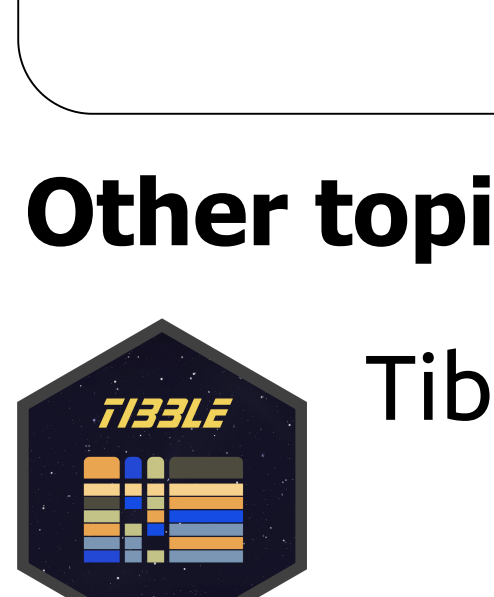


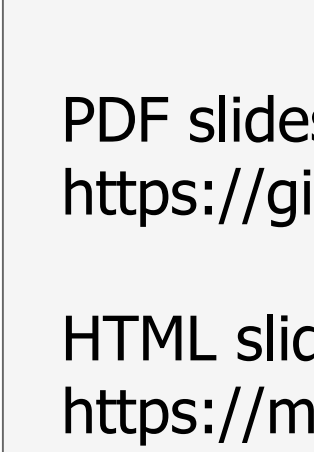
BioMarin R Training Roadmap



Intro to R Programming

Introduction to data types, syntax, and grammar.

Other topics & packages covered:



Tibbles vs. data frames

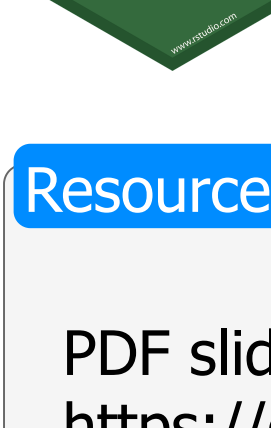
Resources

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

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

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

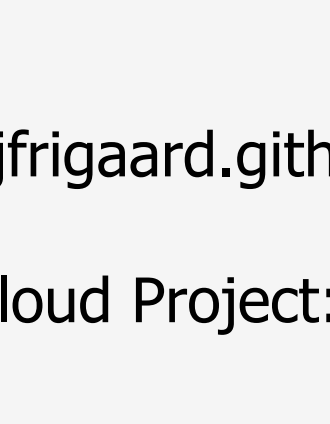
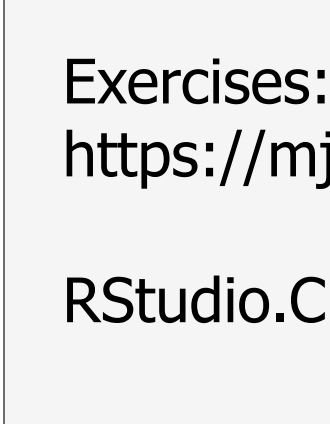
RStudio.Cloud Project: <https://rstudio.cloud/>



Studio R Workflow Best Practices

Introduction to RStudio, file naming, and projects.

Other topics & packages covered:



Reproducible examples with reprex and datapasta

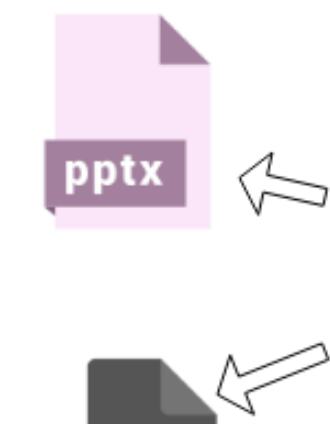
Resources

PDF slides:
<https://github.com/mjfrigaard/r-workflow-best-practices/blob/main/docs/pdfs/r-workflow-slides.pdf>

