# SWE4001 Introduction to Software Development

## Assessment 001 brief

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Assessment: 1 Develop an artifact in the form of a computer program and code documentation built to a specification

Due Date: 22/01/2021

Weighting: 80%

## Assessment brief

For this assessment students need to design, write, and debug a program that use sequence, selection and repetition statements, methods/functions, primitive data types, arrays, and that do I/O based on a given scenario. Moreover, students should define the appropriate programming constructs in order to develop functional software to a specification, and write documentation.

**Portfolio 1:** Design and development of the software

**Portfolio 2:** Documentation in the form of a report (1500 words)

**Scenario:**

A coffee shop needs to keep track the orders for delivery they receive by phone calls.

The coffee shop has 3 employees that will be using the system, all will have a user account to login.

After each order placed the user will enter to the system:

* The name of the customer
* Address of the customer
* Date (DDMMYY)
* Total amount of order

In addition, a customer ID is generated by the system and stored along with the above information.

The user (employee of the coffee shop) will be able to select from the system to see, at least, the following:

* Numbers of order placed by one specific customer
* Number of orders in one specific day
* Total amount of all orders delivered
* Total amount of the orders placed by a specific customer
* Total amount of the orders placed by a specific day

The user (employee of the coffee shop) will be able to select from the system to receive the following exports (in . txt format)

* Names of customers
* Orders entered per user

The user (employee of the coffee shop) will be able to select from the system to receive the following exports (in . csv format):

* All data entered
* Total amount of orders per day (one record per day)

The user (employee of the coffee shop) will be able to bulk upload orders using preformatted files (txt or xls or csv).

**Indicative Roadmap/Backlog**

* Design programming diagram/structure
* Development of several mechanics (e.g. cutomers’ id generation, formats of exports, user login)
* Design and programming
* File Handling , I/O
* Debugging/ Testing/ Release
* Documentation (report)

## Deliverables and successful submission

**Portfolio 1:** .zip file with the code (upload on the e-learning platform)

**Portfolio 2:** report (upload on Turnitin)

## Additional Information of Portfolio items

**Portfolio 1 (80%):**

Criteria

|  |  |
| --- | --- |
| **Topic** | **Marks** |
| All requirements met | 30 |
| Code executes properly | 50 |
| Code quality (comments, naming conventions, indentation, etc) | 20 |

**Portfolio 2 (20%):**

The Report should include:

* Student’s information, Your full name, program title and user identification (e.g. zz009), word count
* Table of contents
* Introduction
* Definition of the case study / problem addressed
* Main Body
* References
* Header & Footer (include page number)

**References and citation**

Written work should be referenced using the standard University of Bolton referencing style (Harvard Referencing Style)– see:

<https://www.bolton.ac.uk/library/Study-Skills/Referencing/Home.aspx>

**Level HE4** - It is expected that the Reference List will contain between **five and ten sources**. As a MINIMUM the Reference List should include **one refereed academic journal** and **three academic books**

**Portfolio 2 Criteria**

*Relevance 15%*

*Knowledge 20%*

*Argument/Analysis 20%*

*Structure 10 %*

*Presentation 15%*

*Written English 10%*

*Research/Referencing 10%*

## Late Submissions and Plagiarism

Late submissions will be handled according to the University’s Assessment Regulations for Undergraduate Programmes (see <https://www.bolton.ac.uk/wp-content/uploads/2018/11/Assessment-Regulations-for-Undergraduate-Programmes-2018-2019.pdf>).

Plagiarism (cheating) is a serious academic offence.

Guidance about and to avoid plagiarism can be found on the University's LEAP Online website (see <https://www.bolton.ac.uk/leaponline/My-Academic-Development/My-Writing-Techniques/Plagiarism.aspx>).

## Module Learning Outcomes

|  |  |
| --- | --- |
| **Learning Outcomes** | **Assessment** |
| **LO2**: Demonstrate the ability to design, write, and debug programs that use sequence, selection and repetition statements, methods/functions, primitive data types, arrays, and that do I/O | YES |
| **LO3**: Define the appropriate programming constructs in order to develop functional software to a specification | YES |