

HW 10 Instructional Project 1

STAT 5400

Due: Nov 15, 2024 9:30 AM

Problems

1. ggplot2 (prepared by Connor Curtiss, Pradeep Maripala, Ariadna Orbe Vivero, Behrooz Khalil Loo, Bowen Su)

Complete the two questions on the slides: ggplot2.pptx, on ICON.

2. Numpy and Pandas (prepared by Akhilesh Karra, Vaishnavi Soni, Nathan Munshower, Michael Sullivan, Dongwei Zhang)

Complete the questions on the slides: Numpy and Pandas.pptx, on ICON.

3. Practice of Julia (prepared by Phoebe Low and Ting-Hung Yu, STAT 5400 Fall 2020 alumni)

Watch the following videos and read Julia slides.pdf on the ICON site.

<https://uicapture.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=f4b86ede-d182-4e87-9047-ac4800feeacf>

<https://uicapture.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=fd3ad007-deb3-4aa3-9f49-ac4800fee7b9>

Finish the homework question assigned on the slides.

Use the online Julia platform <https://repl.it/languages/julia> or install Julia locally to write a function, say `m(x)`, that finds mean and variance (no packages needed) simultaneously.

- Test on sequence of integers 1:10000.
- Paste the code below on the RMarkdown file, and attach a screenshot of results to the PDF.

put your code here

```
# Use the code below to insert the screenshot into pdf
# ![Caption for the picture.](/path/to/image.png)
```

4. Connect R to ChatGPT Watch the following videos, and explore using ChatGPT in R through API. You do not need to submit anything for this question. https://www.youtube.com/watch?v=szPIuzQ-jco&ab_channel=AnalyticoHub