A Minimal Book Example

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Chapter 1

Prerequisites

This is a *sample* book written in **Markdown**. You can use anything that Pandoc's Markdown supports, e.g., a math equation $a^2 + b^2 = c^2$.

The **bookdown** package can be installed from CRAN or Github:

```
install.packages("bookdown")
# or the development version
# devtools::install_github("rstudio/bookdown")
```

Remember each Rmd file contains one and only one chapter, and a chapter is defined by the first-level heading `#`.

To compile this example to PDF, you need XeLaTeX. You are recommended to install TinyTeX (which includes XeLaTeX): https://yihui.org/tinytex/.

Chapter 2

R CMD check

2.1 R-CMD-check

Quick how-to to set a github action for a R CMD check each time there is merge into the **main** (or **master**) branch using `r-lib` check-release.yaml or check-standard.yaml

2.2 Prerequisite

None in particular but could be good to have some tests already.

2.3 Steps

- Create your package.
- Try to test your package `devtools::test()` or `devtools::check()`
  - While this step is not really necessary, it is to make sure your tests runs once and any further problems do not come from the tests.
- Add the check-release.yaml `usethis::use_github_action("check-release")` or check-standard.yaml `usethis::use_github_action("check-standard")`
  - check-release.yaml will run R CMD check on Ubuntu and current R version

  - check-standard.yaml will run R CMD check on 3 OS: mac and Windows with the current R version, Ubuntu with the current, development and previous version of R. This what you would want for CRAN.

- Add the badge with `usethis::use_github_actions_badge("check-release")` or `usethis::use_github_actions_badge("check-standard")`
- Push!

Chapter 3

Shiny deploy

3.1 shiny-deploy

Quick how to set a github action for a shiny deployment each time there is merge into the **main** (or **master**) branch using `r-lib` shiny-deploy.yaml

3.2 Prerequisite

Make sure you have the rsconnect information.

- https://shiny.rstudio.com/articles/shinyapps.html

3.3 Steps

- Create your app using `renv` (The yaml use assume `renv` is used).
  - *It is probably also a best practice to use renv.*
- Try to deploy your app (either with the publish/redeploy button) or `rsconnect::deployApp()`
  - While this step is not really necessary, it is to make sure your app runs once and any further problems do not come from the app itself.
- Add a description `usethis::use_description(check_name = F)`.
  - *`check_name = F` to avoid checking name valid for CRAN.*

- Add the shiny-deploy.yaml `usethis::use_github_action("shiny-deploy.yaml")`
- Edit the shiny-deploy.yaml, especially the following part.
  - You can either fill in for the APPNAME, ACCOUNT, SERVER.

```
- name: Authorize and deploy app
  env:
    # Provide your app name, account name, and server to be deployed below
    APPNAME: your-app-name
    ACCOUNT: your-account-name
    SERVER: shinyapps.io # server to deploy
  run: |
    rsconnect::setAccountInfo("${{ secrets.RSCONNECT_USER }}", "${{ secrets.RSCO
    rsconnect::deployApp(appName = "${{ env.APPNAME }}", account = "${{ env.ACCO
  shell: Rscript {0}
```

  - Or you can remove the `env` block and change the `rsconnect::deployApp` call.

```
- name: Authorize and deploy app
  run: |
    rsconnect::setAccountInfo("${{ secrets.RSCONNECT_USER }}", "${{ secrets.RSCO
    rsconnect::deployApp()
  shell: Rscript {0}
```

- Specify the R version.
  - *I have a problem with the update of 4.2 from the 30.10.2022, so I have added a step to specify the same R version to be installed on the github action rather than the latest one. This should be a temporary measure while something better is figured out.*
    From

```
- uses: r-lib/actions/setup-r@v2
  with:
    use-public-rspm: true
```

    To

```
- uses: r-lib/actions/setup-r@v2
  with:
    r-version: '4.1.0'
    use-public-rspm: true
```

- Add 3 secrets in the repository to store you account, token and secret (see prerequisite). They should have those names
  - `RSCONNECT_USER`, `RSCONNECT_TOKEN`, and secret `RSCONNECT_SECRET`
  - You can follow these guides if needed
- Link the shiny app folder to the github repo (add the remote and origin) (if you have not done it already).
- Push!

Chapter 4

Literature

Here is a review of existing methods.

Chapter 5

Methods

We describe our methods in this chapter.

Chapter 6

Applications

Some *significant* applications are demonstrated in this chapter.

6.1 Example one

6.2 Example two

Chapter 7

Final Words

We have finished a nice book.