

Module 3: Creating charts, and tab sets in a specified layout of a dashboard

contributed by

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Objective

1. Add/Edit charts on a given layout of a dashboard.
2. Adding graphs and tables in a chart.
3. Creating tabsets in a dashboard.

Data

airquality dataset available in R.

1. Add/Edit charts on a given layout of the dashboard.

- a. **The chart allocates space to display an output, such as tables/plots, etc.**
- b. By default, any chart is defined by Level 3 headers (see Tutorial 2) in markdown.
- c. **Level 3 header:** Type “### <Chart Name>” within a column/row of the dashboard.
- d. The chart's name will be displayed as a header (see Figure 1).
- e. The **data-width** and **data-height** parameters allow the charts to be resized in the same manner as columns (see Tutorial 2).
- f. Multiple charts can be placed in a column/row of a dashboard.

2. Adding a plot and a table in a chart

Refer to Module 2 to create a dashboard with row orientation and one row.

- A. *Add histogram in a chart* (see Figure 1) using the following steps:
 - a. **Step 1:** Add a chart named ‘### Histogram’.
 - b. **Step 2:** Specify the width with ‘{data-width=2}’ beside the name (as in Tutorial 2).
 - c. **Step 3:** Insert a code chunk.
 - d. **Step 4:** In the code, write ‘**hist(airquality\$Temp), main = "Histogram of Temperature"**’.
 - e. **Step 5:** Click on ‘Run Document’.

Note: Refer to [Module 8 Creating a histogram.pdf](#) to read more about creating histograms.

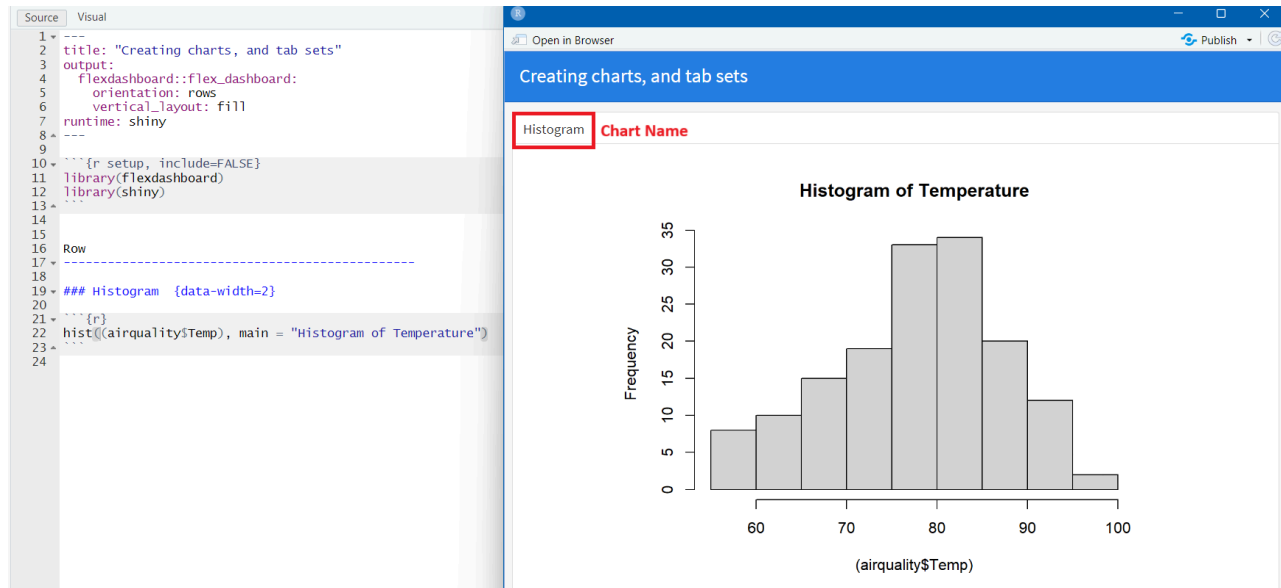


Figure 1: Adding a histogram in a chart

- B. Inserting a table in a placeholder (see Figure 3) using the following steps::
- Step 1:** Add a chart named '### Summary Table'.
 - Step 2:** Specify the width by '{data-width=3}' beside the name.
 - Step 3:** Insert a code chunk.
 - Step 4:** In the code chunk, write 'summary(airquality[c("Temp","Wind","Ozone")])'. (see Figure 2)
 - Step 5:** Save and Run the document.

