



GUIDEBOOK

SHINY CTR ANALYTICS: AD PLACEMENT IMPACT WITH R



INTRODUCTION



- The introduction provides an insight into the purpose and functionality of the Shiny application, emphasizing its role in analyzing Click-Through Rates (CTR).
- It clarifies the intended use and outlines the scope of the application.

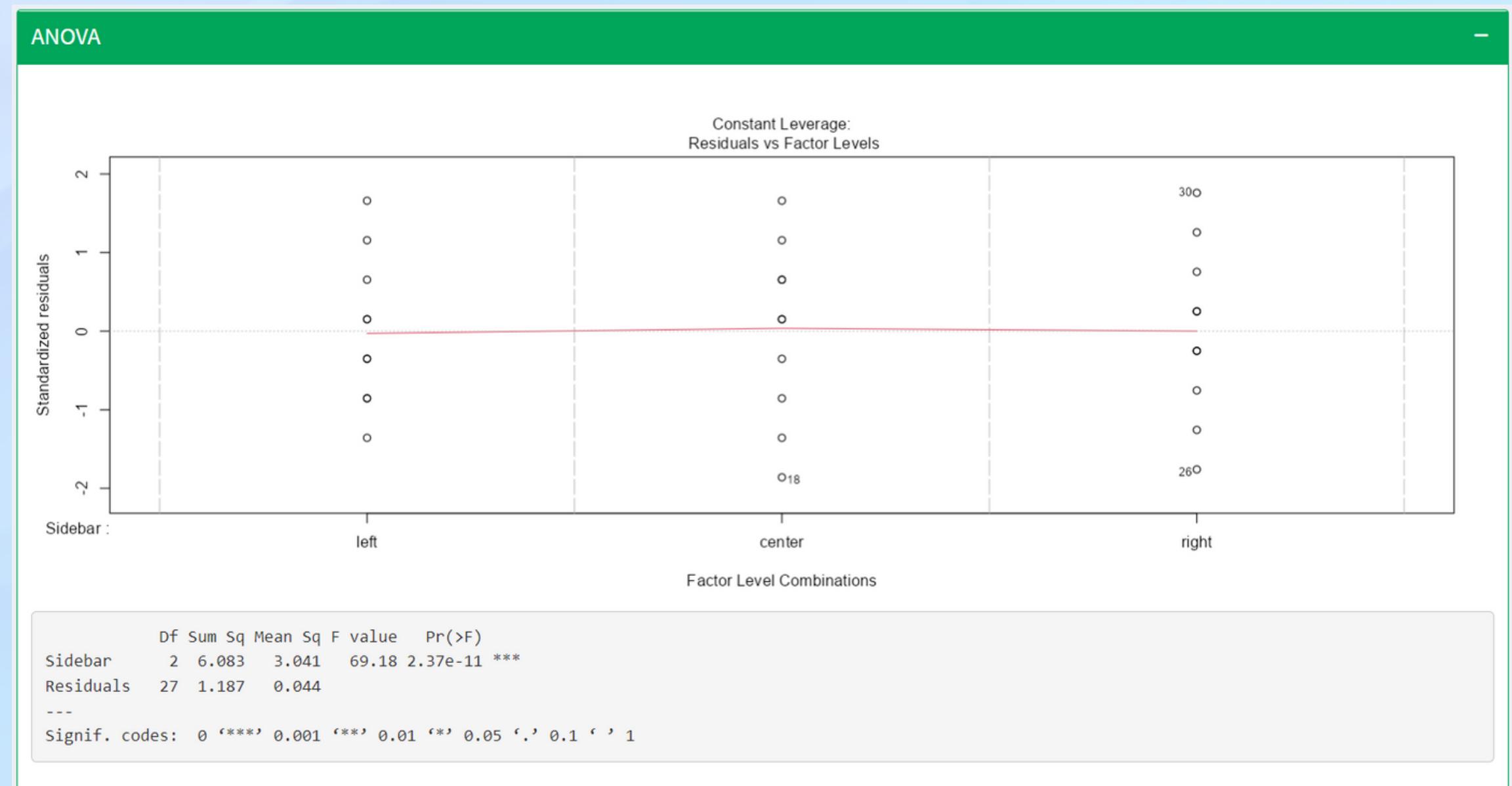
DATA INPUT

In this tab, users can view the initial dataset presented in a DataTable format, enabling easy exploration and additional functionalities like copying and exporting data are available for user convenience.

