

# ggplot2 Package

In this Video, we are going to take a look at...

- ggplot2 package background
- Installing ggplot2 in RStudio
- Generating simple plots in RStudio using ggplot2

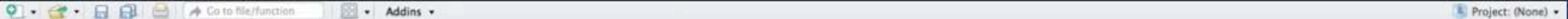
# ggplot2 package

## ggplot2 Package

- Open source plotting package based on the Grammar of Graphics
- Written by Hadley Wickham



# Installing ggplot2 package



Project: (None) ▾

```
1 #install.packages("googleAuthR")
2 #install.packages("googleAnalyticsR")
3
4
5 library("googleAuthR")
6 library("googleAnalyticsR")
7
8 ga_auth(new_user=T)
9
10 ## get your accounts
11 account_list <- ga_account_list()
12 account_list$viewId
13
14 ga_id = 154893193
15
16 #
17 temp_ga_data = google_analytics_4(ga_id, date_range = c("2017-02-22", "2017-05-22"),
18   metrics=c("sessions"), dimensions=c("date"))
19
20
```

```

Console - /Documents/RCourse/
43 2017-04-05      951
44 2017-04-06     1165
45 2017-04-07      870
46 2017-04-08     1045
47 2017-04-09     1305
48 2017-04-10     1045
49 2017-04-11      869
50 2017-04-12      936
51 2017-04-13     1135
52 2017-04-14     1204
53 2017-04-15     1100
54 2017-04-16     1135

```

The screenshot shows the RStudio interface. The top pane is the 'Environment' pane, which has tabs for 'Environment' and 'History'. The 'Environment' tab is active, showing a search bar and a 'List' button. Below this, the 'Data' section lists two objects: 'account\_list' (1 obs. of 10 variables) and 'temp\_ga\_data' (90 obs. of 2 variables). The 'Values' section shows the value of 'ga\_id' as '154893193'. The bottom pane is the 'Files' pane, which has tabs for 'Files', 'Plots', 'Packages', 'Help', and 'Viewer'. The 'Files' tab is active, showing a file explorer view of the 'RCourse' directory. It lists three files: '2.1\_WS\_Draft.pptx' (1.1 MB, modified Jul 12, 2017, 4:20 PM), '2.2\_WS\_Draft.pptx' (109.6 KB, modified Jul 12, 2017, 3:07 PM), and '2.3\_WS\_Draft.pptx' (67.4 KB, modified Jul 11, 2017, 9:46 PM). A 'Packt' watermark is visible in the bottom right corner of the Files pane.

**Environment** History

Import Dataset

Global Environment

**Data**

- account\_list 1 obs. of 10 variables
- temp\_ga\_data 90 obs. of 2 variables

**Values**

ga\_id 154893193

**Files** Plots Packages Help Viewer

New Folder Delete Rename More

Home Documents RCourse

Name	Size	Modified
2.1_WS_Draft.pptx	1.1 MB	Jul 12, 2017, 4:20 PM
2.2_WS_Draft.pptx	109.6 KB	Jul 12, 2017, 3:07 PM
2.3_WS_Draft.pptx	67.4 KB	Jul 11, 2017, 9:46 PM

Packt



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2 #install.packages("googleAnalyticsR")
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3:1 (Top Level) R Script

Console ~/Documents/RCourse/

83	2017-05-15	801
84	2017-05-16	965
85	2017-05-17	1034
86	2017-05-18	864
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> install.packages("ggplot2")

Environment History

Import Dataset

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**Values**

ga_id	154893193
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Files Plots Packages Help Viewer

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2.1_WS_Draft.pptx	1.1 MB	Jul 12, 2017, 4:20 PM
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```

(Top Level) : R Script

```

> install.packages("ggplot2")
trying URL 'http://cran.stat.ucla.edu/bin/macosx/el-capitan/contrib/3.4/ggplot2_2.2.1.tgz'
Content type 'application/x-tar' length 2792414 bytes (2.7 MB)
=====
downloaded 2.7 MB

The downloaded binary packages are in
  /var/folders/r2/gclhb__96n70xr9_034pftd80000gn/T//Rtmp02j6hG/downloaded_packages
>

```

Environment History

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7:1 (Top Level) R Script

Environment History

Import Dataset

Global Environment

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Console ~/Documents/RCourse/