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

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

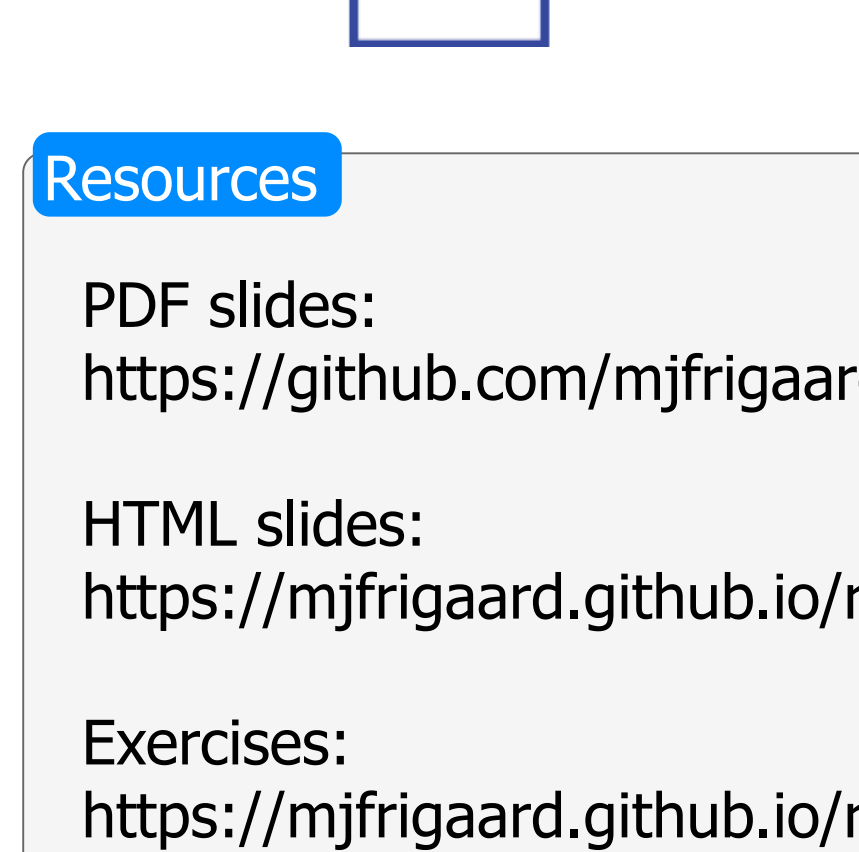
RStudio.Cloud Project: <https://rstudio.cloud/>



R Markdown

Introduction to reproducible reports (YAML, markdown, knitr, and pandoc).

Other topics & packages covered:



Create multiple file outputs with .Rmd and knitr

Resources

PDF slides:
<https://github.com/mjfrigaard/rep-res-rmarkdown/blob/master/docs/pdfs/intro-to-rmarkdown-slides.pdf>

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

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

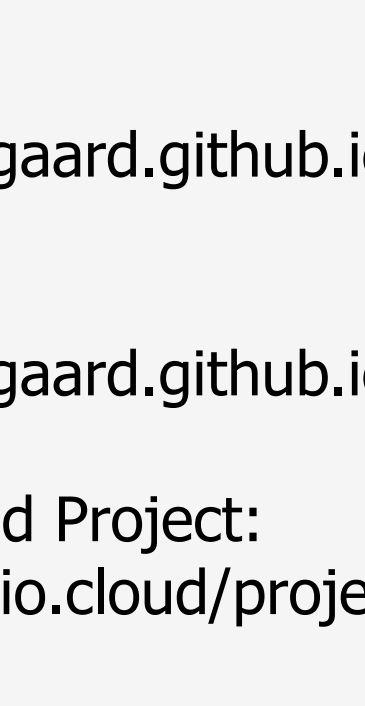
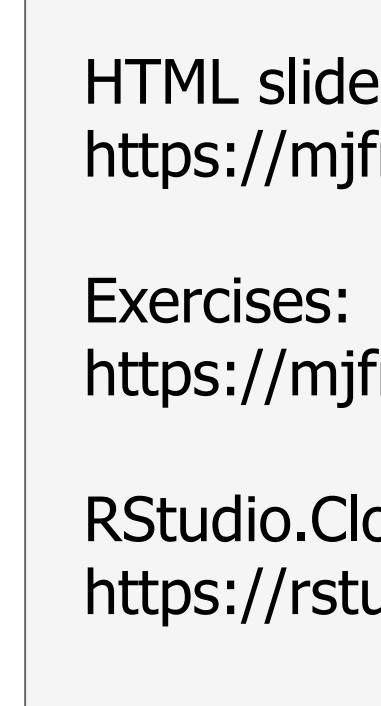
RStudio.Cloud Project:
<https://rstudio.cloud/project/1859537>