Note: Refer to [Module 7 Summary statistics of a continuous variable \(fossee.in\)](https://fossee.in) to read more about creating a summary statistics table.



Figure 2: Code for creating two charts

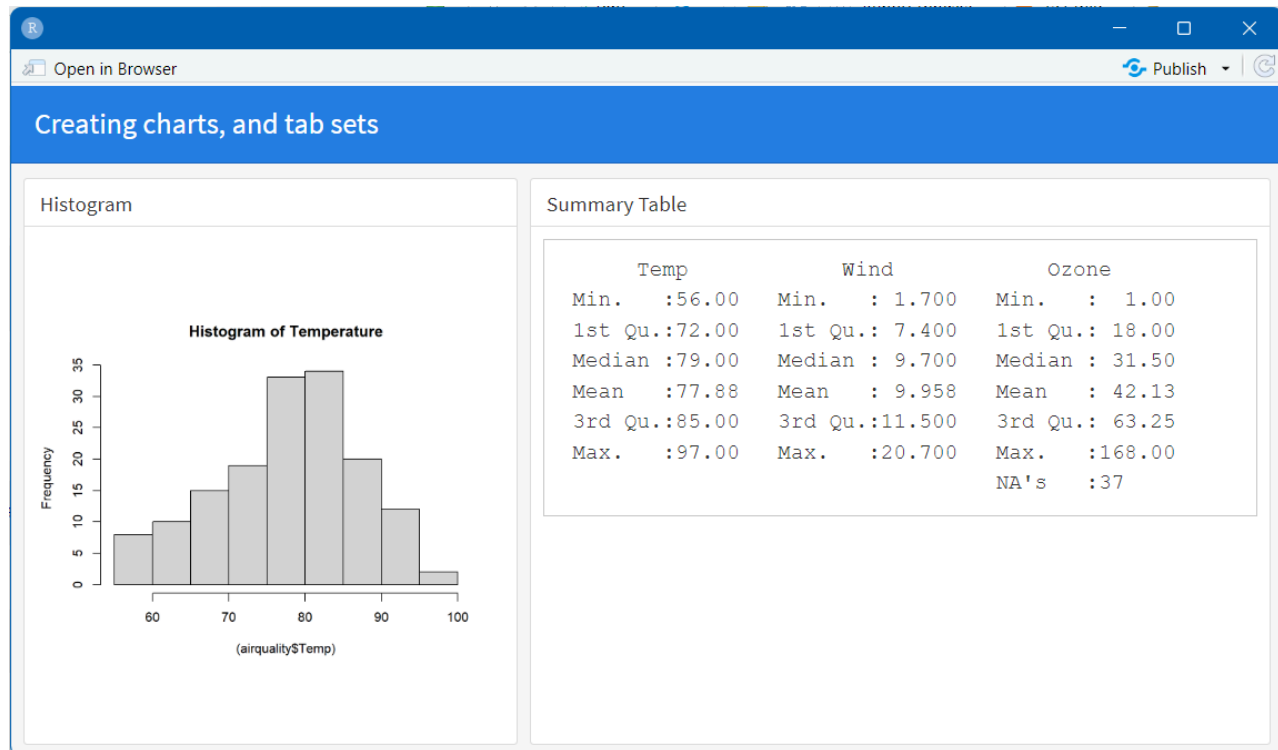


Figure 3: Output of the histogram and the table

3. Creating tab sets

- The flexibility to **create multiple tabs on a single row/column** using tabsets.
- To create one, we must specify a row/column as a tabset using the **'{.tabset}'** attribute.

A. To create a tabset, follow the steps:

Step 1: Create a dashboard with **two columns** and **column orientation**.

Step 2: Type **'{.tabset}'** beside the first column name.

Step 3: Under the First Column, add two charts named **"#Histogram"** and **"#Box Plot"**.

Step 4:

- In the code chunk of #Histogram, type **'hist((airquality\$Temp), main = "Histogram of Temperature")'**
- In the code chunk of #Box Plot, type **'boxplot(Temp ~ Month, data = airquality, main = "Boxplot of Month vs Temperature")'**

Step 5: Under the Second Column, add a chart named **"#Summary Table"**.