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Files Plots Packages Help Viewer

New Folder Delete Rename More

Home Documents RCourse

	Name	Size	Modified
<input type="checkbox"/>	2.1_WS_Draft.pptx	1.1 MB	Jul 12, 2017, 4:20 PM
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Go to file/function

Addins

Project: (None)

Untitled1\*

Source on Save

Run

Source

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20
21 ggplot(data = temp_ga_data, aes)
22
```

20:32 (Top Level) :

Console - /Documents/RCourse/

> library("ggplot2")

> temp\_ga\_data

date sessions

1 2017-02-22 191

2 2017-02-23 200

3 2017-02-24 165

4 2017-02-25 134

5 2017-02-26 167

6 2017-02-27 150

7 2017-02-28 122

8 2017-02-29 205

aes (ggplot2)

aes\_ (ggplot2)

aes\_all (ggplot2)

aes\_auto (ggplot2)

aes\_q (ggplot2)

aes(x, y, ...)

Aesthetic mappings describe how variables in the data are mapped to visual properties (aesthetics) of geoms. Aesthetic mappings can be set in ggplot2 and in individual layers.

Press F1 for additional help

Environment

History

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Files

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Help

Viewer

New Folder

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Rename

More

Home

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100

```

19:1 (Top Level) : R Script :

```

> ggplot(data = temp_ga_data, aes(x = date, y = sessions))
>

```

EnvironmentHistory

Import Dataset

Global Environment

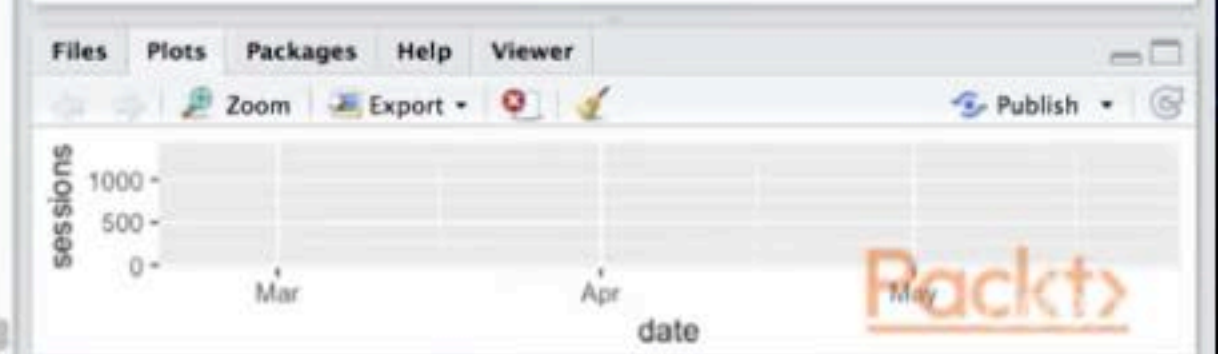
Data

account\_list 1 obs. of 10 variables

temp\_ga\_data 90 obs. of 2 variables

Values

ga\_id154893193



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library("googleAnalyticsR")
library("ggplot2")

ga_auth(new_user=T)

