This is the repository of the course on Functional Programming in Scala taught at the University Rey Juan Carlos.

Content

The course basically includes several notebooks on the following topics:

- PF-1.1 Object-oriented Scala
- PF-2.1 Functions and algebraic data types
- PF-2.2 Recursive functions and ADTs
- PF-2.3 The Curry-Howard correspondence
- PF-3.1 The Hall-of-Fame of HOFs
- PF-3.2 HOFs as a query language

Launching notebooks

To access these notebooks you need first to clone this repository in your local drive:

```
> git clone https://github.com/jserranohidalgo/urjc-pd-21-22.git
pd
```

Then, run the program:

```
jupyter notebook
```

in the root directory of the repository – provided that you already installed `jupyter` in your computer (see instructions below).

Alternatively, you can skip the manual installation of `jupyter` and run it through docker as follows:

```
docker run -it --rm -p 8888:8888 -p 4040:4040 -m 4g -v "$PWD":/home/jovyan/work
almondsh/almond:latest
```
(LINUX)

```
docker run -it --rm -p 8888:8888 -p 4040:4040 -m 4g -v <<c:/path/to/downloaded/folder>>:/hom
almondsh/almond:latest
```
(WINDOWS)

(also in the root directory of the repository)

Finally, note that `jupyter` is already installed in the virtual environment MyApps (just for URJC users).

Installing jupyter and the Scala kernel

To install jupyter and run Scala notebooks, follow these steps:

- Install the package manager `conda`, or use `pip`, the python package manager.

- Install `jupyter` itself.
- Alternatively, you can also find jupyter notebooks for free when installing anaconda.
- Install the Scala plugin `almond`

http://hdl.handle.net/10115/19908