BioMarin R Training

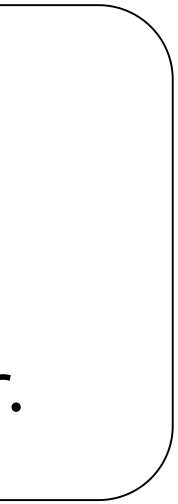
Intro to R Programming

Introduction to data types, syntax, and grammar

Other topics & packages covered:

Tibbles vs. data frames

g Roadmap



Resources

PDF slides:
https://github.com/mjfrigaard/intro-to-r-programming/blob/main/docs/

HTML slides:
https://mjfrigaard.github.io/intro-to-r-programming/Index.html#1

Exercises:
https://mjfrigaard.github.io/r-meetup-tutorials/bk00_functions-and-obje

RStudio.Cloud Project: https://rstudio.cloud/

R Workflow Best Pra

Introduction to RStudio, file naming, an

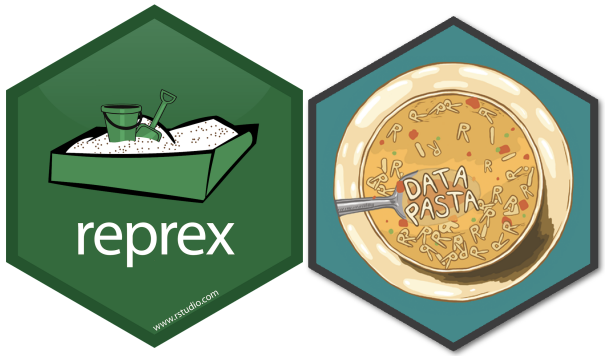
pdfs/intro-to-r-programming.pdf

ects.html

actices

d projects.

Other topics & packages covered:



Reproducible examples with repr
datapasta

Resources

PDF slides:
https://github.com/mjfrigaard/r-workflow-best-practices/blob/main/doc

HTML slides:
https://mjfrigaard.github.io/r-workflow-best-practices/Index.html#1

Exercises:
https://mjfrigaard.github.io/r-meetup-tutorials/bk01_workflow-best-pra

RStudio.Cloud Project: https://rstudio.cloud/

rex and

s/pdfs/r-workflow-slides.pdf

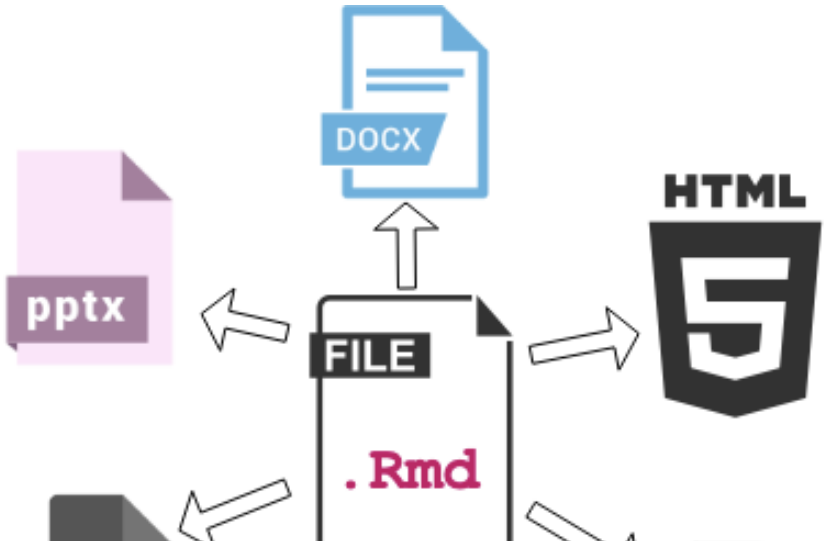
ctices.html

RStudioCloud Project: https://rstudiocloud/

R Markdown

Introduction to reproducible reports (YAML, markdo

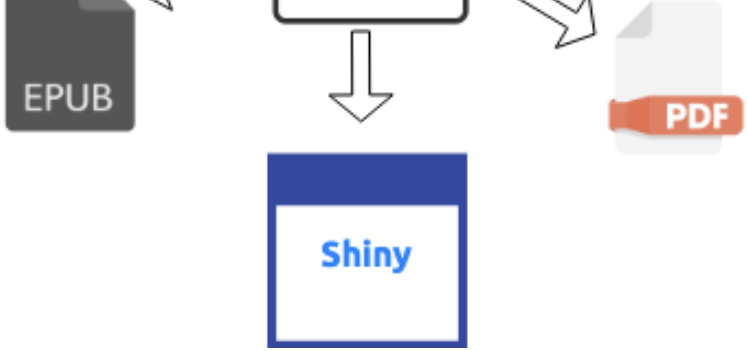
Other topics & packages covered:



