

How to use JuliaBox

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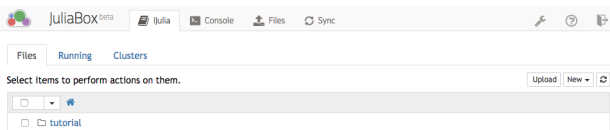
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What is JuliaBox?

- ▶ a cloud hosted environment for Julia
- ▶ interactive notebooks for coding
- ▶ comes with some necessary Julia packages already installed

Logging into JuliaBox

- ▶ head over to <https://juliabox.org>
- ▶ login with any Google account
- ▶ once you login, you should see a page that looks like

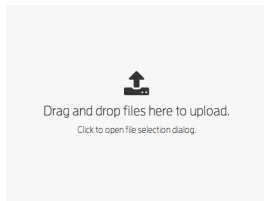


Uploading a Julia file

- ▶ Julia files for the homework can be found at http://web.stanford.edu/class/ee103/julia_files/
- ▶ try downloading the file `hello.jl`
- ▶ click on the Files tab in menu bar at the top of JuliaBox



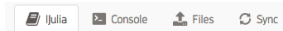
- ▶ drag and drop files into the specified region, or click on it to select to file to upload



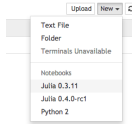
- ▶ try uploading the `hello.jl` file to your JuliaBox

Creating an IJulia notebook

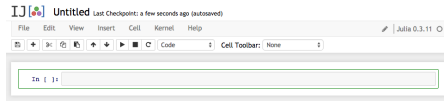
- ▶ an IJulia notebook is an interactive file that can run in your browser
- ▶ click on the IJulia tab in menu bar at the top of JuliaBox



- ▶ click on the New button and select Julia 0.3.11



- ▶ a new page should open in your browser that looks like



- ▶ you can rename your notebook by clicking on the name in the top left

IJulia [logo] Untitled0

Coding in an IJulia notebook

- ▶ the IJulia notebook is organized into cells
- ▶ you can type code directly into a cell

```
In [ ]: println("Hello world")
```

- ▶ you can run a cell by clicking it to select it, and then either clicking on the play button in the toolbar or pressing Shift + Enter



- ▶ the output of the cell will be displayed after it is run

```
In [1]: println("Hello world")  
Hello world
```

- ▶ the menu bar will contain options for creating and deleting cells

File Edit View Insert Cell Kernel Help

- ▶ make sure to periodically save your progress by clicking on the save button in the toolbar



Including code in an IJulia notebook

- ▶ you can include the code in the `hello.jl` file you previously uploaded by creating and running a cell like

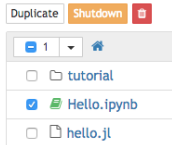
```
In [1]: include("hello.jl")  
Out[1]: hello (generic function with 1 method)
```

- ▶ once the code is included, you can run the `hello` function that is included in `hello.jl`

```
In [2]: hello()  
Hello
```

Shutting down an IJulia notebook

- ▶ to shut down an IJulia notebook, first close the IJulia notebook page in your browser
- ▶ return to your JuliaBox page, click on the notebook you wish to shut down, and then click the orange Shutdown button



Setting up EE103 Packages

this exercise will recap basic JuliaBox usage, as well as setup all the packages needed for EE103 on your JuliaBox

1. download the `setup_packages.jl` file from the EE103 website
2. upload the `setup_packages.jl` file to your JuliaBox
3. create a new IJulia notebook titled "Setup Packages"
4. include the `setup_packages.jl` file in the notebook
5. run the `setupPackages` function
6. run the command `Pkg.status()` and verify your output

```
In [1]: Pkg.status()
```

```
1 required packages:  
- LinearLeastSquares  
1 additional packages:  
- MMAPlot
```

7. shutdown your notebook