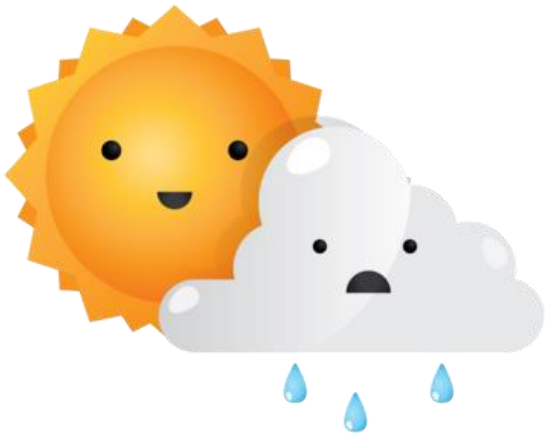

USER GUIDE

Climate Visualization Platform

Study in Singapore's Historical Climate

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IS428 Visual Analytics

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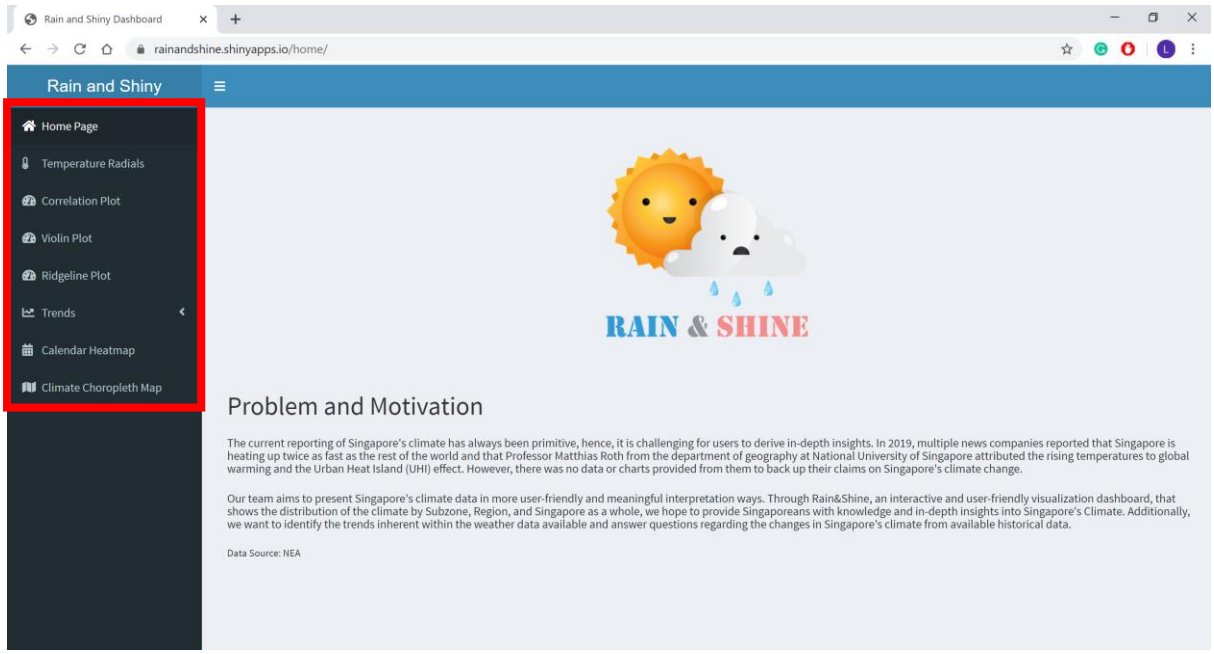
Table of Contents

1. Home Page

Upon clicking on the following link: https://rainandshine.shinyapps.io/home/ user will be redirected to our homepage. In this page, the user will be able to read on the current problem faced, our motivation in this project and the objectives of the platform. Users can navigate to the different tabs at the left menu bar to view the respective chart.