Introduction to Data Manipulation

Common data manipulation tasks, dplyr's verbs, the pipe (%>%).

Other topics & packages covered:



Write clearer code with pipelines, logical string detection with filter()

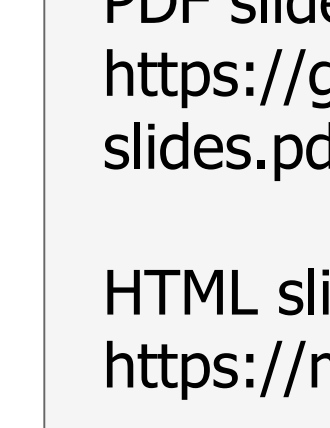
Resources

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

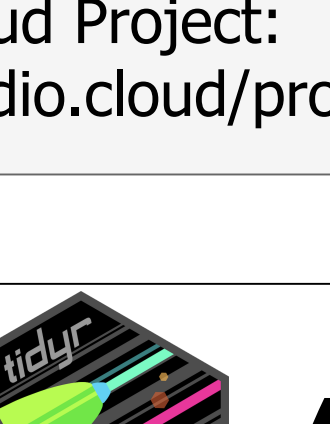
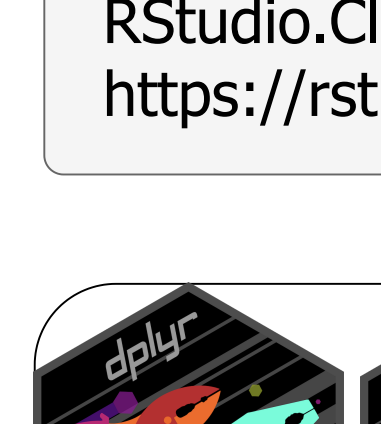
RStudio.Cloud Project:
<https://rstudio.cloud/project/1918833>



Data Transformation & Joins

Pivoting data, multiple table joins, manipulating columns and rows.

Other topics & packages covered:



Rename columns, reproducible file management

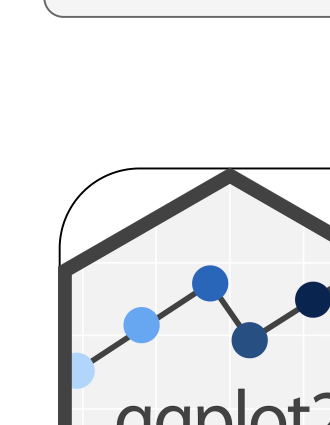
Resources

PDF slides:
<https://github.com/mjfrigaard/data-transformations-joins/blob/main/docs/pdfs/data-transformation-joins-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-exercises.html

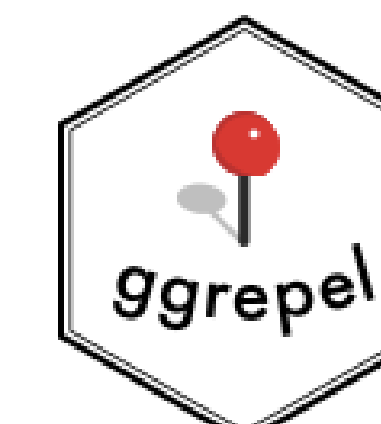
RStudio.Cloud Project:
<https://rstudio.cloud/project/1941654>



Advanced Data Manipulations

Conditional mutations, create multiple columns at once, and missing data.

