

5. Embed Code Use knitr syntax to embed R code into your report. R will run the code and include the results when you render your report.

inline code

Surround code with back ticks and `r`.
R replaces inline code with its results.

```
Two plus two  
equals `r 2 + 2`.
```

Two plus two
equals 4.

code chunks

Start a chunk with ````{r}`.
End a chunk with `````.

```
Here's some code  
```{r}  
dim(iris)
```
```

Here's some code

```
dim(iris)
```

```
## [1] 150 5
```

display options

Use knitr options to style the output of a chunk.
Place options in brackets above the chunk.

```
Here's some code  
```{r eval=FALSE}  
dim(iris)
```
```

Here's some code

```
dim(iris)
```

```
Here's some code  
```{r echo=FALSE}  
dim(iris)
```
```

Here's some code

```
## [1] 150 5
```

| option | default | effect |
|------------|----------|---|
| eval | TRUE | Whether to evaluate the code and include its results |
| echo | TRUE | Whether to display code along with its results |
| warning | TRUE | Whether to display warnings |
| error | FALSE | Whether to display errors |
| message | TRUE | Whether to display messages |
| tidy | FALSE | Whether to reformat code in a tidy way when displaying it |
| results | "markup" | "markup", "asis", "hold", or "hide" |
| cache | FALSE | Whether to cache results for future renders |
| comment | "##" | Comment character to preface results with |
| fig.width | 7 | Width in inches for plots created in chunk |
| fig.height | 7 | Height in inches for plots created in chunk |

For more details visit yihui.name/knitr/

6. Render Use your .Rmd file as a blueprint to build a finished report.

Render your report in one of two ways

1. Run `rmarkdown::render("<file path>")`
2. Click the **knit HTML** button at the top of the RStudio scripts pane



When you render, R will

- execute each embedded code chunk and insert the results into your report
- build a new version of your report in the output file type
- open a preview of the output file in the viewer pane
- save the output file in your working directory

7. Interactive Docs Turn your report into an interactive Shiny document in 3 steps

1 Add **runtime: shiny** to the YAML header

```
---  
title: "Line graph"  
output: html_document  
runtime: shiny  
---
```

2 In the code chunks, add Shiny **input** functions to embed widgets. Add Shiny **render** functions to embed reactive output

```
---  
title: "Line graph"  
output: html_document  
runtime: shiny  
---  
  
Choose a time series:  
```{r echo = FALSE}  
selectInput("data", "",
 c("co2", "lh"))
```  
  
See a plot:  
```{r echo = FALSE}  
renderPlot({
 d <- get(input$data)
 plot(d)
})
```

**3** Render with **rmarkdown::run** or click **Run Document** in RStudio



\* Note: your report will be a Shiny app, which means you must choose an html output format, like **html\_document** (for an interactive report) or **ioslides\_presentation** (for an interactive slideshow).

**8. Publish** Share your report where users can visit it online

### Rpubs.com

Share non-interactive documents on RStudio's free R Markdown publishing site  
[www.rpubs.com](http://www.rpubs.com)

### ShinyApps.io

Host an interactive document on RStudio's server. Free and paid options  
[www.shinyapps.io](http://www.shinyapps.io)

Click the "Publish" button in the RStudio preview window to publish to [rpubs.com](http://rpubs.com) with one click.



**9. Learn More**

Documentation and examples - [rmarkdown.rstudio.com](http://rmarkdown.rstudio.com)

Further Articles - [shiny.rstudio.com/articles](http://shiny.rstudio.com/articles)

🌐 - [blog.rstudio.com](http://blog.rstudio.com)

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