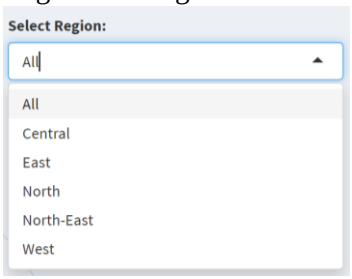


2. Temperature Radials Page

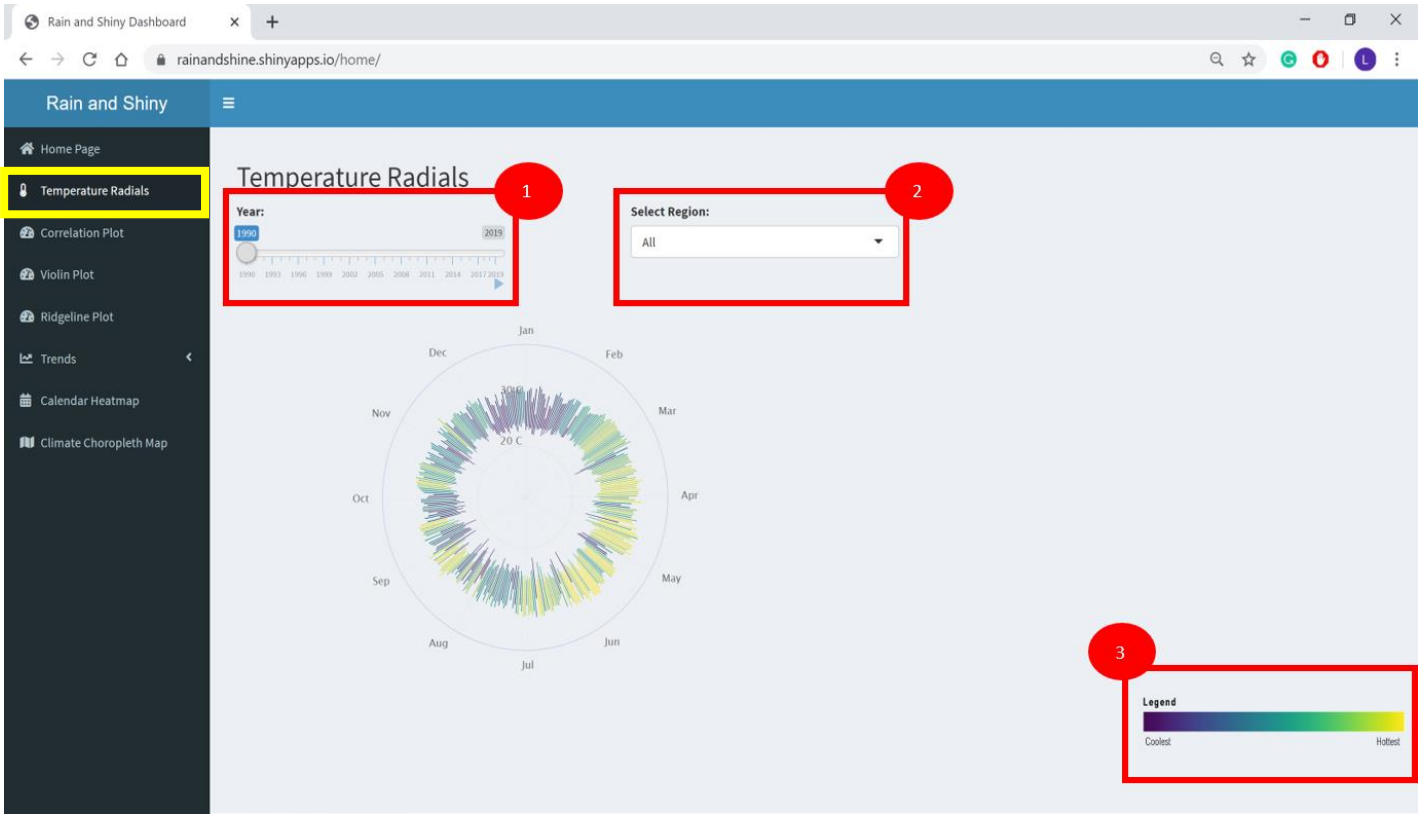
The Temperature Radials page shows the minimum, maximum and mean temperature of Singapore for each available year. Hovering over the graph is possible to show the value details.

Red Bubbles:

