

# Supporting Documentation

This document explains how to use the Shiny app “CourseProjectApp”.

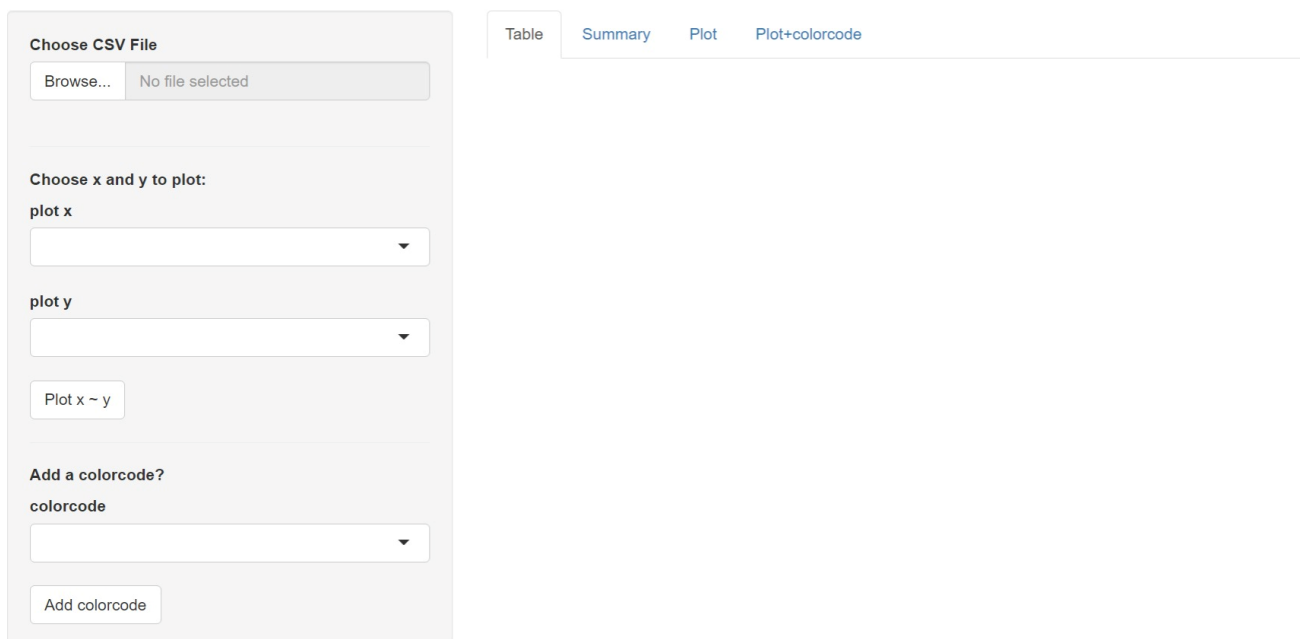
## About the App

This App help users do some primary data checking, including:

- what are the variables
- types and lengths of each variable
- plot of  $x \sim y$
- plot of  $x \sim y$  with color code (categorized?)

## App Interface

Let's check the data



The screenshot displays the user interface of the CourseProjectApp. On the left, a sidebar contains several sections: 'Choose CSV File' with a 'Browse...' button and 'No file selected' status; 'Choose x and y to plot:' with 'plot x' and 'plot y' dropdown menus; a 'Plot x ~ y' button; 'Add a colorcode?' with a 'colorcode' dropdown menu; and an 'Add colorcode' button. On the right, a horizontal tab bar shows four tabs: 'Table' (active), 'Summary', 'Plot', and 'Plot+colorcode'.

Fig 1. App Interface

## How to use the App

Step 1: upload your csv. file and check the data in "Table" and "Summary" tabs  
(red rectangular in Fig2)

Let's check the data

The screenshot displays the app's interface for uploading and checking data. On the left, a sidebar contains options for choosing a CSV file, selecting variables for plotting, and adding a colorcode. The main area shows the 'Table' and 'Summary' tabs, both highlighted with red rectangles. The 'Table' tab displays a preview of the data, and the 'Summary' tab shows a summary of the data frame.

**Choose CSV File**

Browse... testCSV\_iris.csv

Upload complete

**Choose x and y to plot:**

plot x: Sepal.Length

plot y: Sepal.Length

Plot x ~ y

**Add a colorcode?**

colorcode: Species

Add colorcode

**Table** **Summary** Plot Plot+colorcode

Show entries Search:

Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
5.1	3.5	1.4	0.2	setosa
4.9	3.0	1.4	0.2	setosa
4.7	3.2	1.3	0.2	setosa
4.6	3.1	1.5	0.2	setosa
5.0	3.6	1.4	0.2	setosa

Sepal.Length Sepal.Width Petal.Length Petal.Width Species

Showing 1 to 5 of 150 entries Previous 1 2 3 4 5 ... 30 Next

**Table** **Summary** Plot Plot+colorcode

```
'data.frame': 150 obs. of 5 variables:
 $ Sepal.Length: num 5.1 4.9 4.7 4.6 5 5.4 4.6 5 4.4 4.9 ...
 $ Sepal.Width : num 3.5 3 3.2 3.1 3.6 3.9 3.4 3.4 2.9 3.1 ...
 $ Petal.Length: num 1.4 1.4 1.3 1.5 1.4 1.7 1.4 1.5 1.4 1.5 ...
 $ Petal.Width : num 0.2 0.2 0.2 0.2 0.2 0.4 0.3 0.2 0.2 0.1 ...
 $ Species : chr "setosa" "setosa" "setosa" "setosa" ...
```

Fig2. Upload the data and do the primary check

Note1: use the example file “testCSV\_iris.csv” to try out. The data is “iris” data set in R, copy right belongs to R.

Note2: once the data set is uploaded, the “plot x” and “plot y” choices will be automatically updated as the numeric variables names in the data set, same for “colorcode” which will take “character” variables name(s) in.

Step 2: choose the variables you want to examine and plot (Fig3, red rectangular, "Plot" tab); you can also add a category color code to your plot (Fig3, green rectangular, "Plot + colorcode" tab)



Fig3. Plot the data