Sidebar			CTRs
1	left		2.5
2	left		2.7
3	left		2.8
4	left		2.6
5	left		3
6	left		2.4
7	left		2.9
8	left		2.5
9	left		2.6
10	left		2.7
Showing 1 to 10 of 30 entries			Previous
FALSE			1 2 3 Next

ANOVA

Users can interpret the ANOVA results through the provided plot and summary, understanding the variance in CTRs across Sidebar categories.



TUKEY

The Tukey HSD results are graphically represented, aiding users in identifying significant differences between groups.

```
HSD Test for CTRs

Mean Square Error: 0.04396296

Sidebar, means

      CTRs      std   r      se Min Max   Q25   Q50   Q75
center 3.77 0.2213594 10 0.06630457 3.4 4.1 3.625 3.80 3.900
left   2.67 0.1888562 10 0.06630457 2.4 3.0 2.525 2.65 2.775
right  3.15 0.2173067 10 0.06630457 2.8 3.5 3.025 3.15 3.275

Alpha: 0.05 ; DF Error: 27
Critical Value of Studentized Range: 3.506426

Minimun Significant Difference: 0.2324921

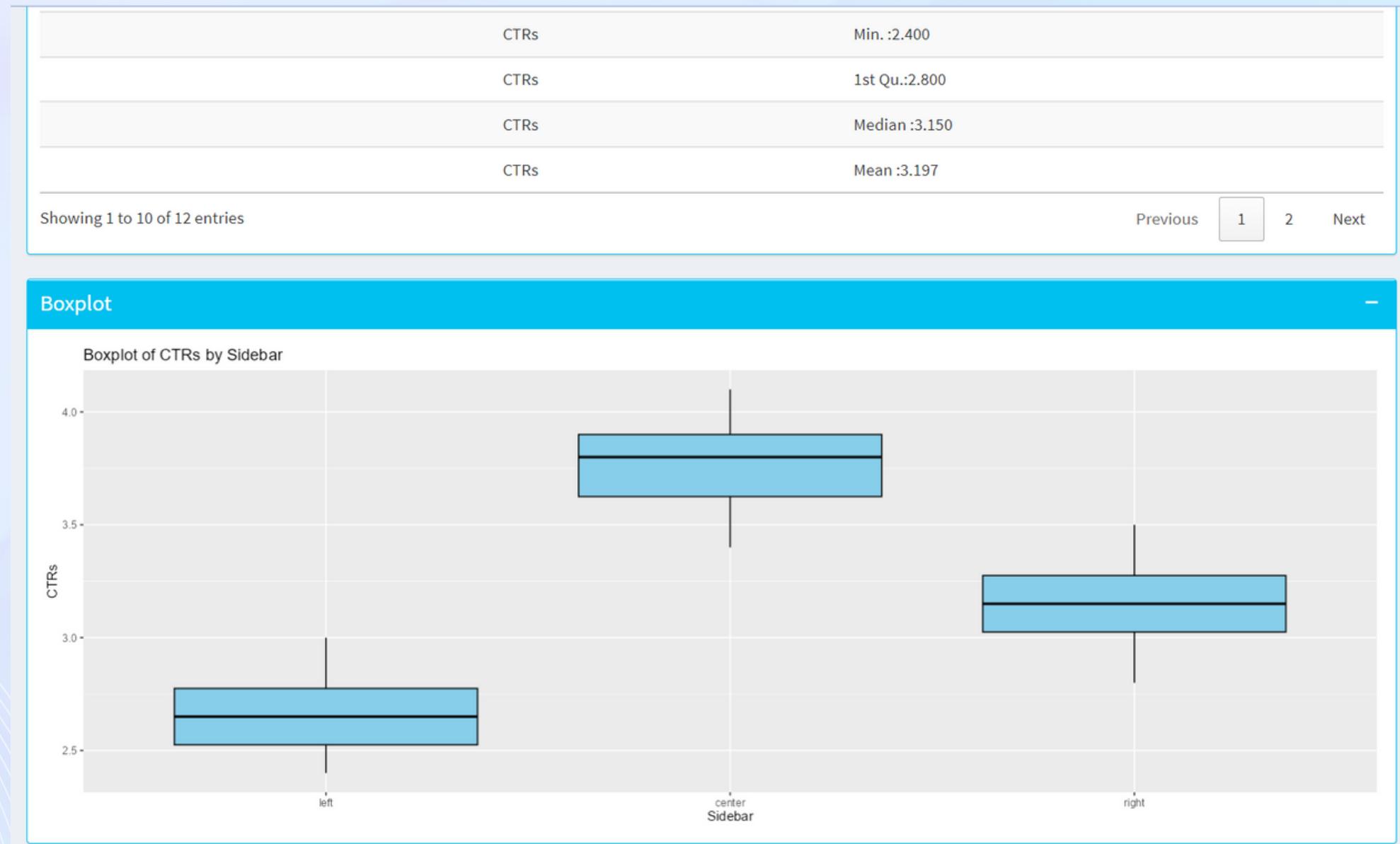
Treatments with the same letter are not significantly different.

      CTRs groups
center 3.77     a
right  3.15     b
left   2.67     c
$statistics
      MSerror Df      Mean       CV       MSD
0.04396296 27 3.196667 6.559128 0.2324921

$parameters
      test name.t ntr StudentizedRange alpha
      Tukey Sidebar 3        3.506426 0.05

$means
      CTRs      std   r      se Min Max   Q25   Q50   Q75
center 3.77 0.2213594 10 0.06630457 3.4 4.1 3.625 3.80 3.900
left   2.67 0.1888562 10 0.06630457 2.4 3.0 2.525 2.65 2.775
right  3.15 0.2173067 10 0.06630457 2.8 3.5 3.025 3.15 3.275
```