1. Year filtering function available through a slider.
2. Region filtering function available through a dropdown list.



3. The page also has a legend to represent the meaning of the colour in the graph.



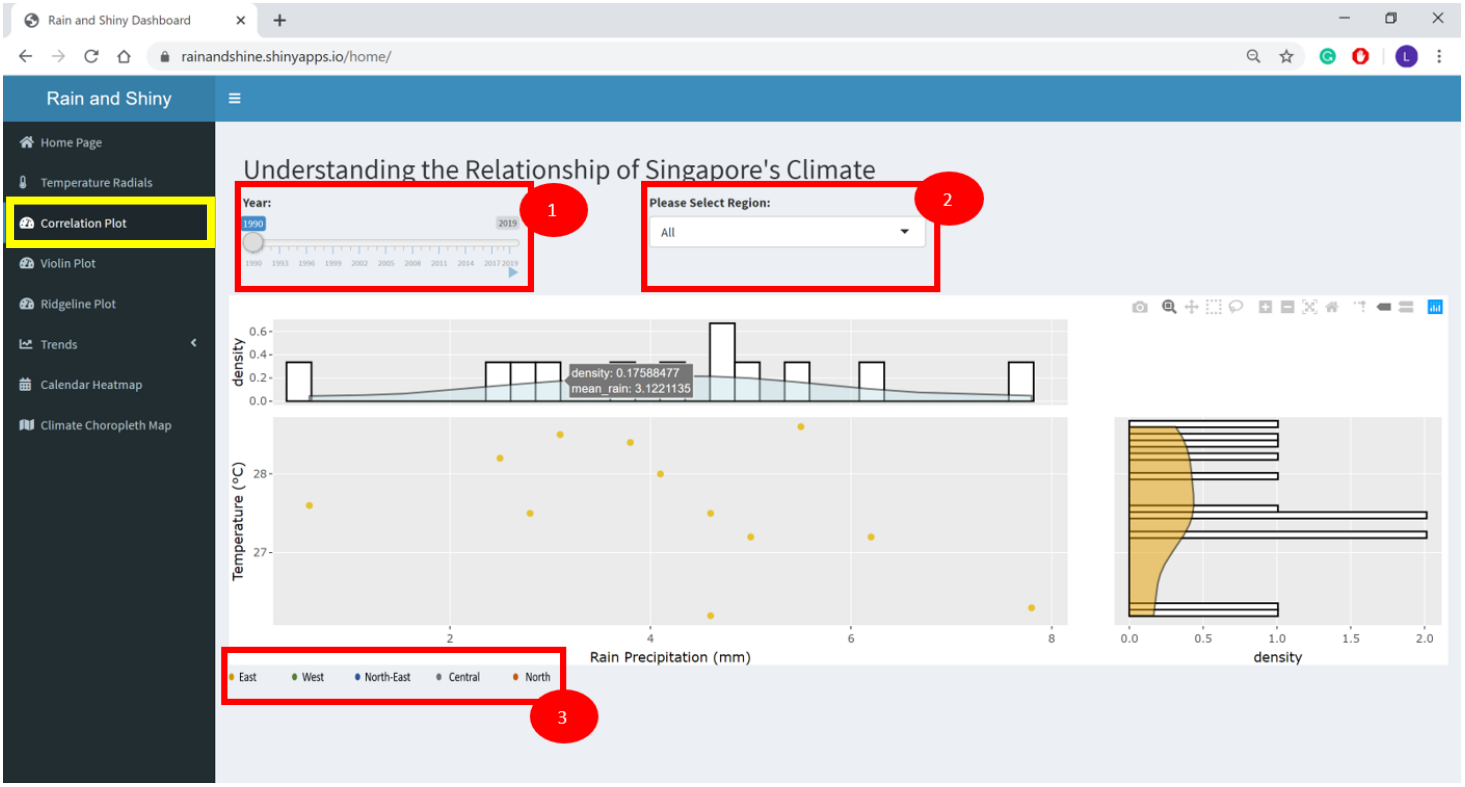
How to access: *click on the* ***Temperature Radials*** *at the menu bar. (refer to Yellow Box)*

3. Correlation Plot

The Correlation Plot has 3 charts in total that aims to help users to find potential relationship between Singapore's temperature and rain precipitation. It consists of a rain density plot, temperature density plot and a scatter plot that plotted using mean temperature against mean rain. Hovering over the graph is possible to show the value details.

Red Bubbles:

1. Year filtering function available through a slider.
2. Region filtering function available through a dropdown list.
3. The page also has a legend to represent the meaning of the colour in the graph.



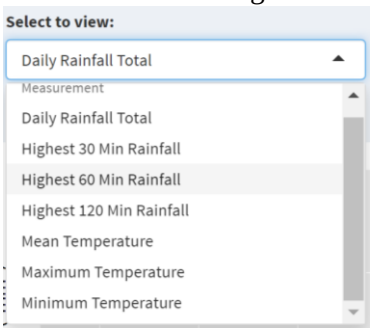
How to access: *click on the* ***Correlation Plot*** *at the menu bar. (refer to Yellow Box)*

