Assessment Brief

Assessment Details

Course Title:	Intensive Foundations of Computer Science and Programming II
Course Code:	NCHNAP448
Course Leader:	Katia Punter
Level:	4
First or Second Sitting:	First
Assessment Title:	Summative Assessment 1: EMS Design & Build
Assessment Number:	AE1
Assessment Type:	Set Programming Exercises
Restrictions on Time/Length:	Requiring on average 15 - 25 hours to complete
Individual/Group:	Individual
Assessment Weighting:	50%
Issue Date:	10 June 2024, 09.00
Hand in Deadline:	19 July 2024, 23.59
Planned Feedback Deadline:	30 August 2024, 23.59
File Format Accepted:	PDF, .py, CSV
Mode of Submission:	Canvas
Anonymous Marking:	YES

Assessment Task

For this assignment, you are tasked with designing and building a Minimum Viable Product (MVP) for a GUI application within the Employee Management Systems

(EMS) domain. It could be an event register, a diversity needs tracker, an employee performance tracker, or any other concept related to Employee Management Systems (EMS).

The Employee Management System you are to create and document may hold employees' personal and employment details, possibly reflecting the organisational structures of your workplace, such as its departments and divisions.

To successfully complete this assignment, you must submit the following three items:

- A PDF containing the Application Documentation (Task 1).
- A compressed (zipped) folder encompassing your code (comprising any number of necessary files) and data (one CSV file) (Task 2).
- A PDF incorporating a copy of your code intended for Turnitin verifications.

The system you develop must have the following features:

- A GUI to facilitate the input, viewing, and exporting of employee data.
- Capability to read from and write to a CSV file.
- Implementation using object-oriented programming principles.
- Comprehensive commentary, including appropriate docstrings.
- Some exception handling and input validation.
- Some testable logic, exemplified by pure functions for input validation that, given the same parameters, consistently return the same output.

You can enhance the system beyond the basic requirements outlined above. For example, you could integrate a feature allowing on-screen modifications of employee data and enable saving the updated information to a new file. However, to secure the highest grade, it is necessary first to meet the mandatory criteria (above).

Task 1: Application Documentation

1.1. Introduction

Provide a concise overview of your workplace environment and explain the relevance of your proposed MVP to your employer. (500words +/- 10%)

1.2. Design

- A GUI design made in Figma or another prototyping. You must include screenshots and may provide a link to Figma as well. The design should be specific to your application.
- A requirements document (functional and non-functional requirements)
- The proposed tech stack outline (what technologies you will use)
- A code design document, for instance, a class diagram

1.2. Testing Strategy

Write a coherent strategy for testing your application. Explain what types of testing you will use to test your MVP. Heads up, the second summative assignment requires you to write some unit tests using a Python testing framework. (500 words +/- 10%)

Task 2: Application Build

Based on your design and the outlined requirements, construct the Minimum Viable Product (MVP), a version of the product sufficient to be presented to the end user for the Workplace EMS, utilising any relevant Python libraries. Submit your code and data as a zipped folder and a PDF of your code only for plagiarism checks.

Do NOT add your name to the document.

Do NOT mention your organisation by name in your assignment.

Do NOT reveal the names of your colleagues in your assignment.

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 advanced concepts and principles associated with programming languages and design.
- K2a Understand how to use Python libraries to analyse data, perform mathematical transformations, and effectively plot, visualise, import and export data.
- K3a Understand how to practically and conceptually develop industrial strength software using Python.

Subject-Specific Skills

- S1a Apply Python to a range of mathematical and data problems.
- S2a Develop tests to exercise implemented code and appreciate the importance of good testing in the software development process.

Transferable Skills

- T1ai Demonstrate the ability to critically investigate, make judgements and use self-initiative.
- T2a Demonstrate the development of logical analysis and conceptual thinking.
- T3a Demonstrate the ability to manipulate, structure and transform data.

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 students to demonstrate in full or in part the learning outcomes identified in the Course Descriptor.

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

Knowledge and Understanding

- K1a Understand the advanced concepts and principles associated with programming languages and design.
- K2a Understand how to use Python libraries to analyse data, perform mathematical transformations, and effectively plot, visualise, import and export data.
- K3a Understand how to practically and conceptually develop industrial strength software using Python.

Subject-Specific Skills

- S1a Apply Python to a range of mathematical and data problems.

- S2a Develop tests to exercise implemented code and appreciate the importance of good testing in the software development process.
- S3a Document, test, evaluate and critique advanced code.

Transferable Skills

- T1ai Demonstrate the ability to critically investigate, make judgements and use self-initiative.
- 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 Demonstrate the development of logical analysis and conceptual thinking.
- T3a Demonstrate the ability to manipulate, structure and transform data.

Accessing Feedback

Students can expect to receive feedback on all summative coursework within 28 calendar days (excluding the WRL study break periods) of the submission deadline. The 28-day deadline (excluding the WRL study break periods) does not apply to work submitted late.

Students can expect to receive feedback on all formative coursework within 14 calendar days (excluding the WRL study break periods) of the submission deadline. The 14-day deadline (excluding the WRL study break periods) does not apply to work submitted late.

Feedback can be accessed through the assessment link on the course page. Further instructions on submitting an assessment and accessing feedback can be found on the University's VLE.

Late Submissions

Students are reminded to submit their assessment in the correct format and ahead of the published deadline. Deadlines are strict and Canvas uploads made remotely might not be immediate, we therefore strongly recommend that students upload their work to Canvas in good time before the deadline. If assessments are submitted late without approved Extenuating Circumstances, there are penalties:

- For assessments submitted up to two days late: any mark of 40% or higher will be capped at 40% for undergraduate students. Any mark of 50% or higher will be capped at 50% for postgraduate students. Any mark below 40% for undergraduate students and below 50% for postgraduate students, will stand.
- Students who do not submit their assessment within two days, 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%.
- Late penalties are calculated differently for some types of portfolios. Please read the Assessment Brief of your portfolio carefully.

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 student submitting an assessment. If the EC application is successful, there will be no academic penalty for missing the published submission deadline.

Students are normally expected to apply for ECs in advance of the assessment deadline. Students 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.

Apprentices are reminded that the ECs procedure covers only short-term issues (within 21 days leading to the submission deadline) and that if they experience longer-term matters that impact on learning then they must contact their success managers for advice in the first instance.

Under the Extenuating Circumstances Policy, students 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 student's own work and, where facts or ideas have been used from other sources, these sources must be appropriately referenced. The Academic Misconduct Policy includes the definitions of all practices that will be deemed to constitute academic misconduct. Students should check this policy before submitting their work. Students suspected of committing Academic Misconduct will

face action under the Policy. Where students 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/ Faculty Resources Page	March 2024
3.0	August 2022	August 2022	Registrar	VLE, Faculty Resources Page	July 2023
2.3	December 2021	December 2021	Registrar	VLE	August 2022
2.2	August 2021	August 2021	Registrar	VLE	August 2022
2.1	September 2020	September 2020	Registrar	VLE	August 2021
2.0	September 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				