DESCRIPTIVE STATS



Descriptive statistics provide valuable insights into the characteristics of the dataset dan users can interpret the boxplot to understand the distribution of CTRs across Sidebar categories.

REGRESSION ANALYSIS

Users can use regression analysis to assess the strength and direction of the linear relationship between variables.

Call:

```
lm(formula = CTRs ~ Sidebar, data = data)
```

Residuals:

Min	1Q	Median	3Q	Max
-0.370	-0.165	0.030	0.130	0.350

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	2.67000	0.06630	40.269	< 2e-16 ***
Sidebarcenter	1.10000	0.09377	11.731	4.16e-12 ***
Sidebarright	0.48000	0.09377	5.119	2.21e-05 ***

Signif. codes:	0 ****	0.001 **	0.01 *	0.05 .
	0.1	1		

Residual standard error: 0.2097 on 27 degrees of freedom

Multiple R-squared: 0.8367, Adjusted R-squared: 0.8246

F-statistic: 69.18 on 2 and 27 DF, p-value: 2.369e-11

INPUT NEW DATA

The manual input feature allows users to dynamically extend the dataset for a more comprehensive analysis.

Manual Input

Left Value:

Center Value:

Right Value:

Submit

Sidebar	CTRs
left :10	Min. :2.400
center:10	1st Qu.:2.800
right :10	Median :3.150
	Mean :3.197
	3rd Qu.:3.575
	Max. :4.100

CONTACT

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