

Introduction

Who are we?

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

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)

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>.

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

Evaluation

Test:

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

Exam: 4Hr Exercises + written report project individual part

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"))
```

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"))
```

Tip

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

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"))
```

Warning

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