Assessment Brief

Module title	Programming for Data Science
Module code	COMP5712M
Assignment title	Coursework 1
Assignment type and description	In-course assessment, implement Python functions
Rationale	To develop your skills in defining algorithmic functions in Python
Word limit and guidance	This coursework should take less than 15 hours to complete
Use of GenAI in this assessment	AMBER: AI tools can be used in an assistive role. You are permitted to use AI tools for specific defined processes within the assessment.
Weighting	20%
Submission deadline	4 November 2025, 10am
Submission method	Gradescope
Feedback provision	Marks and feedback for the submitted work returned via Gradescope, within 3 weeks after the submission deadline
Learning outcomes assessed	LO1: Design, build and test computer programs in Python
Module leader	Hui Lau

1. Assignment guidance

This coursework is intended to test skills in defining algorithmic functions in Python, with an emphasis on types of function for processing, transforming and classifying. Completing this set of tasks should give you a very good grounding in the fundamental programming techiniques required for data science.

2. Use of GenAI

This coursework is rated AMBER by the university: AI tools can be used in an assistive role only. You are permitted to use AI tools for specific defined processes to support your learning, but not to generate assessed work on your behalf.

Within this assessment you may use Generative AI to:
- clarity and simplify complex concepts
- provide general feedback and advice on your coding style, such as readability, consistency, or adherence to conventions

You must not use Gen AI to:
- produce written content (code, comments, or any other content)) that you submit as part of your work, even if you modify it afterwards
- rewrite, edit, or adapt any part of you submitted work on your behalf

3. Assessment tasks

Please complete the tasks specified in the Jupyter notebook file coursework1.ipynb. You will write your code in the same notebook file. Please do not change the name of the file.

4. General guidance and study support

Developing your academic skills will enable you to become a more effective learner. Online resources on critical thinking, reading, academic writing and more can be found at Skills@Library website at https://library.leeds.ac.uk/info/1401/academic_skills#minerva.

5. Assessment criteria and marking process

When you submit work for assessment it is expected that it will meet the University's academic integrity standards. Standard university penalty of 5% of available marks per day, or part of a day, will apply to late work. Late submissions are acceptable up to 7 days late. Feedback on late submissions may not be provided within 3 weeks of submission deadline.

6. Presentation and referencing

Complete your work in the given Jupyter notebook file.

7. Submission requirements

You only need to submit the notebook file coursework1.ipynb. Please do not submit any other files and do not change the filename or function name. Make sure you have tested the file with no errors. Please download your submission from Gradescope and check if it is the correct file and that it is not corrupted. The link to the submission can be found on Minerva under Assessment and Feedback/Coursework1.

8. Academic misconduct and plagiarism

Leeds students are part of an academic community that shares ideas and develops new ones.

You need to learn how to work with others, how to interpret and present other people's ideas, and how to produce your own independent academic work. It is essential that you can distinguish between other people's work and your own, and correctly acknowledge other people's work.

All students new to the University are expected to complete an online Academic Integrity tutorial and test, and all Leeds students should ensure that they are aware of the principles of Academic integrity.

When you submit work for assessment it is expected that it will meet the University's academic integrity standards.

If you do not understand what these standards are, or how they apply to your work, then please ask the module teaching staff for further guidance.

By submitting this assignment, you are confirming that the work is a true expression of your own work and ideas and that you have given credit to others where their work has contributed to yours.

9. Assessment/ marking criteria grid

Question	Total mark
1(a) function `is_english_word` returned correct answer	5
1(b) function `password_strength` returned correct answer for • ILLEGAL password – 1 mark • WEAK password – 1 mark • MEDIUM password – 2 marks • STRONG password – 1 mark	5
2(a) function `available_features` returned correct answer	3
2(b) function `recommend_holiday` returned correct answer including in the correct order	5
3(a) function `no_code_countries` returned correct answer	1
3(b) function `missing_co2data_dataframe` returned correct answer	1
3(c) function `total_emission_over_years` returned correct answer	3
Total	23