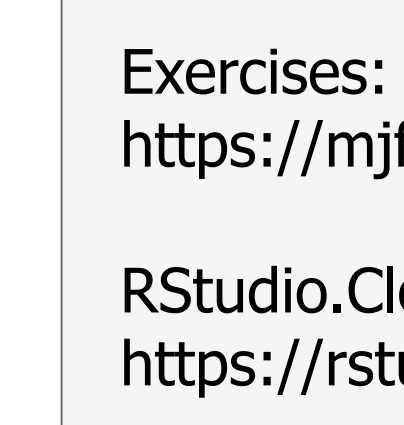
Other topics & packages covered:



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

Resources

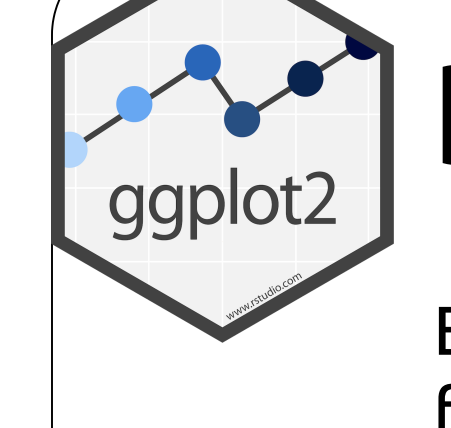
Exercises:
https://mjfrigaard.github.io/r-meetup-tutorials/dt02_adv-data-manip-joins.html



Data Visualization

Introduction to the grammar of graphics, aesthetics, and themes.

Other topics & packages covered:



Repel text labels, themes, etc.

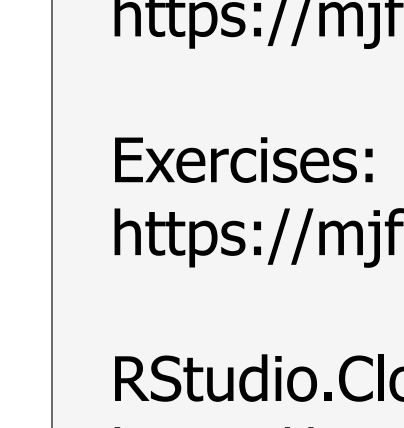
Resources

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

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

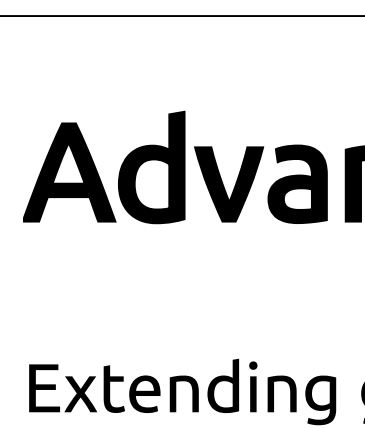
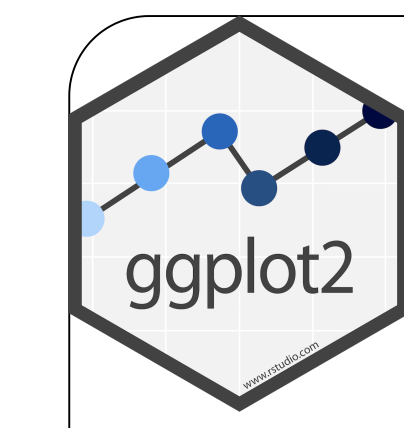
Exercises:
https://mjfrigaard.github.io/r-meetup-tutorials/gg00_intro-to-data-viz.html

