



BUILDING WEB APPLICATIONS IN R WITH SHINY

# Welcome to the course!

## Movie browser

Y-axis:

Audience Score

X-axis:

Critics Score

Color by:

MPAA Rating

Alpha:

0

0.5

1

0

0.1

0.2

0.3

0.4

0.5

0.6

0.7

0.8

0.9

1

Size:

0

1

2

3

4

5

☒ Show data table

Plot title

Audience Score vs. IMDB Rating



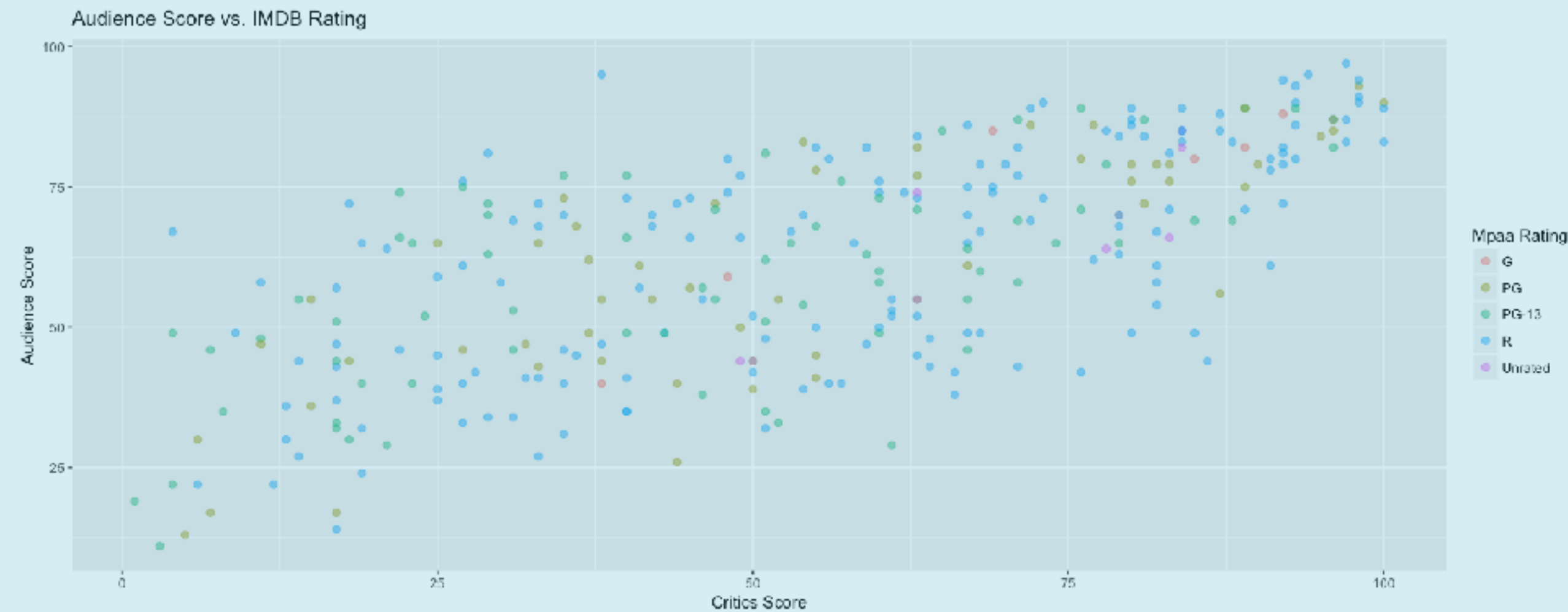
Select movie type(s):

☐ Documentary☒ Feature Film☐ TV Movie

Sample size:

300

Write CSV



There are 300 Feature Film movies in this dataset.

Show 10 entries

Search:

title	title_type	genre	runtime	mpaa_rating	studio	thtr_rel_date
The Godfather, Part II	Feature Film	Mystery & Suspense	202	R	Paramount Pictures	1974-12-20T05:00:00Z
Titanic	Feature Film	Drama	194	PG-13	Paramount Pictures	1997-12-19T05:00:00Z
Meet Joe Black	Feature Film	Drama	178	PG-13	Universal Pictures	1998-11-13T05:00:00Z
The Postman	Feature Film	Action & Adventure	177	R	Warner Home Video	1997-12-25T05:00:00Z
The English Patient	Feature Film	Drama	162	R	Miramax Films	1996-11-15T05:00:00Z
Harry Potter and the Chamber of Secrets	Feature Film	Science Fiction & Fantasy	161	PG	Warner Bros. Pictures	2002-11-15T05:00:00Z

# Background

- You are familiar with R as a programming language.
- You are familiar with the Tidyverse, specifically **ggplot2** and **dplyr**.

# Help

Shiny :: CHEAT SHEET

Basics

A Shiny app is a web page (UI) connected to a computer running a live R session (Server).

Building an App

Complete the template by adding arguments to fluidPage(), and a body to the server function.

Inputs

call edit values from the user

[www.rstudio.com/resources/cheatsheets/](http://www.rstudio.com/resources/cheatsheets/)

SHARE YOUR APP

The easiest way to share your app is to host it on shinyapps.io, a cloud based service from RStudio.

1. Create a free or professional account at <https://shinyapps.io>
2. Click the Publish icon in the RStudio IDE or run: `rsconnect::deployApp()` ("path to directory")

Build or purchase your own Shiny Server at [www.rstudio.com/products/shiny-server/](https://www.rstudio.com/products/shiny-server/)

R Studio

Shiny from R Studio

Get Started Gallery Articles Reference Deploy Help Contribute

[shiny.rstudio.com/](http://shiny.rstudio.com/)

Interact. Analyze. Communicate.

Take a fresh, interactive approach to telling your data story with Shiny. Let users interact with your data and your analysis. And do it all with R.

# Tips

- Always run the entire script, not just up to the point where you're developing code.
- Sometimes the best way to see what's wrong is to run the app and review the error.
- Watch out for commas!



# Anatomy of a Shiny app

```
library(shiny)
```

```
ui <- fluidPage()
```

## User interface

controls the layout and appearance of app

```
server <- function(input, output) {}
```

## Server function

contains instructions needed to build app

```
shinyApp(ui = ui, server = server)
```

## shinyApp()

Creates the Shiny app object

# Data



Let's build a simple movie browser app!



`movies.Rdata`

Data from IMDB and Rotten Tomatoes on random sample of 651 movies released in the US between 1970 and 2014

# Revisit

```
library(shiny)
library("movies.Rdata")
ui <- fluidPage()

server <- function(input, output) {}

shinyApp(ui = ui, server = server)
```



Data used for this app





BUILDING WEB APPLICATIONS IN R WITH SHINY

# Let's practice!