Northeastern University London

Assessment Brief: Individual Coursework 2024–25

Assessment Details

Course Title:	Intensive Foundations of Computer Science and Programming I
Course Code:	NCHNAP445
Course Leader:	Katia Punter
Level:	4
First, Second, or Third Sitting:	First Sitting
Assessment Title:	Summative Assignment 1
Assessment Number:	AE1
Assessment Type:	Set Programming Exercises
Restrictions on Time/Length:	Requires on average 15 – 25 hours to complete
Assessment Weighting:	50%
Issue Date:	09 June 2025, 09:00
Hand-in Deadline:	18 July 2025, 23:59
Planned Feedback Deadline:	29 August 2025 23:59
File Format Accepted:	PDF, ZIP, PY, MD, TXT (a link to a GitHub repo), MP4
Mode of Submission:	Canvas
Anonymous Submission:	No

Assessment Task

Please use Python version 3.9 or above to complete your assignment. Note that Python 3.9+ cannot be used on Windows 7 and earlier. Please state the Python version you used to complete this assignment.

Task 1

Write a Python program that completes the following steps:

1. Generates a simple equation with random numbers, such as:

$$3 \times x = 12$$

2. Displays the equation on its own line in the terminal or a GUI of any kind (you can use Tkinter, Flask, HTML and CSS or any other way to produce).
3. Check if the user's answer is correct and display an appropriate message.
4. Repeat the process for several equations, keeping track of the user's score.
5. After all equation questions have been answered, output the total score.
6. Once you have completed this task, push the code to GitHub.

Code Quality Expectations

- Follow PEP 8 standards
- Make sure the equation includes an unknown (x)
- Include appropriate code comments
- Use docstrings
- Strive to keep your code simple and readable
- Structure your code in a modular way
- Aim to use pure functions where possible

Task 2

Produce user and technical documentation for the program you have developed in Task 1 using README Markdown. The user manual should be written for a general user unfamiliar with Python. The document should not exceed 1000 words, +/- 10%.

Task 3

Create a video in mp4 format, no longer than 20 minutes.

In the video, demonstrate the process of Test-Driven Development (TDD) using a Python testing framework of your choice. You can solve a classic programming problem using TDD or come up with your own idea. You may choose one of the following problems:

- FizzBuzz
- Roman Numerals
- Leap Year Calculator
- Palindrome Checker
- Anagram Detector

Implementation

While completing the video:

1. Push your code and tests to a GitHub repository.
2. Set up a Continuous Integration (CI) pipeline using GitHub Actions to automatically run your tests whenever you push changes to the repository.

Submission

The following items are required for your submission:

- A PDF containing all code and documentation (Tasks 1, 2 and 3) for Turnitin verification. **Do not zip PDFs**.
- A compressed (zipped) folder containing your code (including any necessary files) (Task 1, 2 and 3) and an .mp4 file (Tasks 3)
- A link to your GitHub repository. Ensure the repository is public, or add your teacher as a collaborator if it is private.

The following elements **do not** contribute towards the word count specified in the brief. Titles and subtitles; contents pages and lists of illustrations; captions and text in diagrams, figures, or tables; lists of references. All other words do contribute to the word count. Please note that if you exceed the word count, the marker will stop marking at the point where you have exceeded the limit specified in the brief. The exemptions listed above are generic: depending on the genre of your assessment (e.g., an essay, report, project plan, etc.), one or more of the listed elements may not be required.

Assessment Criteria

This assignment will be evaluated against the specific learning outcomes.

On successful completion of this assessment, students should be able to:

Knowledge and Understanding

- K1a. Understand the underlying basic concepts and principles associated with programming languages.
- K2a. Understand the basic syntax and structure of a Python program.

Subject-Specific Skills

- S1a. Write, test and correct basic programs that others can read, understand and modify.
- S2a. Break large problems into an appropriate design for implementation.

Transferable Skills

- T1ai. Test, evaluate and identify errors in coding.
- T1aii. Display a developing technical proficiency in written English skills that demonstrates an ability to communicate clearly and accurately when producing structured and coherent pieces of text.

The criteria for this assessment are also detailed in the rubric, which can be found in the Canvas submission portal for this assessment.

Submitting Assessments

You have three submission attempts, but only the last submission will be graded. If your last submission attempt is late, you will receive the late penalty even if you have a previous submission that was on time. Please make sure to avoid multiple submissions for assessments with multiple components, as only the last attempt will be graded. Upload several files in one submission attempt instead.

