

# ORIE 4741: Learning with Big Messy Data

## How to use JuliaBox

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## What is Julia Box

- ▶ A cloud hosted environment for Julia.
- ▶ Interactive notebooks for coding.
- ▶ Comes with some necessary Julia packages built-in.

## Logging into JuliaBox

- ▶ Go to <https://Juliabox.org>.
- ▶ Login with your Google/GitHub/LinkedIn account.

## Creating an IJulia Notebook

- ▶ An IJulia notebook is an interactive file that can run in your browser.
- ▶ Click on the **Files** tab.
- ▶ Click on the **New** button and select Julia 0.5.0-dev (or Julia 0.4.6, which is more stable).
- ▶ A new page should open in your browser.

## Coding in an IJulia notebook

- ▶ The IJulia notebook is organized into cells.
- ▶ You can type code directly into a cell
- ▶ 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.
- ▶ For other operations (e.g. creating and deleting cells), check the menu bar or click on **Help** and then **Keyboard Shortcuts**.

## Install needed packages

- ▶ Type in `Pkg.add("Gadfly")` into a cell.
- ▶ Replace "Gadfly" by the name of the package you want to install.

## Uploading a file to JuliaBox

- ▶ Click on the **Files** tab with an uploading icon at the very top.
- ▶ Drag and drop files to the area on the right to upload, or click it to open file selection dialog.

## Sync Git Repositories with JuliaBox

- ▶ Click on the **Sync** tab with an a sync icon at the very top.
- ▶ Add your git repository to JuliaBox.
- ▶ Synchronize with remote whenever needed.
- ▶ **Public git repository for our class:**  
**<https://github.com/ORIE4741>**



## Use the command line on JuliaBox

- ▶ Click on the **Console** tab with an a console icon at the very top.
- ▶ `pwd`, `ls`, `cd`, `mkdir`, `cat`, `less`, `cp`, `mv`, `rm`

## Some useful resources (Not required, but useful)

- ▶ Command line:  
<https://www.learnenough.com/command-line-tutorial>
- ▶ Git:  
<https://git-scm.com/docs/gittutorial>
- ▶ Julia:  
<http://docs.julialang.org/en/release-0.4/manual/getting-started/>

## An exercise

- ▶ Log into JuliaBox with your own account.
- ▶ Sync our git repository for our class with JuliaBox.
- ▶ Under the Tutorial folder, there is a text.txt file.
- ▶ Create an IJulia Notebook, write code to do the following job:
  1. Open that .txt file.
  2. For each line of the file, print out its line number, followed by the text.
  3. Count how many lines are in the file.
- ▶ The output should be something like:  
1 Julia is a ...  
2 It provides a ...  
...  
There are 5 lines in total.

## An exercise

- ▶ If you don't know how to read file to julia, google "julia read file". The first link (a wikibook) should help you with that.
- ▶ If there are other things that you need to know, check the resouces given in the slides, or just google it.