RMarkdown Template

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Rmarkdown is awesome

It make take a bit more time, but the flexibility that Rmarkdown gives you (and the aesthetics 😍) is unbeatable[1]. This file is meant to act as a template and it includes some basic comments (both here and in the accompanying .css file), so it can be easily customized.

Don't dispare! You might start like this:

… But you'll end up like this:

[1] If you want to learn how to use emojis on your Rmarkdown files, go to https://github.com/hadley/emo

Pagedown FTW

We are going to be using the package `pagedown`[2]. This is because it's very versatile for transforming documents that need to be printed (or exported into pdf) and also working on HTML. If you ever want to transition into making presentations in Rmarkdown (with `Xaringan`, of course), this will be an easy step. I also find css more manageable than the templates created for $\LaTeX$.

.css files are your best friend

I've included a `style.css` file that should be included in the same folder that your Rmarkdown file (for simplicity, I haven't included a path). There, you can make all aesthetic changes for your

[2] Go to https://rstudio.github.io/pagedown/ to read all about it!

document (in css). The advantage is that you can just copy that file (or create new ones) for future Rmarkdown templates, and it’s great!

Let's see some examples

How $\LaTeX$ works

Well, it works pretty much the same as $\LaTeX$. Include inline equations like: $y_i = \beta_0 + \beta_1 \cdot x_i + \varepsilon_i$, or multiple line equations:

$$\begin{aligned} y_i =& \beta_0 + \beta_1 x_{i1} + \beta_2 x_{i2} + \beta_3 x_{i3} + \\ & \beta_4 x_{i4} + \ldots + \varepsilon_i \end{aligned}$$

Let's code

We can write some simple code, if we want to show it (*Tip: Always include `message=FALSE` and `warning=FALSE` so you don't get that extra stuff when you run the code*):

```
data(cars)
```

```
lm(speed ~ dist, data = cars)
```

```
##
## Call:
## lm(formula = speed ~ dist, data = cars)
##
## Coefficients:
## (Intercept)         dist
##      8.2839       0.1656
```

Meh, but that output looks ugly. Can we make it prettier? Let's try `stargazer` (you will need to include the `results='asis'` argument).

Regression of Speed on Distance

	Dependent variable:
	speed
	My Model
dist	0.166***
	(0.017)
Constant	8.284***
	(0.874)
Observations	50
R^2	0.651
Adjusted R^2	0.644
Residual Std. Error	3.156 (df = 48)
F Statistic	89.567*** (df = 1; 48)
Note:	*p<0.1; **p<0.05;** p<0.01

Check out the different arguments that you might have, and play around.

What about a `reactable` table? (This are particularly great for HTML, because they are interactive!)

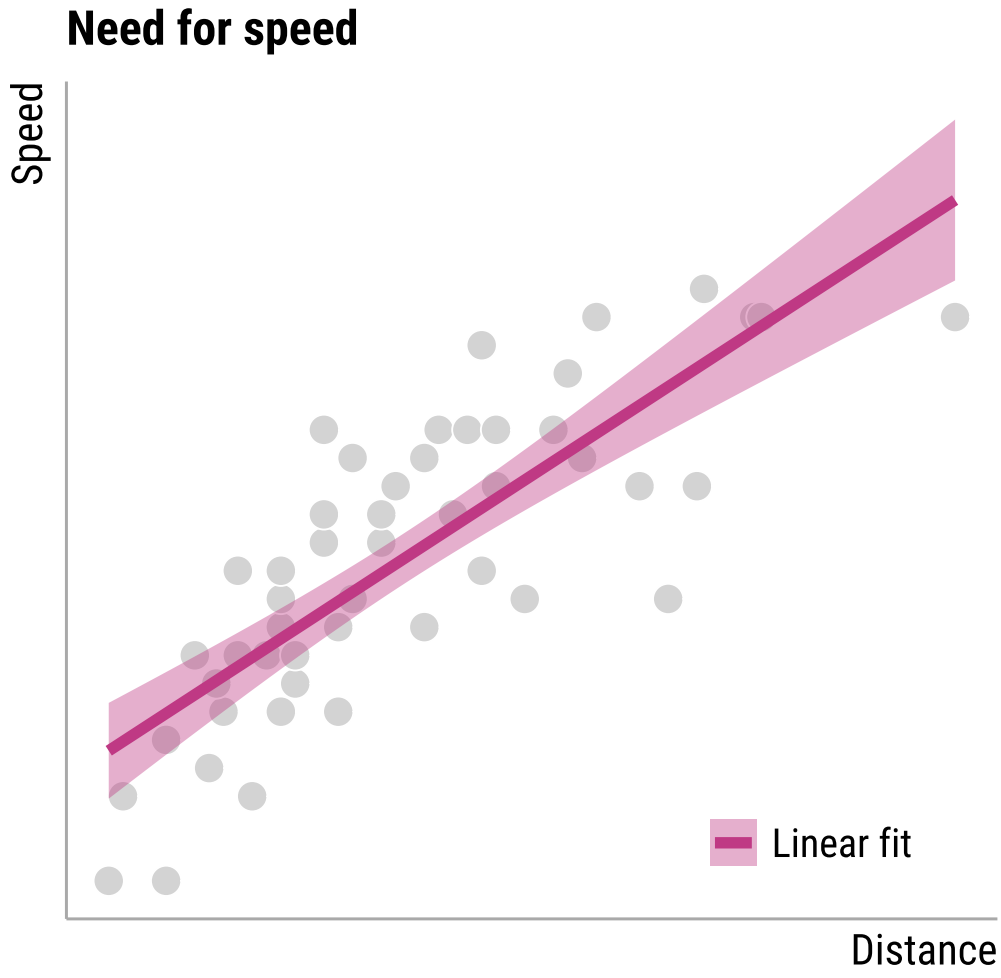
Type of Arrests pere capita for each region

