

Hands-On Activity: Using R Markdown templates

TOTAL POINTS 2

1.



Activity overview

In previous activities, you used Rmd files to complete analyses and even created and exported your own. In this activity, you'll learn how to access and use customized R Markdown templates included in R packages.

Templates allow you to use customized documents and there are lots of R packages that include custom templates for a variety of purposes. For example, there are templates for academic journal articles, for interactive presentations, or for vignettes summarizing the contents of R packages.

By the end of this activity, you will be able to adapt pre-existing templates to the needs of your projects. This will enable you to save time and energy while you set up an Rmd file and allow you to focus on your analysis.

Example template in RStudio

You're already familiar with a template in R Markdown from earlier videos and activities. When you create a new R Markdown document from the RStudio menu (**File -> New File -> R Markdown**), a default example document appears in the RStudio source editor:

```
1
2 title: "Untitled"
3 output: html_document
4 ---
5
6 ```{r setup, include=FALSE}
7 knitr::opts_chunk$set(echo = TRUE)
8 ```
9
10 ## R Markdown
11
12 This is an R Markdown document. Markdown is a simple formatting syntax
13 for authoring HTML, PDF, and MS Word documents. For more details on using
14 R Markdown see <http://rmarkdown.rstudio.com>.
15
16 When you click the Knit button a document will be generated that
17 includes both content as well as the output of any embedded R code chunks
18 within the document. You can embed an R code chunk like this:
19
20 ```{r cars}
21 summary(cars)
22 ```
```

Many customized templates in R packages have a similar structure that includes a YAML header, code chunks, and text headers.

R packages with templates

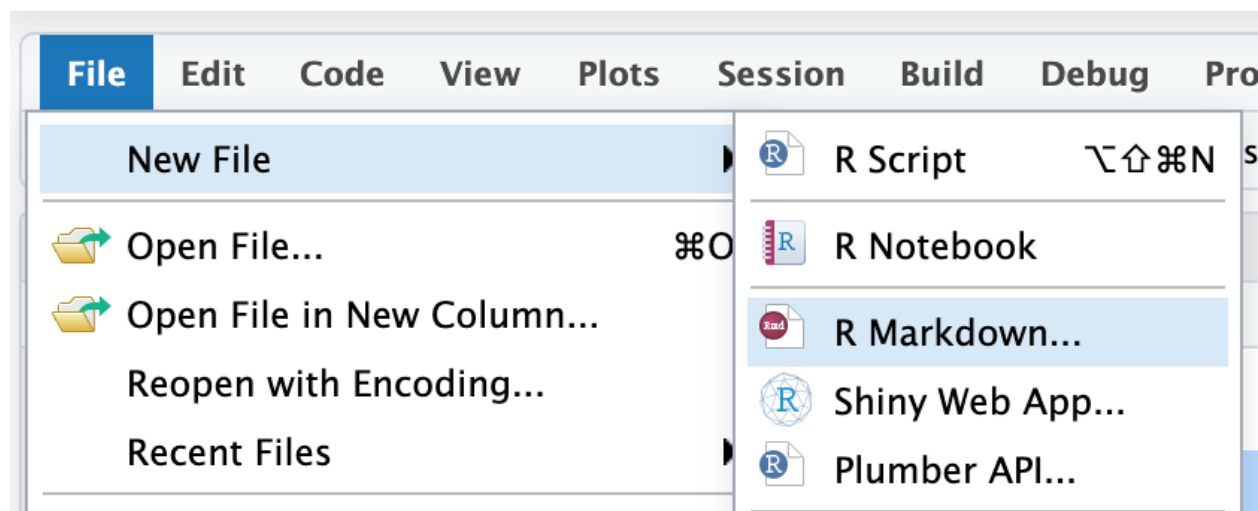
Some popular packages with templates for R Markdown include the following:

- The **vitae** package contains templates for creating and maintaining a résumé or curriculum vitae (CV)
- The **rticles** package provides templates for various journals and publishers
- The **learnr** package makes it easy to turn any R Markdown document into an interactive tutorial
- The **bookdown** package facilitates writing books and long-form articles
- The **flexdashboard** package lets you publish a group of related data visualizations as a dashboard