4. Violin Plot

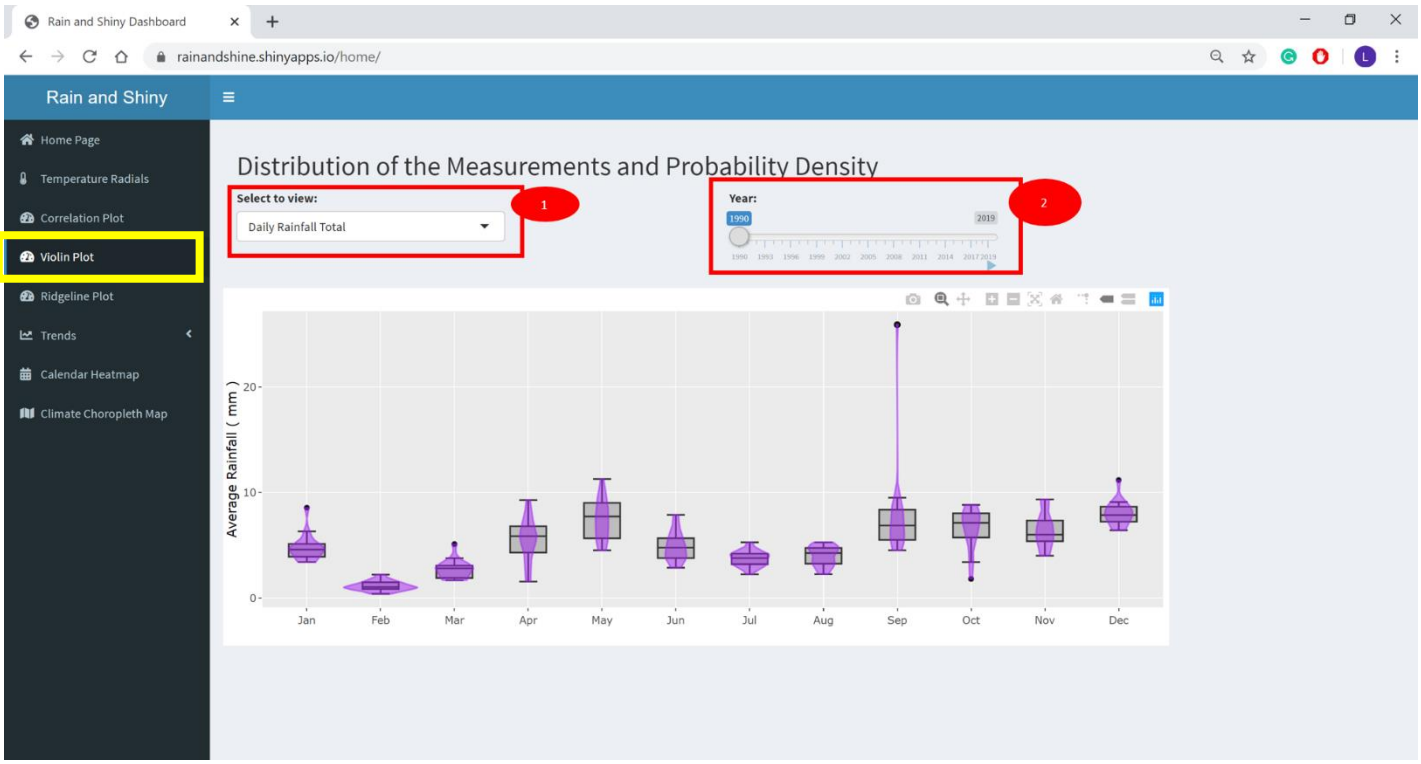
Users can view the distribution and probability density of each measurements available based on the data provided from the NEA website. Hovering over the graph is possible to show the value details.

Red Bubbles:

