Assessment 1

This assessment contains two questions. They will test your familiarity with basic R and Python. It should take approximately 3 hours of effort to complete, but this may depend on your familiarity with R and Python.

The available marks are indicated in brackets for each question. This assessment will count **0%** towards the total marks for this module. The assessment will be marked, and feedback will be provided.

Instructions

You are provided with the files `PDS_A1_Q1.ipynb`, `PDS_A1_Q2.Rmd`. Modify these files according to the questions contained there, filling in the appropriate cells/code blocks. Please carefully consider the following important points:

- **Do not load any additional libraries, neither in Python nor in R.**
- Do not edit code cells/code blocks that start and end with the comment `# Do not alter this`.
- Please answer in each cell/code block only the corresponding subpart (e.g., only answer D in the cell below the heading Part D). The markers will try, where possible, not to penalise answers to parts for errors in previous parts.
- You may use code and variables from previous subparts in your answers of a particular part, e.g., Part D can use code or variables from Part C.
- Any question that asks you to print something should be answered by an explicit informative print statement containing some indication on what is being printed.

Submission

Create a zip file containing the `.ipynb` and `.Rmd` files. Make sure that your name and college CID are included as comments in both files. Submit the zip file on Blackboard in the Assessment 1 submission tab on the module page. The deadline is **Monday 13 October 2025 at 09:00am** UK time.

Please note Imperial College's policy on the late submission of assessments.

The assessment must be attempted individually. It must be your own, unaided work. Candidates are prohibited from discussing assessed coursework, and must abide by Imperial College's rules. Enabling other candidates to plagiarise your work constitutes an examination offence. To ensure quality assurance is maintained, departments may choose to invite a random selection of students to an 'authenticity interview'.