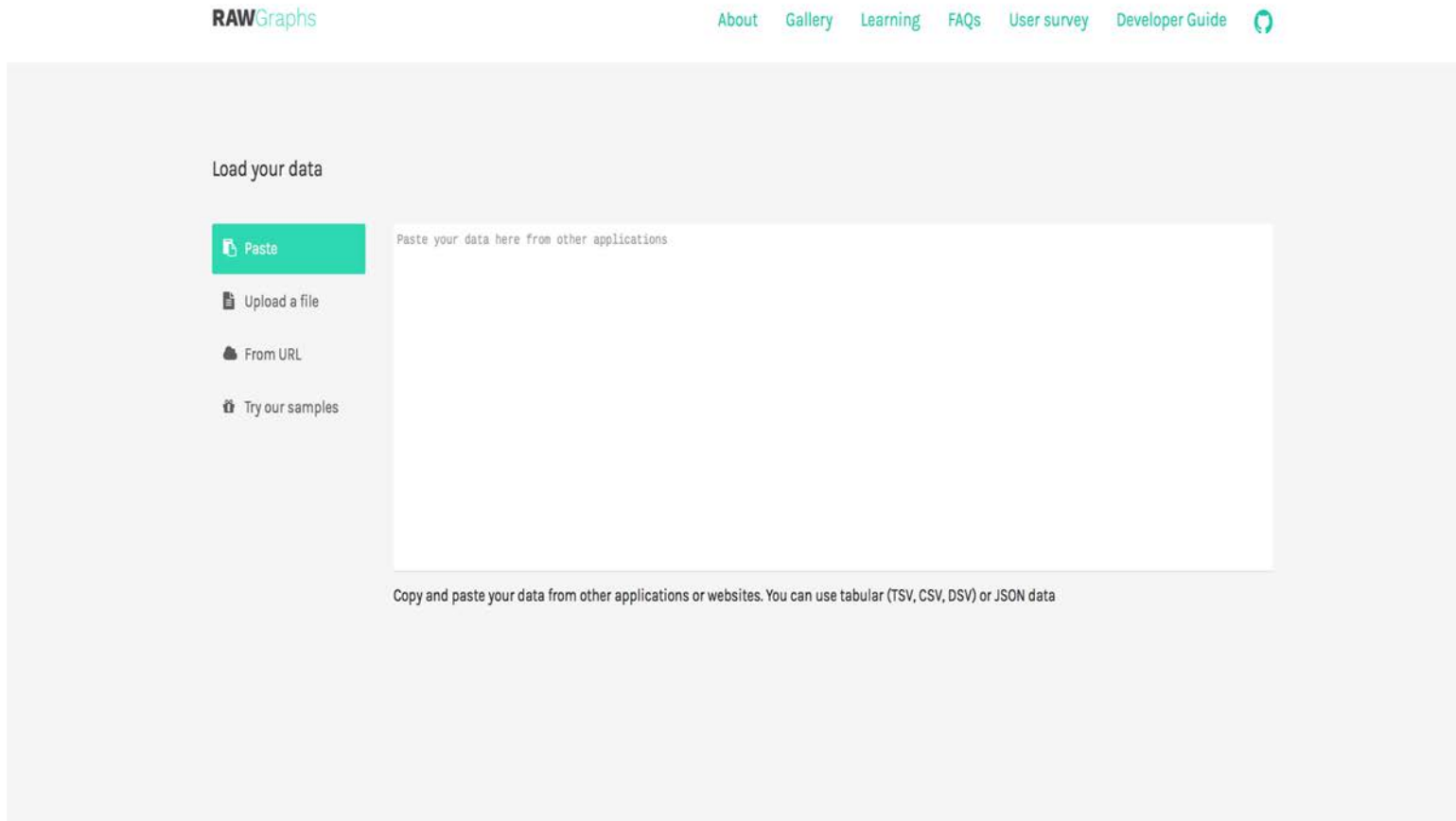
The missing link between spreadsheets and data visualization.