Create multiple file out

wn, knitr, and pandoc).

puts with



.Rmd and knitr

Resources

PDF slides:
https://github.com/mjfrigaard/rep-res-rmarkdown/blob/master/docs/pd

HTML slides:
https://mjfrigaard.github.io/rep-res-rmarkdown/Index.html#1

Exercises:
https://mjfrigaard.github.io/r-meetup-tutorials/mk00_rmarkdown-exerci

RStudio.Cloud Project:
https://rstudio.cloud/project/1859537

fs/intro-to-rmarkdown-slides.pdf

ises.html

Introduction to Data Mani

Common data manipulation tasks, dplyr's verbs, the

Other topics & packages covered:

Write clearer code with pipe
logical string detection with

Resources

PDF slides:
https://github.com/mjfrigaard/data-manip-intro/blob/main/docs/pdfs/d

ipulation

pipe (%>%).

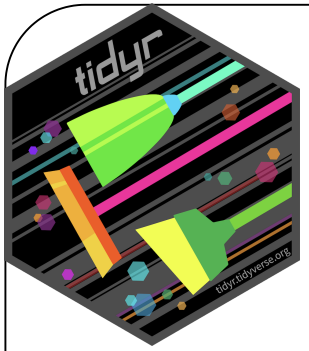
lines,
filter()

lata-manip-intro-slides.pdf

HTML slides:
https://mjfrigaard.github.io/data-manip-intro/Index.html#1

Exercises:
https://mjfrigaard.github.io/r-meetup-tutorials/dt00_data-manipulation

RStudio.Cloud Project:
https://rstudio.cloud/project/1918833



Data Transformation & Jo

Pivoting data, multiple table joins, manipulating co

Other topics & packages covered:

s.html

oins

lumns and rows.

Rename columns, reproduci
management

Resources

PDF slides:
https://github.com/mjfrigaard/data-transformations-joins/blob/main/do
slides.pdf

HTML slides:
https://mjfrigaard.github.io/data-transformations-joins/Index.html#1

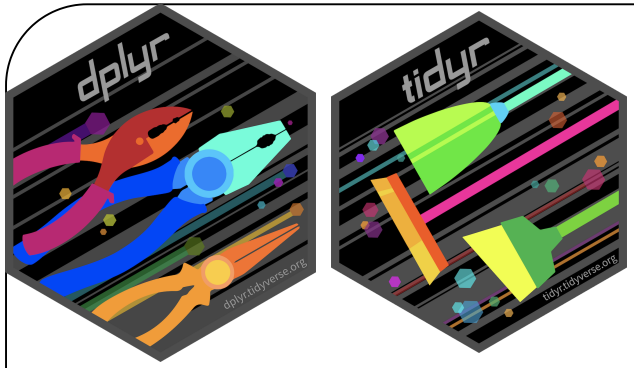
Exercises:
https://mjfrigaard.github.io/r-meetup-tutorials/dt01_data-trans-joins-ex

RStudio.Cloud Project:
https://rstudio.cloud/project/1941654

ble file

ocs/pdfs/data-transformation-joins-

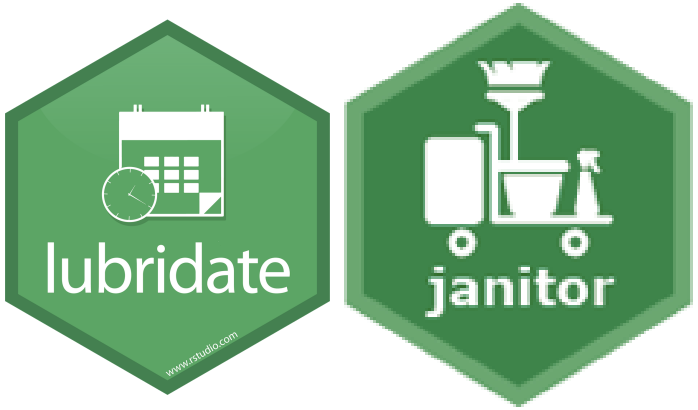
xercises.html



Advanced Data Man

Conditional mutations, create multiple c

Other topics & packages covered:



Dealing with date/times, star
column names, etc.