1. Measurement filtering available through a dropdown list.



2. Year filtering function available through a slider.



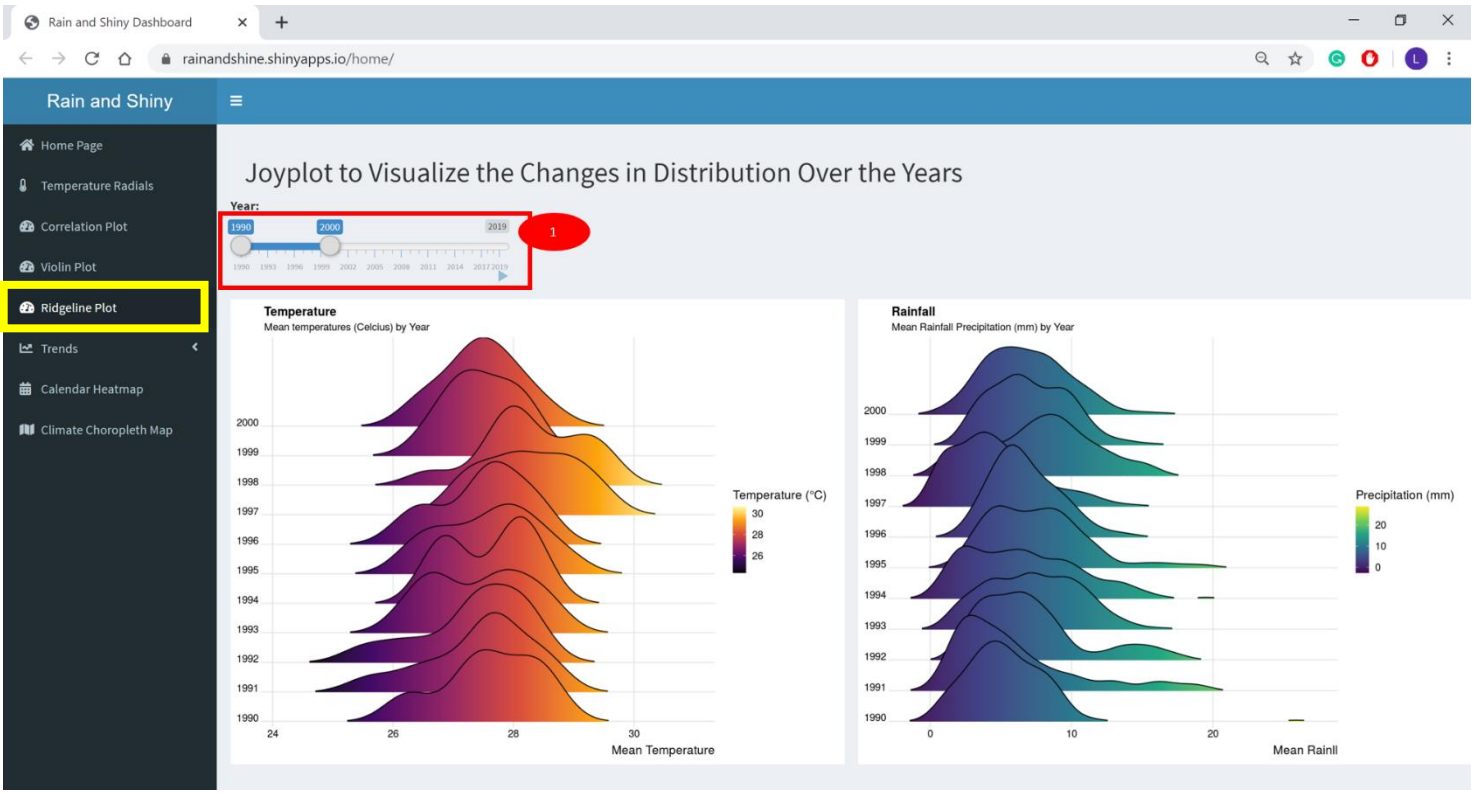
How to access: *click on the* ***Violin Plot*** *at the menu bar. (refer to Yellow Box)*

5. Ridgeline Plot

The ridgeline plot is made up of a series of histograms, density plots or time series for a number of data segments, all aligned to the same horizontal scale and presented with a slight overlap. Users to can use this chart to have a different comparison of rainfall and temperature over the years in a single view.

Red Bubbles:

1. Year filtering function available through a slider.
    - Users have the freedom to increase or reduce the number of years to display by using the slider.



