Introduction

Ben Lauwens

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1 Who are we?

- Lecturer: COL IMM Ben Lauwens / D30.19 / ben.lauwens@mil.be
- Responsable Projects: Mr Philippe Blondeel / D30.14 / philippe.blondeel@mil.be
- Assistant: MAJ Piet Van Der Paelt / D30.17 / piet.vanderpaelt@mil.be

2 Programming Algorithms and Project

- Theory: 16 Hr → 48 Hr (preparation of exercises)
- Exercises: 16 Hr → 32 Hr (preparation of project)
- Project: 28 Hr → 56 Hr (implementation of project)

3 Documentation

- All notebooks can be found on github: https://github.com/BenLauwens/ES123/Lectures
- Complete book from 2019 is available online (lecture notes are more recent and include supplementary information): https://benlauwens.github.io/ThinkJulia.jl/latest/book.html.

4 Schedule

Lectures	Theory	Exercises	Project
1/2	09/02	20/02	
3/4	13/02	27/02	
5/6	16/02	06/03	
7/8	02/03	13/03	
9/10	09/03	20/03	
11/12	16/03	27/03	
13/14/15	23/03	17/04	
16/17/18	30/03	24/04	
Project			30/03-31/03
Project			13/04-14/04
Project			20/04-21/04
Project			27/04-28/04
Project			04/05-05/05
Project			08/05

We are always available during contact hours

5 Evaluation

Test:

- 19/03 - 2Hr: Exercises
- 04-05-08/05: Presentation project common part (group)

Exam: 4Hr Exercises + written report project individual part

6 Julia

- Install Julia on CDN laptop
- Save following code to a file `start.jl` in the `Downloads` folder:

```
const downloadfolder = joinpath(homedir(),"Documents")
!ispath(downloadfolder) ? mkdir(downloadfolder) : nothing
cd(downloadfolder)

using Pkg
const deps = [pair.second for pair in Pkg.dependencies()]
const direct_deps = filter(p → p.is_direct_dep, deps)
const pkgs = [x.name for x in direct_deps]
if "Git" ∉ pkgs
    @info "Installing Git tools for Julia $(VERSION)..."
    Pkg.add("Git")
end

@info "Downloading course material into $(downloadfolder)"
using Git
try
    run(`$(git()) clone https://github.com/BenLauwens/ES123.git`)
    @info "Download complete"
catch err
    @warn "Something went wrong, check one of the following:\n  - .gitignore file
    ↪ location\n  - destination folder already is a git repository"
    @info err
end
```

- Start Julia and enter following command in the REPL when your laptop is connected to a network without proxy, i.e. not to CDN:

```
julia> include(joinpath(homedir(),"Downloads","install.jl"))
```

7 Pluto Notebook interface

The browser based interface can be started from the Julia REPL with the following command:

```
julia> include(joinpath(homedir(),"Documents","ES123","setup","start.jl"))
```

> 💡 Please copy the lectures files from `Lectures` to `work` and open the files in the `work` directory.

8 Updating the Lectures

Enter the following command in the Julia REPL when your laptop is connected to a network without proxy to update the lectures:

```
julia> include(joinpath(homedir(),"Downloads","update.jl"))
```

⚠️ | Be warned, all local changes except those in the `work` directory will be deleted!