USE IT NOW! FORK IT ON GITHUB

Supported by Contactlab

# Rawgraphs.io

## Step-2 – Uploading the Data Set



Using the “Load your data” option:

1- Either paste the entire csv, tsv, dsv or json data into the box

OR

2- Upload the data file

OR

3- Refer it using a URL

OR

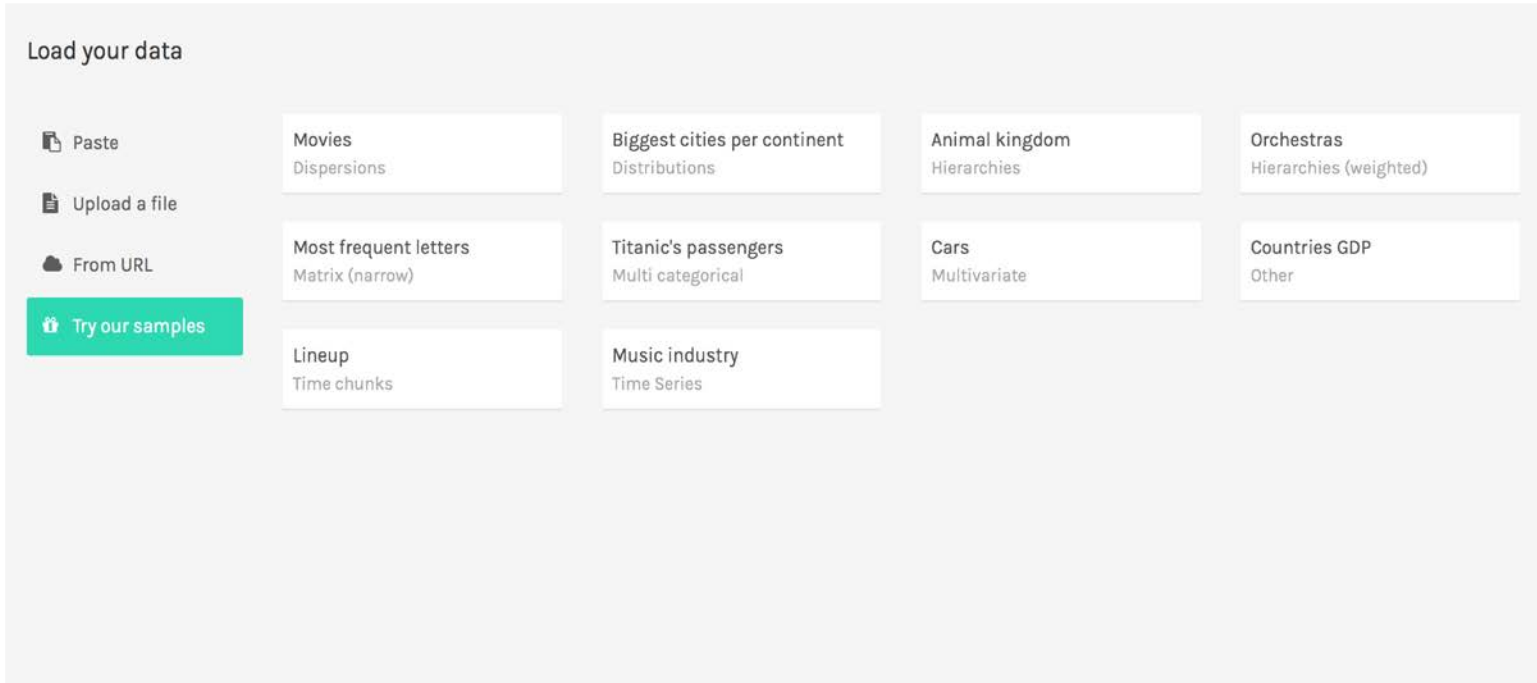
4- Use one of the uploaded sample data sets.

Here in this example, we will use the sample data sets, using the option 4.



# Rawgraphs.io

## Step-3 – Selecting the Sample Data Set



Selecting the option “Load your data” will show up this screen.

Select one of the options here. In this session, we will work on “Most frequent Letters” data set.

Clicking on “Most frequent letters” will load the dataset.

# Rawgraphs.io

## Step-4 – Changing the View style


Load your data

- Paste
- Upload a file
- From URL
- Try our samples

Letter	Language	Frequency	Rank
a	English	0.08	3
b	English	0.01	other
c	English	0.03	other
d	English	0.04	other
e	English	0.13	1
f	English	0.02	other
g	English	0.02	other
h	English	0.06	other
i	English	0.07	other
j	English	0.00	other
k	English	0.01	other
l	English	0.04	other
m	English	0.02	other
n	English	0.07	other

👍 78 records in your data have been successfully parsed!