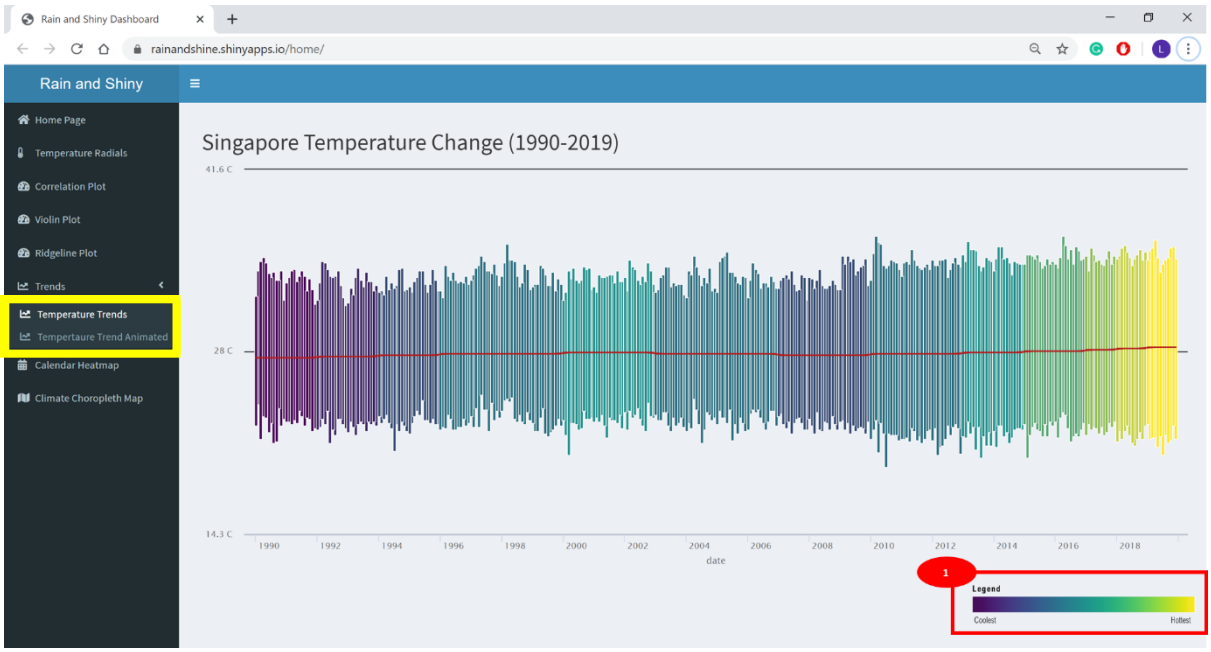
How to access: *click on the* ***Ridgeline Plot*** *at the menu bar. (refer to Yellow Box)*

6. Temperature Trends

Temperature Trends is a line graph that provides a high overview of Singapore's temperature changes starting from 1990 to 2019. Hovering over the graph is possible to show the value details.

Red Bubbles:

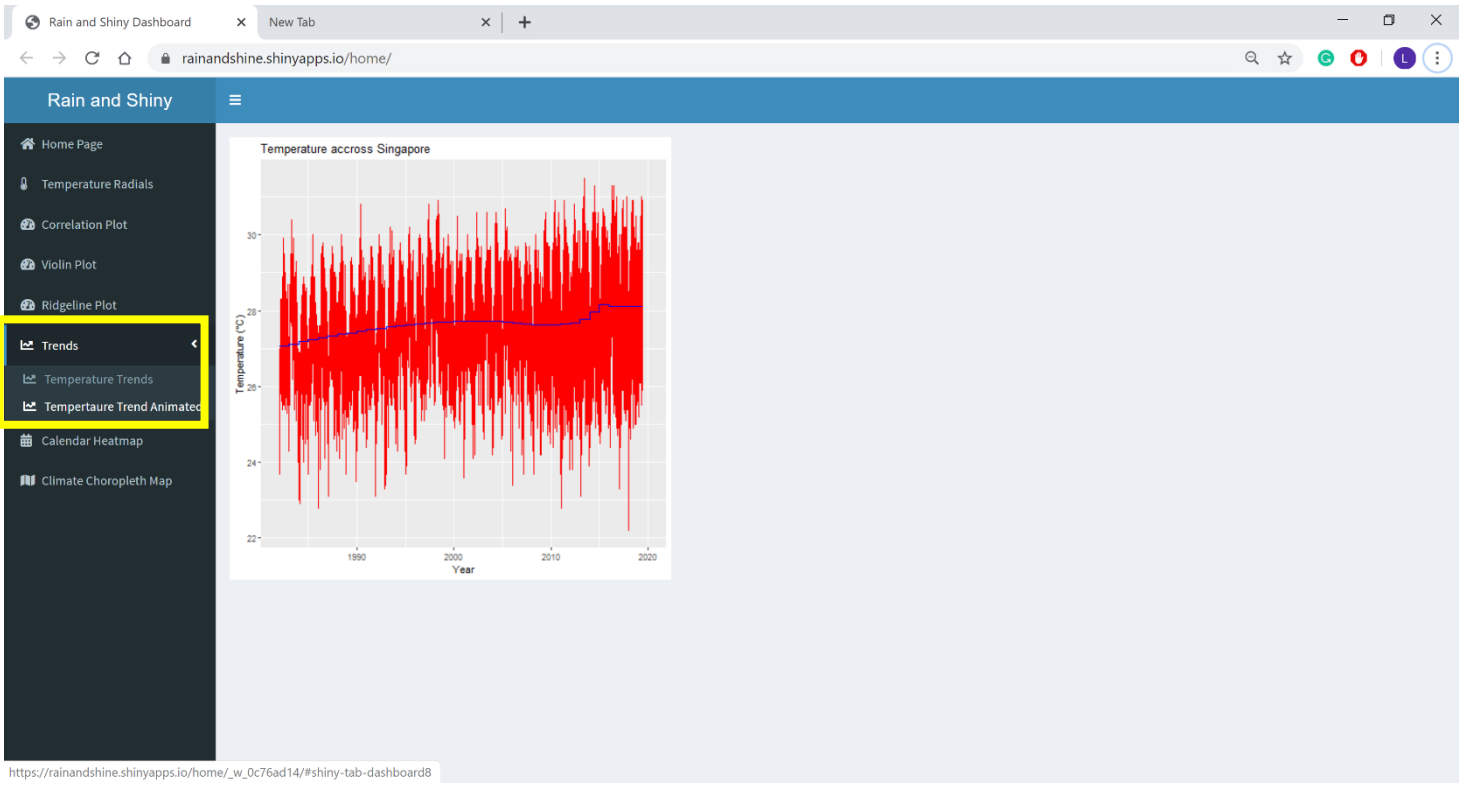
1. The page also has a legend to represent the meaning of the colour in the graph.