If your assessment requires anonymous submission (see the assessment details table at the top of your assessment brief), please be sure you have left your name off of your submission and out of the submission file name, as failing to do so may result in a 0% mark on the assessment.

Refer to the assessment details table in your assignment brief for acceptable file formats. Do not submit .zip files (unless explicitly required by the assessment brief); use the ‘add files’ function to submit multiple files instead. If you are submitting a physical artefact, you must also provide clear and thorough documentation (such as in the form of photographs or a video) of your submission by the deadline; see the bottom of this section for guidance on submitting video files.

Please ensure that you tick the agreement box at the very bottom of your Canvas submission page (scroll down if you don’t see it). This will enable you to select ‘Submit Assessment.’ Please review the submitted file to ensure that everything is in order.

If you encounter any issues with submission, e-mail a copy of your assignment before the deadline to learning.tech@nulondon.ac.uk along with screenshots of the problem on Canvas, showing a timestamp.

To turn on notifications for submission confirmation emails:

- Canvas in your browser: Account > Notifications > Turn on the bell for ‘All submissions’
- Canvas app: Settings > Email Notifications > All submissions.

To submit a video recording: Select the ‘Panopto video’ icon in the text entry box in your submission portal. You can upload a video file of any format from your media library by selecting ‘upload,’ choosing ‘my folder’ in the drop-down menu, and clicking ‘insert.’ You should be able to play the video back once it processes. See further explanation, including guidance on recording videos using Panopto, in this support article: ‘How to Submit a Video Assignment in Canvas.’

Marking

For summative assessments, the University uses two categorical assessment marking schemes – one for undergraduate and one for postgraduate – to mark all taught programmes leading to an award of the University.

Undergraduate Categorical Marking Scheme:

First Class	Upper Second Class	Lower Second Class	Third Class	Fail
100	68	58	48	38
95	65	55	45	35
85	62	52	42	32
82				20
78				10
75				0
72				

Postgraduate Categorical Marking Scheme:

Distinction		Merit		Pass		Fail	
100	Highest possible distinction	68	High merit	58	High pass	48	High fail
95	Extremely high distinction	65	Mid merit	55	Mid pass	45	Mid fail
85	Very high distinction	62	Low merit	52	Low pass	42	Clear fail
82	High distinction					38	Fail
78	Upper mid distinctionLo w distinction					35	
75	Mid distinction					32	
72	Low distinction					20	Almost no attempt
						0	No attempt Late submission

More detailed information on the categorical assessment marking scheme and the criteria can be found in the Course Syllabus, available on the University's VLE.

For formative assessments, an indicative grade band will be awarded.

Undergraduate:

First Class	Upper Second Class	Lower Second Class	Third Class	Fail
>= 70%	69 - 60%	59 - 50%	49 - 40%	< 40%

Postgraduate:

Distinction	Merit	Pass	Fail
>= 70%	69 - 60%	59 - 50%	< 50%

Learning Outcomes

This assessment will enable learners to demonstrate in full or in part the learning outcomes identified in the Course Descriptor.

On successful completion of this assessment, learners should be able to:

Knowledge and Understanding

- K1a. Understand the underlying basic concepts and principles associated with
- programming languages.
- K2a. Understand the basic syntax and structure of a Python program.
- K3a. Use Python file input/output functions to work with directories and files.

Subject-Specific Skills

- S1a. Write, test and correct basic programs that others can read, understand and modify.
- S2a. Break large problems into an appropriate design for implementation.
- S3a Select appropriate data types to represent information.

Transferable Skills

- T1ai. Test, evaluate and identify errors in coding.
- T1aii. Display a developing technical proficiency in written English skills that demonstrates an ability to communicate clearly and accurately when producing structured and coherent pieces of text.
- T2a. Appreciate the impact of data structure and algorithm choice on the running time and storage space needed to run a program.
- T3a. Understand professional and ethical issues and guidelines.

Accessing Feedback

Apprentices can expect to receive feedback on all summative coursework within 28 calendar days (excluding study breaks) of the submission deadline or, if applicable, the last oral assessment date, whichever is later. The 28 calendar day deadline does not apply to work submitted late. Feedback can be accessed through the assessment link on the Canvas course page.

Late Submissions

Please ensure that you submit your assignment well before the deadline to avoid any late penalties, as a submission made exactly on the deadline will be considered late. Please keep in mind that there may be differences between your computer's clock and the server time, which can cause discrepancies, and that Canvas may take some time to process your submission.