Your data seems ready to go. But if you want to stack it anyway, click here



As it can be seen, the data has been loaded from the file in csv format. To switch between the view/display types, use the “toggle” button on the top right of window.

The window also allows to edit data records once it is loaded. So once the data is loaded, you may proceed to next step.

# Rawgraphs.io

## Step-5 – Uploading the Data Set


Load your data

- Paste
- Upload a file
- From URL
- Try our samples

Letter	Language	Frequency	Rank
a	English	0.08	3
a	German	0.07	other
a	Italian	0.12	2
b	English	0.01	other
b	German	0.02	other
b	Italian	0.01	other
c	English	0.03	other
c	German	0.03	other
c	Italian	0.05	other
d	English	0.04	other

👍 78 records in your data have been successfully parsed!

Your data seems ready to go. But if you want to stack it anyway, click here



As it can be seen, the data has been loaded from the file in csv format. To switch between the view/display types, use the “toggle” button on the top right of window.

The window also allows to edit data records once it is loaded. So once the data is loaded, you may proceed to next step.

# Rawgraphs.io

## Step-5 – Uploading the Data Set – Stacking the Data

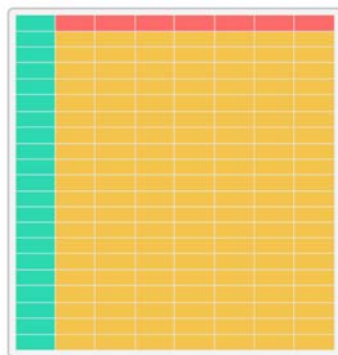
Load your data

- Paste
- Upload a file
- From URL
- Try our samples

Letter	Language	Frequency	Rank
a	English	0.08	3
a	German	0.07	other
a	Italian	0.12	2
b	English	0.01	other
b	German	0.02	other
b	Italian	0.01	other
c	English	0.03	other
c	German	0.03	other
c	Italian	0.05	other
d	English	0.04	other

👍 78 records in your data have been successfully parsed!

Your data seems ready to go. But if you want to stack it anyway, click here



Wide format



Narrow format

The Wide and Narrow data sets are usually referred as “Stacked” or “unstacked” data in Rawgraphs. In most of formats, the application requires to use the Narrow format

Depending upon your choice of data and metrics, you can switch between stacking and unstacking option by selecting the attribute from the list of available options.

# Rawgraphs.io

## Step-6 – Selecting the Visualization type

Choose a Chart

**Scatter Plot**  
Dispersion

Contour Plot  
Dispersion

Convex Hull  
Dispersion

Hexagonal Binning  
Dispersion

**Scatter Plot**  
Dispersion

Voronoi Tessellation  
Dispersion

Beeswarm Plot  
Distribution

Box plot  
Distribution

Circular Dendrogram  
Hierarchy

Cluster Dendrogram  
Hierarchy

Circle Packing  
Hierarchy (weighted)

Sunburst  
Hierarchy (weighted)

Treemap  
Hierarchy (weighted)

Alluvial Diagram  
Multi categorical

Parallel Coordinates  
Multivariate

Bar chart  
Other

Pie chart  
Other

A scatter plot, scatterplot, or scattergraph is a type of mathematical diagram using Cartesian coordinates to display values for two variables for a set of data. The data is displayed as a collection of points, each having the value of one variable determining the position on the horizontal axis and the value of the other variable determining the position on the vertical axis. This kind of plot is also called a scatter chart, scattergram, scatter diagram, or scatter graph.

Once the data set is loaded, the window section will be automatically scrolled down to select the chart types that you would like to visualize.

Depending upon your type of selection, select the chart that you would like to design for your data set.

Here we will select “Bar Chart” as our visualization type.

# Rawgraphs.io

## Step-7 – Defining parameters / dimensions

Map your Dimensions

Letter string →

Language string →

Frequency number →

Rank string →

X Axis \*  
Drag numbers, strings here  
Letter string x

Height  
Drag numbers here  
Frequency number x

Groups  
Drag numbers, strings here  
Language string x

Colors  
Drag strings here  
Rank string x

After selecting the type of visualization, the page will scroll down to mapping the data dimensions to map with visualization parameters.

Each axis and required value specifies to the type of data it can accept.

Drag the respective attributes from left side to each one of the dimensions required and it will start building the visualization.

