

04-PDF

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Install the PDF engine

To compile PDF files (presentations or documents), you need an installation of \LaTeX

Easy mode

TinyTex

It's convenient because it is easy to use, but it does not offer all the functionalities of \LaTeX

Pro mode

MikTex

It's a pain in the neck but it's convenient in the long run

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For this course, we can use TinyTex

Basics commands of \LaTeX might work in quarto as well (when compiled in PDF)

Quarto allows for using \LaTeX without knowing how it works (i.e., by using the same tags used for html files)

PDFs do not offer interactivity, but they do look professional

Importantly, PDFs are stable

YAML & Basics

```
---
```

```
title: "I can use LaTeX"
```

```
author: "Jane Doe"
```

```
format: beamer
```

```
---
```

```
## New Slide
```

- First element
- Second element

```
## Another slide
```

```
Some text in my slide! Yay!
```



```
---  
[...]  
format:  
  beamer:  
    slide-level: 2  
---  
  
# This create a section page  
  
## This create a slide  
  
- First element  
- Second element  
  
# New section
```

Beamer

Themes

```
[...]
```

```
format:
```

```
  beamer:
```

```
    slide-level: 3
```

```
    theme: Montpelier
```

```
    colortheme: dove
```

Gallery of beamer themes & colortheme

header-includes:

header-includes:

header-includes:

Further customization through pure \LaTeX :

[...]

header-includes:

- `\usepackage{graphicx}`
- `\usepackage[english]{babel}`
- `\usepackage{xcolor}`
- `\AtBeginDocument{\author[Ottavia M. Epifania]{Ottavia M. Epifania \\\ Univ`
- `\AtBeginDocument{\institute[] {ARCA Summer School} }`
- `\setbeamertemplate{logo}{\includegraphics[width=0.7cm]{img/freepalestine.`

Layout & font

Columns

The same code seen so far:

```
:::: {.columns}
```

```
::: {.column width="40%"}  
contents...
```

```
:::
```

```
::: {.column width="60%"}  
contents...
```

```
:::
```

```
::::
```


Text size

`\Large` Large

Large

`\large` large

large

`\normalsize` normal

normal

`\small` small

small

`\footnotesize` footnotesize

footnotesize

`\scriptsize` script

script

`\tiny` very tiny

very tiny

Code

Code Chunk

same as before! Of course it cannot be interactive.

```
```{r}  
#| eval: true
3*2
```
```

```
[1] 6
```



```
library(tidyverse)
mtcars %>%
  ggplot( aes(mpg, hp, size = gear)) +
  geom_point() +
  geom_smooth(method = "lm")
```

①

②

③

④

- ① Do something
- ② Do something else
- ③ And else
- ④ Whatever

In the code: # <1>, # <2> etc

In the YAML

```
[...]
code-annotations: below
```

Tables

Table 1 is a table

Table 1: This is a table!

| | mpg | cyl | disp |
|---------------|------|-----|------|
| Mazda RX4 | 21.0 | 6 | 160 |
| Mazda RX4 Wag | 21.0 | 6 | 160 |
| Datsun 710 | 22.8 | 4 | 108 |

@tbl-mtcars1 is a table

Table 2: This is a table!

```
1  ```{r}
2  #| eval: false
3  #| label: tbl-mtcars1
4  #| tbl-cap: "This is a table!"
5  #| code-line-numbers: "|3|4|"
6
7  library(kableExtra)
8  kable(mtcars[1:3,1:3], booktabs = TRUE)    %>%
9    kable_styling(latex_options = "hold_position")
10  ```
```


External Figures

There's a peacock in Figure 1

```
```${r}  
#| out-width: 70%
#| fig-align: center
#| fig-cap: "A peacock"
#| label: fig-pea

knitr::include_graphics("img/peacock.png")
```
```



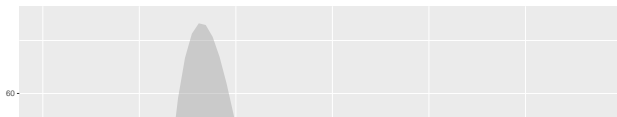
There's a peacock in @fig-pea1

```
```{r}
#| eval: false
#| out-width: 70%
#| fig-align: center
#| fig-cap: "A peacock"
#| label: fig-pea1

knitr::include_graphics("img/peacock.png")
```
```


A kickass plot in Figure 2

```
```{r}
#| out-width: 70%
#| fig-align: center
#| fig-cap: "What a plot"
#| label: fig-plot
#|
ggplot(mtcars, aes(hp, mpg, color = factor(am))) +
 geom_point() +
 geom_smooth(formula = y ~ x, method = "loess") +
 theme(legend.position = 'bottom')
```
```



A kickass plot in @fig-plot1

```
` `{r}
#| eval: false
#| out-width: 70%
#| fig-align: center
#| fig-cap: "What a plot"
#| label: fig-plot1
#|
ggplot(mtcars, aes(hp, mpg, color = factor(am))) +
  geom_point() +
  geom_smooth(formula = y ~ x, method = "loess") +
  theme(legend.position = 'bottom')
` }
```