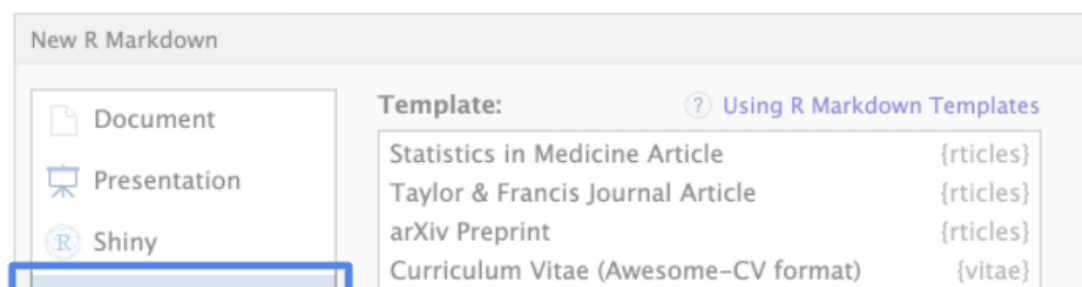
Access the CV template in RStudio

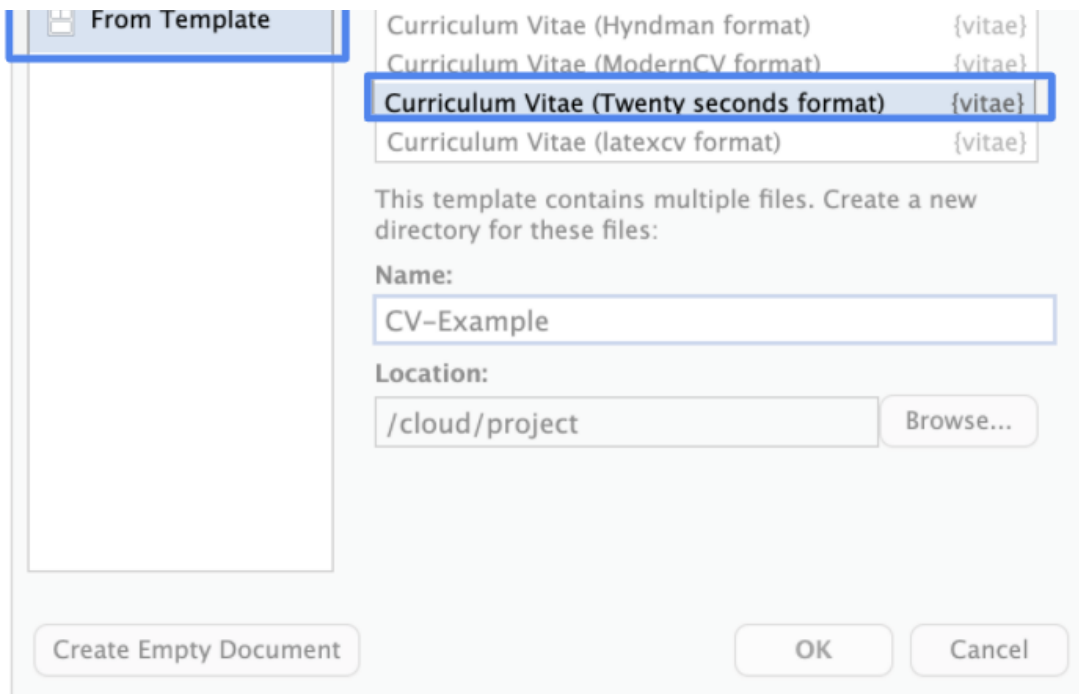
To examine the CV template included in the “vitae” package, follow these steps:

1. First, log in to [RStudio](#).
2. In the console, type `install.packages("vitae")` to install the vitae package.
3. Type `library(vitae)` to load the package.
4. You can access available templates in the R Markdown dialog box that appears when you create a new file. To create a new file in R Markdown, click **File > New File > R Markdown**.



5. From the R Markdown dialog box, click **From Template** to access a list of R Markdown templates provided by all installed packages.