How to access: *click on the* ***Trends > Temperature Trends*** *at the menu bar. (refer to Yellow Box)*

7. Temperature Trend Animated

This chart is an animated trendline for users to have better visualize how the temperature has changed over the years.



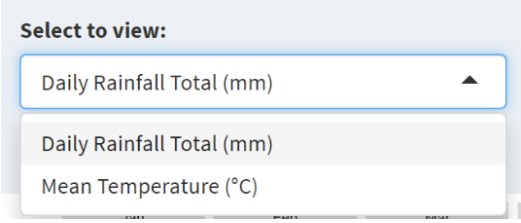
How to access: *click on the* ***Trends > Temperature Trend Animated*** *at the menu bar. (refer to Yellow Box)*

8. Calendar Heatmap

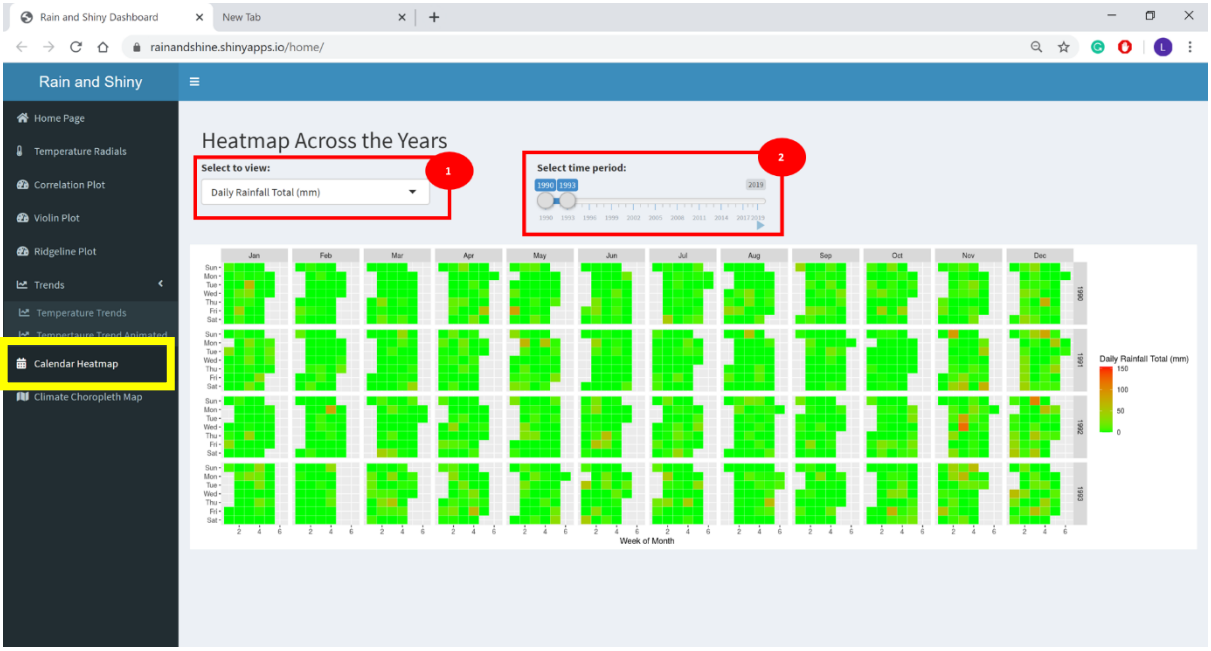
Calendar heatmap provides a visually appealing way to visualize the number of commits made by the user across the year in a **calendar**-like view. Therefore, users can use this to identify daily patterns or anomalies.