region	Murder	Assault	UrbanPop	Rape
East Coast	0.13	3.02	1	0.27
Other	0.12	2.52	1	0.34
West Coast	0.08	2.46	1	0.41

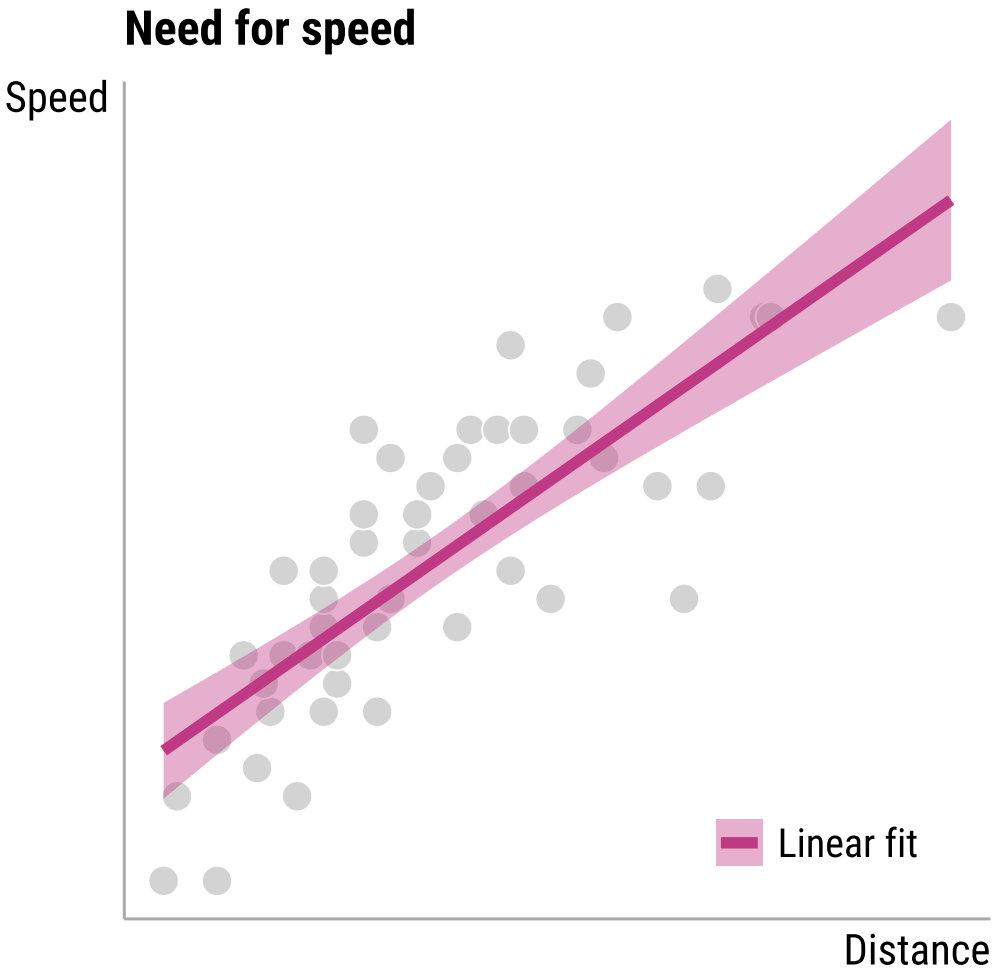
Let's plot

Finally, let's briefly look into plots. For this, I'm using the package `hrbrthemes`. Check it out here!.

I'm also saving these as .svg for resolution purposes.



… and for Andrew Baker's sake, we can also rotate the y-axis label (remember to rename your code chunk!)



Come to the dark [HTML] side...

If you want to see how this would look as HTML, just change your YAML (i.e. the header of this document, between — and —) for the following:

I've included a separate R markdown file with this, that you can knit and see how the HTML file looks. I've also uploaded it here just for fun 😸.

If you want to share your HTML files, a super quick way is Grant McDermottt's suggestion using Github:

Some additional resources

There are **tons** of resources out there, but some of my favorite almost always come for Alison Preshill. Check out her website!

Some additional material that could be useful:

- Xie, Y., J. J. Allaire, & G. Grolemund (2021). "Rmarkdown: The definitive guide"
- Xie, Y., C. Dervieux, & E. Riederer (2020). "R Markdown Cookbook"