Here, drag “Letter” to X axis, “Frequency” to Height, “Language” to Groups and “Rank” at Colors

# Rawgraphs.io

## Step-8 – Generating Visual & final touch up



This is generated visualization based on the data set and parameters we mapped according to previous slide.

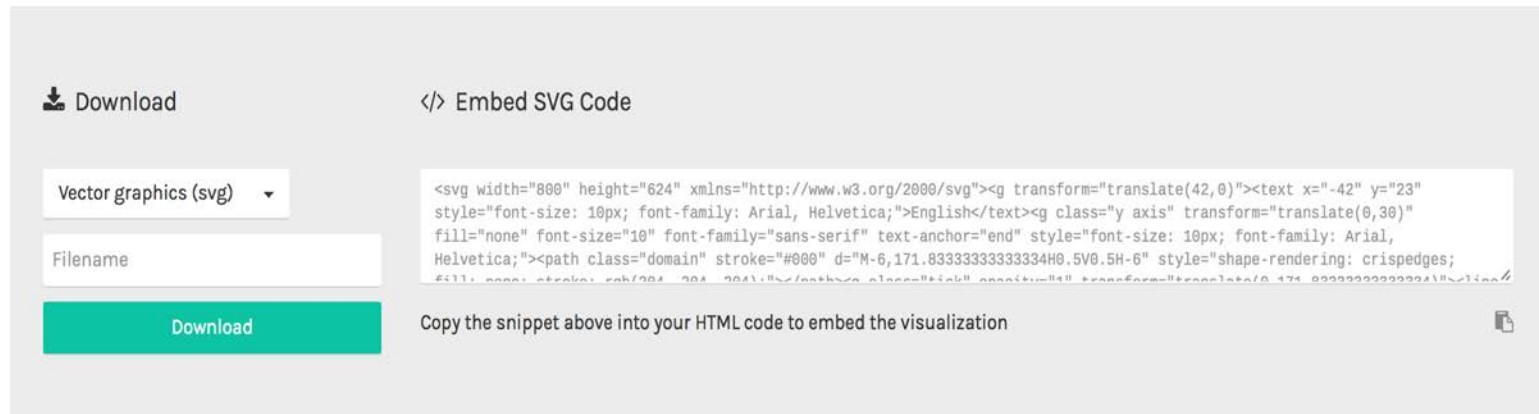
These are few touch ups to spacing, height, width, margins and padding information that can be used to customize the visualization.

You can alter the color of each bar by selecting the options from color scale.

Select any value in the “Color Scale” and you can alter the color for frequency of letter occurrence.

# Rawgraphs.io

## Step-9 – Exporting the visualization



The screenshot shows the export options for a visualization. On the left, there is a 'Download' section with a dropdown menu set to 'Vector graphics (svg)', a 'Filename' input field, and a green 'Download' button. On the right, there is an 'Embed SVG Code' section with a code editor containing the following SVG code snippet:

```
<svg width="800" height="624" xmlns="http://www.w3.org/2000/svg"><g transform="translate(42,0)"><text x="-42" y="23" style="font-size: 10px; font-family: Arial, Helvetica;">English</text><g class="y axis" transform="translate(0,30)" fill="none" font-size="10" font-family="sans-serif" text-anchor="end" style="font-size: 10px; font-family: Arial, Helvetica;"><path class="domain" stroke="#000" d="M-6,171.8333333333334H0.5V0.5H-6" style="shape-rendering: crispedges; fill:none; stroke: rgb(0, 0, 0);" /></path></g></g></svg>
```

Below the code editor, there is a note: 'Copy the snippet above into your HTML code to embed the visualization' and a copy icon.

This is the final step in finalizing the visualization.

Select the type of export format you would like to choose here and define a name for the exported visualization image.

The exportable formats are .svg, .png and json formats.

OR

SVG code snippet can be copied and it can be embedded in html for web integration.



# Rawgraphs.io

Personalization

- Try experimenting with your own data sets and other visualizations
- Try creating your own visual by going through the [documentation](#) available on the website.
- Try different variants, alternating the attributes between different axes and observe the visualization behavior
- If required at any stage, I can be reached through my email address [omerayoub@hotmail.com](mailto:omerayoub@hotmail.com)

I would appreciate your feedback about the content of this presentation and how it has helped you in improving your visualization skills and generating beautiful creative reports within just few clicks.