## get your accounts
account_list <- ga_account_list()
account_list$viewId

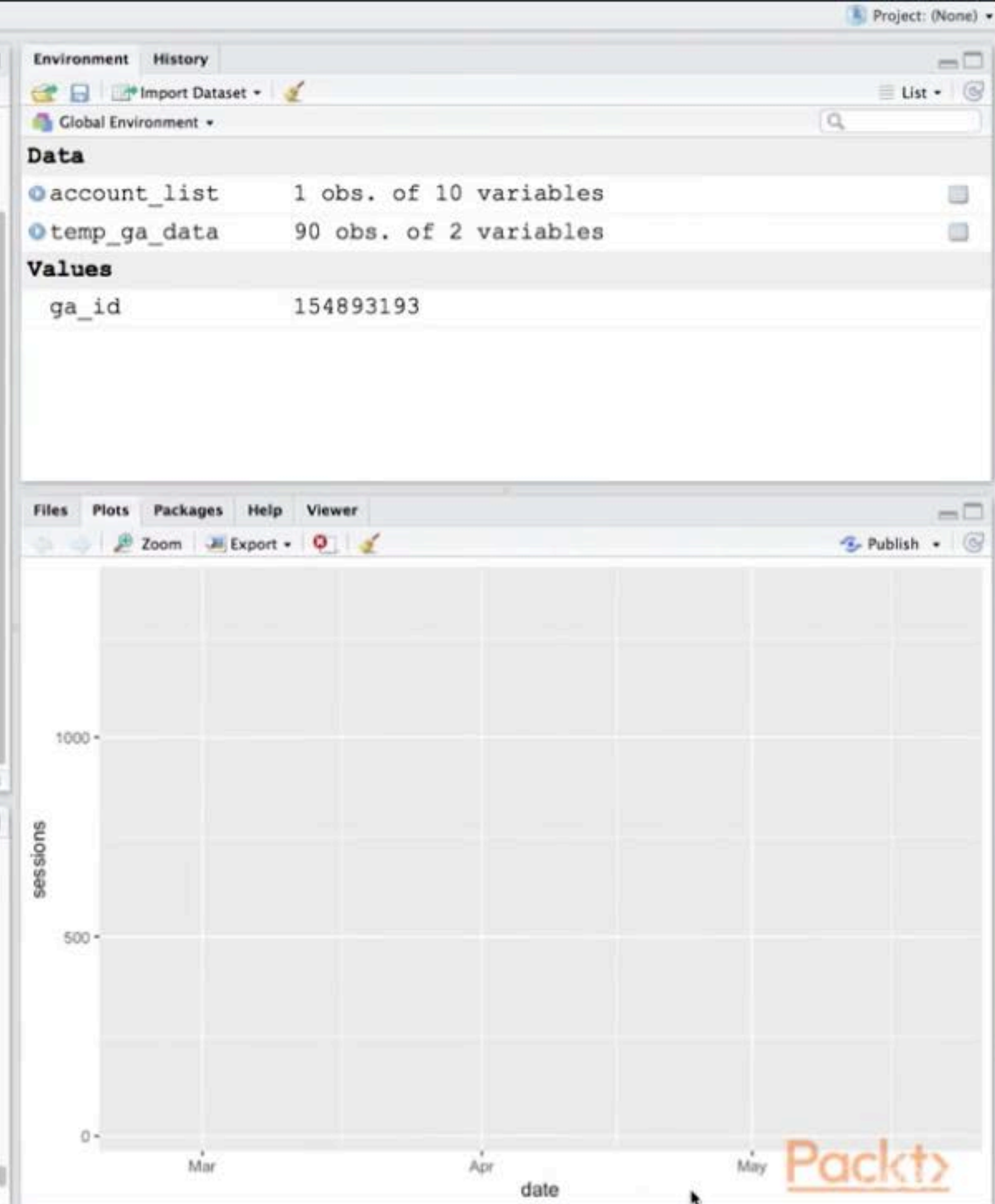
ga_id = 154893193

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"2017-05-22"), metrics=c("sessions"), dimensions=c("date"))

ggplot(data = temp_ga_data, aes(x = date, y = sessions))
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ga_id = 154893193

temp_ga_data = google_analytics_4(ga_id, date_range = c("2017-02-22",
"2017-05-22"), metrics=c("sessions"), dimensions=c("date"))

ggplot(data = temp_ga_data, aes(x = date, y = sessions)) + geom_line()
```

geom\_line(mapping = NULL, data = NULL, stat = "identity", position = "identity", na.rm = FALSE, show.legend = NA, inherit.aes = TRUE, ...)

```
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90 2017-05-22     1360

> ggplot(data = temp_ga_data, aes(x = date, y = sessions))
> ggplot(data = temp_ga_data, aes(x = date, y = sessions)) + geom_line()
>
```





```
library("googleAuthR")
library("googleAnalyticsR")
library("ggplot2")

ga_auth(new_user=T)

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account_list <- ga_account_list()
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temp_ga_data = google_analytics_4(ga_id, date_range = c("2017-02-22",
"2017-05-22"), metrics=c("sessions"), dimensions=c("date"))

ggplot(data = temp_ga_data, aes(x = date, y = sessions)) + geom_line() +
xlab("Month") + ylab("Daily Views")
```

19:1 (Top Level) : R Script

```
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86 2017-05-18      864
87 2017-05-19     1050
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> ggplot(data = temp_ga_data, aes(x = date, y = sessions))
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("Month") + ylab("Daily Views")
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```