Your Canvas submission portal displays two due dates: one is the deadline for your assignment, and the second is the latest possible date by which your assignment can be submitted late. Please make sure you submit by the assessment deadline in order to avoid late penalties.

If assessments are submitted late without approved Extenuating Circumstances, there are penalties:

- For assessment elements submitted up to one day late, any passing mark will receive 10 marks deducted or a threshold pass (40% for undergraduate, 50% for postgraduate), whichever is higher. Any mark below 40% for undergraduates and below 50% for postgraduates will stand.
- Learners who do not submit their assessment within one day of the deadline and have no approved Extenuating Circumstances are deemed not to have submitted and to have failed that assessment element. The mark recorded will be 0%.
- For assessment subelements, late submission will result in non-submission penalties deducted according to the marking criteria above.

For further information, please refer to AQF7 Part C in the Academic Handbook.

Extenuating Circumstances

The University's Extenuating Circumstances (ECs) procedure is in place if there are genuine circumstances that may prevent a learner from submitting an assessment. If the EC application is successful, there will be no academic penalty for missing the published submission deadline.

Learners are normally expected to apply for ECs in advance of the assessment deadline. Learners may apply for consideration of ECs retrospectively if they can provide evidence that they could not have done so in advance of the deadline. All applications for ECs must be supported by independent evidence.

Successful EC applications for live oral assessments, including vivas, will result in a deferral of the oral to be organised by faculty and apprentices for a date as close as possible to the original presentation date. The deadline for supplementary materials, if assigned, will be carried forward by the length of the oral assessment extension.

Missing an oral assessment, including a compulsory viva, without an approved EC will result in a non-submission for the entire assessment and, accordingly, a recorded mark of 0%.

Apprentices are reminded that the ECs procedure covers only short-term issues (within 28 days leading to the submission deadline) and that if they experience

longer-term matters that impact on learning then they must contact Student Support and Development for advice.

Under the Extenuating Circumstances Policy, learners may defer an assessed element on only one occasion and may request an extension on a maximum of two occasions.

For further information, please refer to the Extenuating Circumstances Policy in the Academic Handbook.

Academic Misconduct

Any submission must be a learner's own work and, where facts or ideas have been used from other sources, these sources must be appropriately referenced. The University reserves the right to hold a viva if there are concerns about the authenticity of a learner's work. The Academic Misconduct Policy includes the definitions of all practices that will be deemed to constitute academic misconduct. This includes the use of artificial intelligence (AI) where not expressly permitted within the assessment brief, or in a manner other than specified. Learners should check this policy before submitting their work. Learners suspected of committing Academic Misconduct will face action under the Policy. Where learners are found to have committed an offence they will be subject to sanction, which may include failing an assessment, failing a course or being dismissed from the University depending upon the severity of the offence committed. For further information, please refer to the Academic Misconduct Policy in the Academic Handbook.

Referrals

If you fail this assignment the first time that you sit it, you will typically be given an opportunity to resit it, subject to the approval of the Progression and Award Board. This is called a referral and your mark will be capped at the pass mark. Referrals will use the same assessment brief as the first sitting and you will be able to rework your previous submission. It is strongly recommended that you carefully consider the feedback received on your original submission and use it to improve your work. The deadline for a referral will be communicated to you after the Progression and Award Board has confirmed your mark and approved the referral attempt. The details of reassessment regulations can be found in the Academic Quality Framework Chapter 7, Part C (AQF7C). Please note that if you fail at the first attempt due to proven academic misconduct, and you are permitted a second attempt, you will usually be provided with a new assessment brief.

Version History

Title: Assessment Brief Template **Approved by: The Quality Team**					
Version number	**Date approved**	**Date published**	**Owner**	**Location**	**Proposed next review date**
4.0	March 2023	March 2023	Registrar	VLE	March 2024
3.0	August 2022	August 2022	Registrar	VLE	July 2023
2.3	December 2021	December 2021	Registrar	VLE	August 2022
2.2	August 2021	August 2021	Registrar	VLE	August 2022
2.1	Septembe r 2020	September 2020	Registrar	VLE	August 2021
2.0	Septembe r 2020	September 2020	Registrar	VLE	August 2021
1.0	August 2019	August 2019	Registrar	VLE	August 2020
Referenced documents	AQF7 Academic Regulations for Taught Awards; Extenuating Circumstances Policy; Academic Misconduct Policy; Course Syllabus				
External Reference Point(s)	UK Quality Code Theme: Assessment				