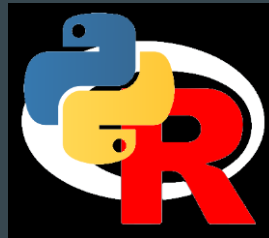


Downloading and Installing

2022 Programming in Psychological Science



R (and Python)

- You must learn (or become better at using) the R *language* for this course. In addition some of you will also choose to learn the Python 3 *language*.
- These slides provide you with installation instructions for R and Python 3 *Interpreters* and two recommended programs to use the languages (i.e. *Integrated Development Environments; IDEs*).
- Note however that all Assignments and the Exam will be submitted as .R scripts and .py **scripts**. A script is a text code files that can be run with different Interpreters and IDEs.



Installing your programming IDE

These are the two free recommended programs to use the languages (*Integrated Development Environments; IDEs*): Rstudio and PyCharm Community

- RStudio is recommended for those who are only learning R.
- Both RStudio and PyCharm Community are recommended for most who are learning both Python & R.
- Using both R and Python within PyCharm Community is also an option. But this is recommended for only those who already know some R and want both interpreters accessible within the same environment.

Other Python IDE possibilities:

- Spyder
- Jupyter Notebooks (not recommended)

<https://towardsdatascience.com/5-reasons-why-jupyter-notebooks-suck-4dc201e27086>

Download R (version 4.1.2)

Download and install the correct version for your operating system at this location:
<https://cran.rstudio.com/>

Download the “base” program



Download R Studio

<https://www.rstudio.com/products/rstudio/download/#download>



Anaconda Python 3



Download and install the .exe file from this location:

<https://www.anaconda.com/products/individual>

Run the .exe to install the program. Remember the destination folder, e.g.
“C:\Users\[Your Name]\Anaconda3” on Windows

“/Users/[Your Name]/opt/anaconda3” on Mac

Keep “Register Anaconda3 as my default Python 3.9” selected. We will use Python 3.9 for this course, not Python 2.7



Download and set up PyCharm

Download and install the Community .exe file from this location:

Windows: <https://www.jetbrains.com/pycharm/download/#section=windows>

Mac: <https://www.jetbrains.com/pycharm/download/#section=mac>

Linux: <https://www.jetbrains.com/pycharm/download/#section=linux>

(Do not download the Profession version unless you are willing to pay for it in 30 days)

- Start a new “Pure Python” project with Base interpreter: Python 3.9
- OR: Make sure we are using the correct version of Python by going to File -> Settings -> Project: -> Python Interpreter -> Python 3.9 at either “C:\Users\[Your Name]\Anaconda3\python.exe” or “~/opt/anaconda3/bin/python”
 - If you don’t see it here: First make sure you installed Anaconda Python 3 (see last slide)
If you have installed Anaconda: navigate to Settings symbol on the same page -> System Interpreter -> Navigate to one of the locations, either: “C:\Users\[Your Name]\Anaconda3\python.exe” or “/Users/[Your name]/opt/anaconda3/bin/python”



Use R in PyCharm (optional)

After installing **both** R and PyCharm, download the R plugin for PyCharm by:

- Opening PyCharm
- Navigating to
 - Windows: File > Settings > Plugins
 - Mac: PyCharm > Preferences > Plugins
- Searching for R in the search bar at the top
- Pressing “Install” next to **R Language for IntelliJ**

Create a new R project by:

- Navigating to File > New Project
- Navigate to “R Project” (not “R Package”)
- Choose “Suggested 4.1.2” from the Base interpreter (or a similar R version)
- Click “Create”