Higher Computing Science

Assignment

Assessment task

### Task 1: software design and development

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| This document provides information for teachers and lecturers about the coursework component of this course in terms of the skills, knowledge and understanding that are assessed. It must be read in conjunction with the course specification.  Valid for session 2024-25 only. |

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| This assessment is given to centres in strictest confidence. You must keep it in a secure place until it is used. |

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**Task 1: software design and development**

**Problem description**

A fast-food outlet uses an app to allow users to order food online. The data collected by the app is stored in a text file. The owner of the fast-food outlet wants a program to analyse and use this data.

**Purpose**

The program should:

* display the total number of orders delivered and the total number of orders collected
* find the first customer who has submitted a 5-star rating for a given month

The text file stores:

* order number
* date of order
* customer email address
* delivery or collection option
* order cost
* star rating from 1 (lowest) to 5 (highest)

The data from the text file will be read into an array of records.

The program will display the total number of orders delivered and the total number of orders collected to date.

A month will be entered into the program to find the first customer to give a 5-star rating for that month. This customer will win a free meal. Details of the winning customer will be written to a text file called ‘winningCustomer.txt’. If there is no winning customer, a suitable message will be written to the file.

**Assumptions**

* A new text file of orders will be created for each year.
* Data will be exported from the app to the text file on a regular basis.
* The data in the text file is in chronological order.
* The data is formatted correctly and is error-free.

A text file ‘orders.txt’ is used when the program is being created. This file contains data for the 505 orders that were made in October, November and December 2024. A sample of this data is shown below.

Ord1,01-Oct-24,jacobjoseph@lukewarmmail.com,Delivery,14.45,4

Ord2,01-Oct-24,arthurian@geemail.com,Collection,34.24,1

Ord3,01-Oct-24,rebeccashearer@wahoo.co.uk,Collection,17.13,3

...

Ord505,31-Dec-24,buddy@lol.com,Collection,34.67,1

When the month October is entered, the expected output is shown below.

Enter the first three letters of the month to search: Oct

Total number of orders delivered to date: 290

Total number of orders collected to date: 215

The expected content of the file, ‘winningCustomer.txt’ is shown below.

Ord9,maxpower11@inlook.com,19.34