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



Data Visualization as Communication

Extending the grammar of graphics with distributions, annotations, and facetting.



ggthemes, advanced facetting with ggforce, and geographical facets with geofacet

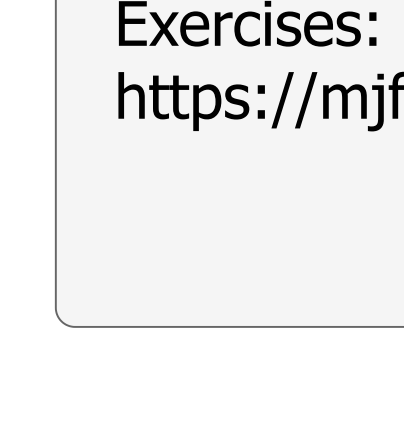
Resources

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

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.html

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

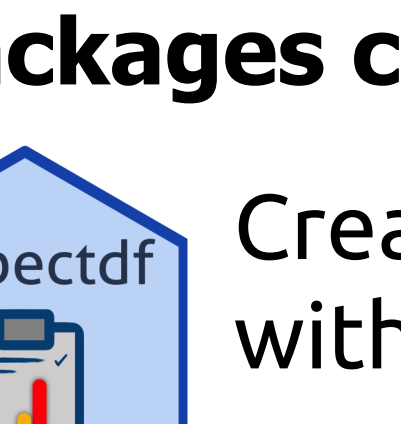


Advanced Data Visualization

Extending ggplot2

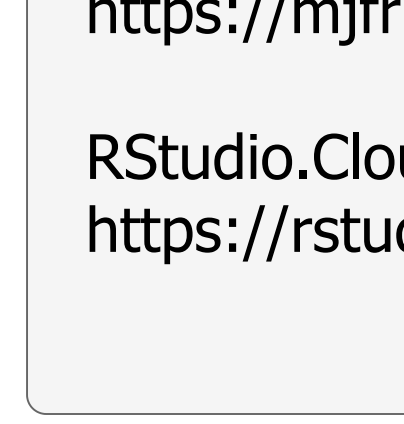
Other topics & packages covered:

Fit text (ggtext & ggfittext), distributions (ggdist & distributional), color (wesanderson & khroma), interactivity (plotly), and animations (gganimate)



Resources

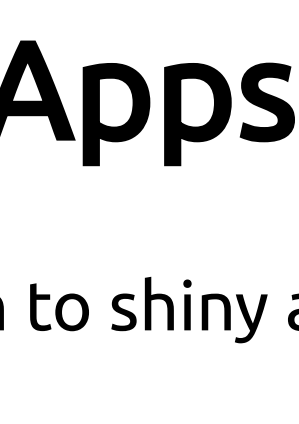
Exercises:
https://mjfrigaard.github.io/r-meetup-tutorials/gg02_adv-data-viz.html



Data Dashboards

Introduction to flexdashboards.

Other topics & packages covered:



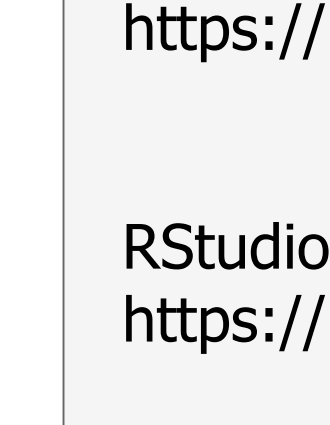
Create interactive dashboards with R Markdown and shiny.

Resources

PDF slides:
<https://github.com/mjfrigaard/intro-to-dashboards/blob/main/docs/pdfs/intro-to-dashboards-slides.pdf>

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

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



Shiny Apps

Introduction to shiny applications.

Other topics & packages covered:

Google trend searches (gtrendsR), dashboards (Flexdashboard)

Resources

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

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

RStudio.Cloud Project:
<https://rstudio.cloud/project/2021718>