Red Bubbles:

1. Measurement filtering available through a dropdown list.



2. Year filtering function allowing users to select a range of dates they are interested in.



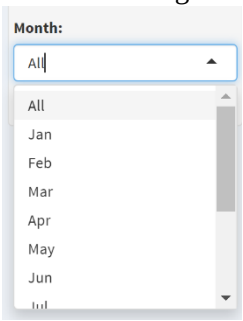
How to access: *click on the* ***Calendar Heatmap*** *at the menu bar. (refer to Yellow Box)*

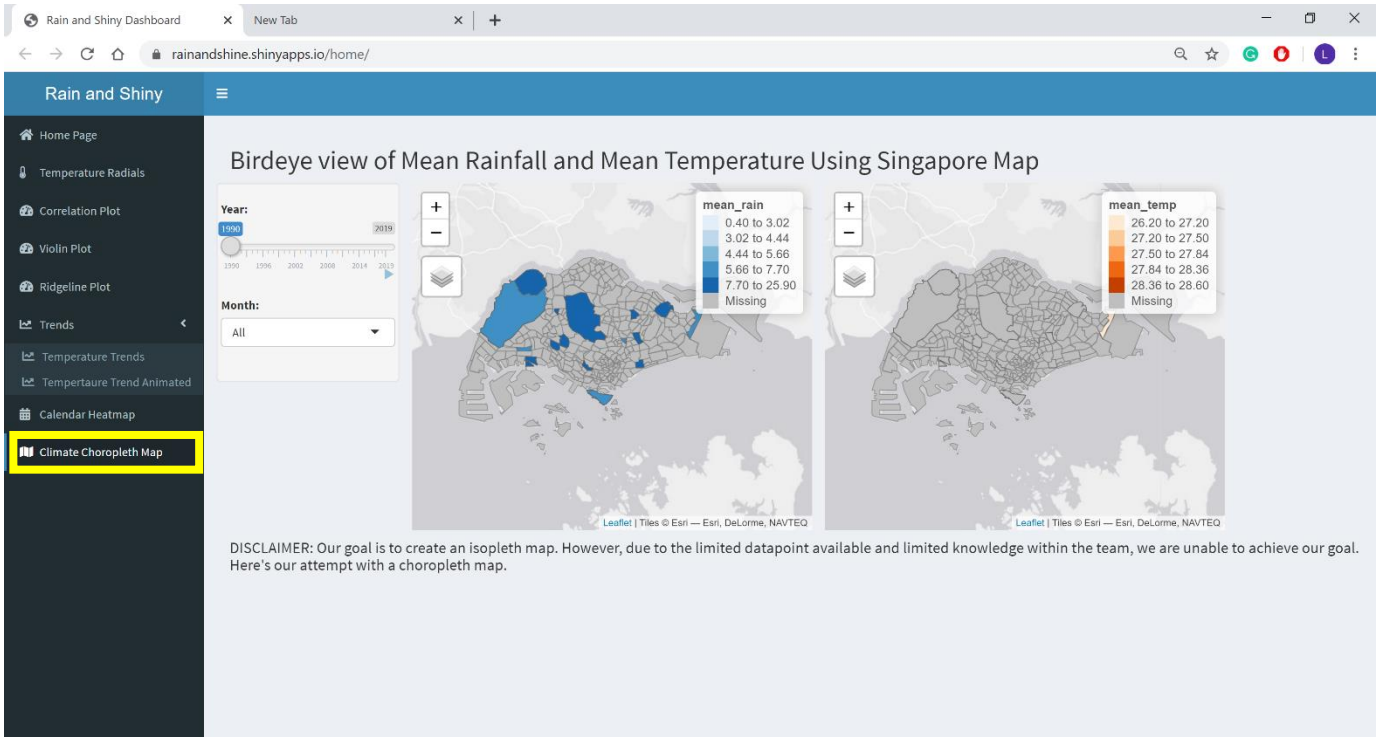
9. Climate Choropleth Map

This Choropleth Map as initially planned to be an isopleth map to help users to identify the rainiest area/ driest area and warmest/coolest zone in Singapore. However, due to the limited resources available online and knowledge within the team, we can only substitute with Choropleth Map.

Red Bubbles:

1. Year filtering available through sliders.
2. Month filtering available through a dropdown list.





How to access: *click on the* ***Climate Choropleth Map*** *at the menu bar. (refer to Yellow Box)*

The End

THANK YOU