Step 6: Insert a code chunk and type **"summary(airquality[c("Temp","Wind","Ozone")])"**.

```

Source Visual Outline
1 ----
2 title: "Charts and Tabsets"
3 output:
4   flexdashboard::flex_dashboard:
5     orientation: column
6     vertical_layout: fill
7 runtime: shiny
8 ----
9
10 {r setup, include=FALSE}
11 library(flexdashboard)
12 library(shiny)
13
14
15 First_Column {.tabset}
16 -----
17
18 ### Histogram
19
20 {r}
21 hist((airquality$Temp), main = "Histogram of Temperature")
22
23
24 ### Box Plot
25
26 {r}
27 boxplot(Temp ~ Month, data = airquality, main = "Boxplot of Month vs Temperature")
28
29
30 Second_Column
31 -----
32
33 ### Summary Table
34
35 {r}
36 summary(airquality[c("Temp", "wind", "ozone")])
37
38

```

Figure 5: Code for creating a tab set from the two charts

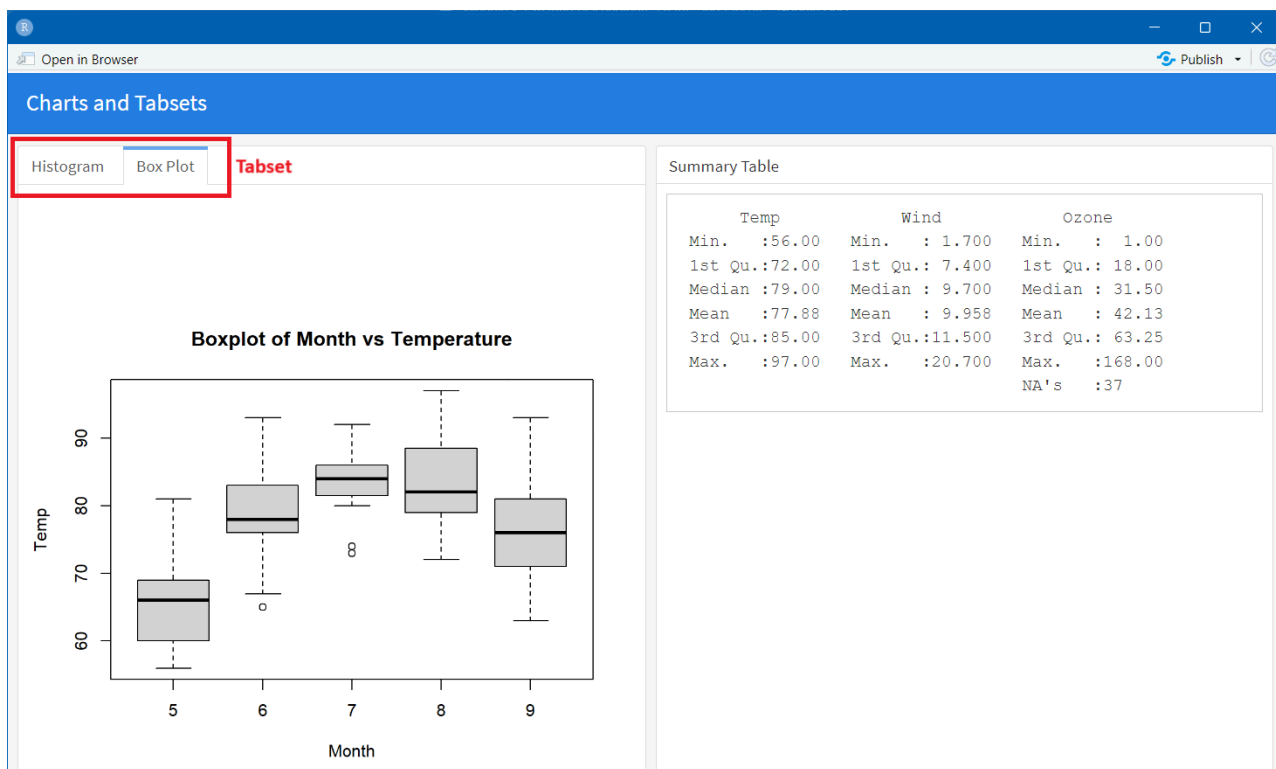


Figure 4: Creating a tab set from the two charts