Documenting at Fontys ICT: my 4 cents

Fontys ICT Teachers

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Preface

This is a Quarto book about how to write documentation with (amongst others) Quarto.

1 Introduction

This is a book about a possible way to create and structure courses and documents for/from/in canvas.

The book and its building blocks can be found in Fontys-ICT-Teachers (2023)

2 Premises

- At Fontys ICT we are mainly ICT persons, so documentation should be in version control.
- At this moment the de facto standard for version control is git.
- Canvas is our LMS, so we are looking for a maintainable way to get the lesson materials in canvas.

2.1 Canvas for structure vs documents for content

- Canvas tells us about the week structure, deadlines, where to upload what (and when).
- The course content is in documents (that are uploaded in canvas).
- From canvas module only some 3 clicks needed, preferably, to reach the info you are looking for.
- Standard document types are
  - pdf - text, theory, assignments, looks similar in different viewers.
  - pptx - for slides.
  - zip - containing programming material, or projects created by students.
  - url - to a git repo. If it contains student made work they uploaded, for the 'toets-dossier' this (also) has to be uploaded in a zip at the end of the semester.

2.2 self-contained documents

The content in a document should be more or less self-contained, which means:

- If the document contains an assignment or challenge, *all* info about the content of that assignment/challenge should ideally be ín the document.
- To put documentation in version control, markdown is used a lot nowadays, and easy to learn. ms-Word is not very practical with version control, LaTeX is too big a hurdle for people that did not already get acquanted.
- Quarto looks promising to create documents by including content from markdown and other formats. The resulting documents can be several types: mainly pdf and/or a website seem relevant for us.

See Knuth (1984) for additional discussion of literate programming.

3 How to do it...

3.1 How to create a git repo for a quarto book

TODO

3.2 How to create a new quarto book

- Go to an empty directory. (Possibly within the git repo you created in the previous chapter)
- Open a CLI (Command Line Interface)
- In the CLI, run the command `quarto create`. From the options that pop-up, choose `Project`, and as the `Type` choose `book`.
- For `Directory` type `.` (current directory).
- Then choose if you want to open the `quarto project` you just created, or not.

The `book project` was created, now very time something changed you can create a new build, see chapter `How to build the book`, but first you may want to add your book to your git.

3.3 How to put the files in git

TODO

3.4 How to build the book

A book is build from `sources`, just like software. Quarto knows how to build from `qmd` (Quarto markdown) and a `_quarto.yml` file. You can edit the source documents, like the markdowns or the pictures. Probably you will want to add changes in git before building the book.

- Open `index.qmd`
- ctrl+shift+P for the vs code menu, then start typing `Quarto` (`Qua` should be enough to get `Quarto: Render PDF`. `Enter` starts the build.

To learn more about Quarto books visit https://quarto.org/docs/books.

References

Fontys-ICT-Teachers. 2023. “”Documenting at Fontys ICT: My 4 Cents”.” https://github.com/stasemsoft/Documentation_my_four_cents.

Knuth, Donald E. 1984. “Literate Programming.” *Comput. J.* 27 (2): 97–111. https://doi.org/10.1093/comjnl/27.2.97.