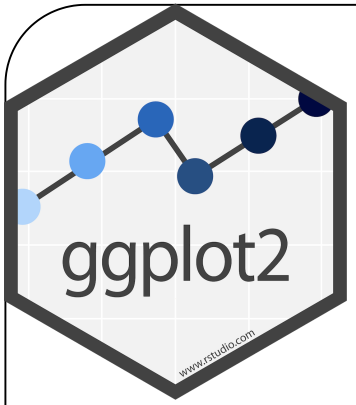
Resources

ipulations

columns at once, and missing data.

ndardizing

Exercises:
https://mjfrigaard.github.io/r-meetup-tutorials/dt02_adv-data-manip-j



Data Visualization

Introduction to the grammar of graphics, aesthetic

Other topics & packages covered:

Repel text labels, themes, etc.

oins.html

s, and themes.

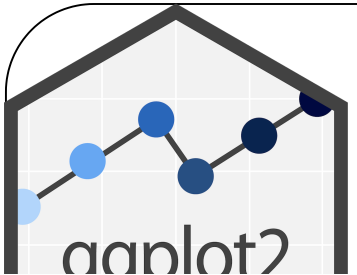
Resources

PDF slides:
https://github.com/mjfrigaard/data-viz-intro/blob/main/docs/pdfs/data

HTML slides:
https://mjfrigaard.github.io/data-viz-intro/Index.html#1

Exercises:
https://mjfrigaard.github.io/r-meetup-tutorials/gg00_intro-to-data-viz.h

RStudio.Cloud Project:
https://rstudio.cloud/project/1973650



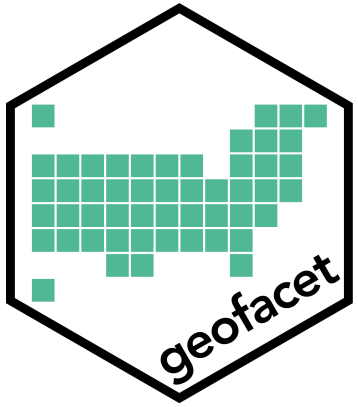
Data Visualization as Com

-viz-intro-slides.pdf

ntml

nmunication

Extending the grammar of graphics with distributi
facetting.



ggridges, advanced facetting
and geographical facets with

Resources

PDF slides:
https://github.com/mjfrigaard/data-viz-as-comm/blob/main/docs/pdfs/

HTML slides:
https://mjfrigaard.github.io/data-viz-as-comm/Index.html#1

Exercises:
https://mjfrigaard.github.io/r-meetup-tutorials/gg01_data-viz-as-comm

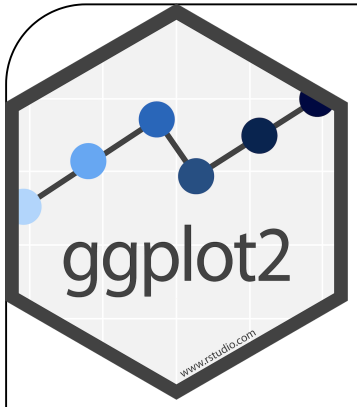
ons, annotations, and

with ggforce,
geofacet

/data-viz-as-comm-slides.pdf

n.html

RStudio.Cloud Project:
https://rstudio.cloud/project/1983257



Advanced Data Visualizat

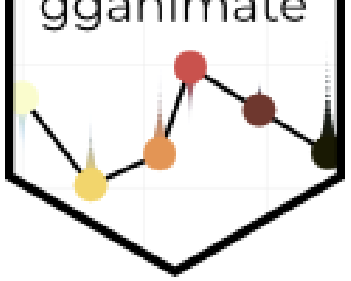
Extending ggplot2

Other topics & packages covered:

Fit text (ggtext & ggfittext), distributions (gg
& distributional), color (wesanderson & khrom
interactivity (plotly), and animations (gganim

tion

dist
na),
ate)



Resources

Exercises:
https://mjfrigaard.github.io/r-meetup-tutorials/gg02_adv-data-viz.htm

Data Dashboards

Introduction to flexdashboards.

Other topics & packages covered:

Create interactive da

nl

Create interactive da
with R Markdown and

Resources

PDF slides:
https://github.com/mjfrigaard/intro-to-dashboards/blob/main/docs/p

HTML slides:
https://mjfrigaard.github.io/intro-to-dashboards/Index.html#1

RStudio.Cloud Project:
https://rstudio.cloud/project/2000287

Shiny Apps

shboards
d shiny.

pdfs/intro-to-dashboards-slides.pdf

Introduction to shiny applications.

Other topics & packages covered:

Google trend searches (gtrendsR), d
(flexdashboard)

Resources

PDF slides:
https://github.com/mjfrigaard/intro-to-shiny/blob/main/docs/pdfs/in

HTML slides:
https://mjfrigaard.github.io/intro-to-shiny/Index.html#1

RStudio.Cloud Project:

lashboards

tro-to-shiny-slides.pdf

https://rstudio.cloud/project/2021718