

Reporting with R Markdown



Level: Intermediate

Duration: 6 hours

Do you want to dynamically create static or interactive documents? Do you want your reports to automatically update when the data changes? Then this session is for you! R Markdown is easy to use and allows for dynamic report generation. Whether you are hoping to generate HTML, PDF or Microsoft Word like documents, or even slides for a presentation, R Markdown tailors to your needs.



Course Outline

- **R Markdown:** Creating documents using Markdown
- **{knitr}:** Running dynamic R code
- **{kableExtra} & {DT}:** Embedding tabular data into output documents
- **{bookdown}:** Writing books and long-form reports with R Markdown
- **{flexdashboard}:** Creating interactive dashboards
- **Parameterised reports:** Creating flexible reports
- **Widgets:** Exploring interactive HTML widgets

Learning Outcomes

Session 1:

By the end of session 1 participants will...

- understand the benefits of automating reporting
- be familiar with R Markdown
- be able to create a basic R Markdown document
 - output (html, pdf and word)
- have enough knowledge in R Markdown to:
 - implement code blocks
 - explore code block options
 - set YAML instructions
 - be exposed to a few different ways of adding tables to a document, including both static and dynamic tables
 - {DT} package
 - {reactable} package
- be able to embed both plots and images in documents

Session 2:

By the end of session 2 participants will...

- understand how to render a document to a {bookdown} format, useful both for websites and online books or articles
- be able to create dashboards displaying plots and tables using {flexdashboard}
- be exposed to different methods of creating presentations in R, including HTML, PDF and PowerPoint presentations
- be able to create parameterised reports that allow you to render and re-render a document with different parameters e.g. different reports for different years
- understand best practices when creating R Markdown documents

This course does not include:

- An in depth coverage of {ggplot2} and {tidyverse} to manipulate and plot data. See our [Data Visualisation with ggplot2](#) and [Data Wrangling with Tidyverse](#) course.

Prior Knowledge

It is expected that participants are already familiar with R. In particular, it assumes basic knowledge of plotting. Attendance on our [Introduction to R](#) course is more than sufficient in providing you with the prerequisite knowledge required for this course!

Attendee Feedback

- "The instructor was certainly standout, exceptionally knowledgeable and eloquent in his delivery."
- "The tutor was able to answer and personalise the content relating to our questions/needs"

Contact

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