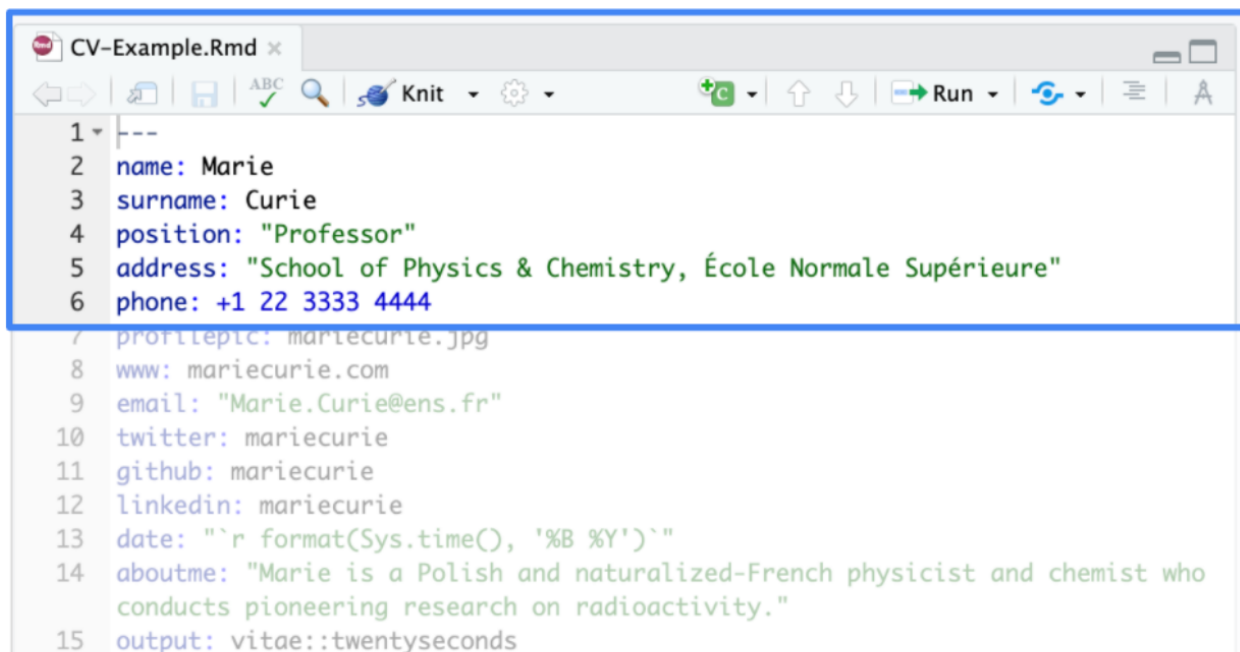


In the viewer, you may notice some template options from the vitae package: Curriculum Vitae (Awesome-CV format), Curriculum Vitae (Hyndman format), Curriculum Vitae (ModernCV format), etc. These are different types of CV templates.

6. Scroll down and click **Curriculum Vitae (Twenty seconds format)**.
7. Add a name for the new file directory that will contain the files bundled in the template, such as "CV-Example."
8. Finally, click **OK**.

Convert the template to PDF format

The template will appear in the source editor pane. It contains a YAML header, code chunks, and text headers, just like the default example document that appears when you create a new R Markdown document. The example CV uses the scientist Marie Curie, the first woman to win a Nobel Prize (and the first person to win two Nobel Prizes). The YAML header contains entries for general information, such as name, address, phone number, and more.



```
16 ^ ---
17
1:1 # Title R Markdown
```

If you scroll down, you'll find header text that introduces separate sections for topics like personal information:

```
CV-Example.Rmd x
Knit Run
22
23 # Some stuff about me
24
25 * I poisoned myself doing research.
26 * I was the first woman to win a Nobel prize
27 * I was the first person and only woman to win a Nobel prize in two different sciences.
28
29 # Education
30
31 {r}
32 library(tibble)
33 tribble(
34   ~ Degree, ~ Year, ~ Institution, ~ Where,
35   "Informal studies", "1889-91", "Flying University", "Warsaw, Poland",
36   "Master of Physics", "1893", "Sorbonne Université", "Paris, France",
37   "Master of Mathematics", "1894", "Sorbonne Université", "Paris, France"
38 ) %>%
39   detailed_entries(Degree, Year, Institution, Where)
40 ```
41
1:1 # Title R Markdown
```

To display the output format of the template, click **Knit** to render the file. You don't need to open the dropdown menu to select a format, as this template defaults to a pdf.


Note: If your browser blocks pop-ups and returns an error, make sure to click **Try Again**.

This will result in a pdf that displays the custom template for the CV:

RStudio: View PDF

b0a1aa03edc343f7844ebaefd609df30.app.rstudio.cloud/pdf_js/web/viewer.html?file=

Page: 1 of 1 Automatic Zoom



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Some stuff about me

- I poisoned myself doing research.
- I was the first woman to win a Nobel prize
- I was the first person and only woman to win a Nobel prize in two different sciences.

Education

1889-91	Informal studies Warsaw, Poland	Flying University
1893	Master of Physics Paris, France	Sorbonne Université
1894	Master of Mathematics Paris, France	Sorbonne Université

Nobel Prizes

1903	Nobel Prize in Physics. Awarded for her work on radioactivity with Pierre Curie and Henri Becquerel
1911	Nobel Prize in Chemistry. Awarded for the discovery of radium and polonium

Publications

1. O'Hara-Wild, M., & Hyndman, R. (2021). *Vitae: Curriculum vitae for r*



This pdf can be found and downloaded from the folder in the Files tab of the lower-right console.

The information in the YAML Header appears on the left side, and the information in the various sections appears on the right side.

You can replace these details with your own information to adapt the template for your own needs.