

**FACULTY OF INFORMATICS**

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| **SUBJECT’S INFORMATION:** | | | |
| Subject: | CSCI124 Applied Programming | | |
| Session: | July 2014 | | |
| Programme / Section: | J766SENG (SE) / J766CS53 (MGD) / J766CS42 (DSS) | | |
| Lecturer: | Ms. Siti Hawa | | |
| Coursework Type  *(tick appropriate box)* | ❑ Individual Assignment ❑ Group Assignment ❑ Project  ✓Lab Task ❑ Seminar / Tutorial Paper ❑ Others | | |
| Coursework Title: | **Lab Task 1** | Coursework Percentage: | 2% |
| **ASSESSMENT CRITERIA:** | | | |
| Correctness | All programs should produce the correct result as stated in the specification. | | |
| Coding | Programs should use appropriate control structures and data structures correctly based on what have been covered in the class and stated in the specification. Necessary input validations should be done. | | |
| Readability | Appropriate comments are included. Meaningful identifiers used. Proper indentation and line spacing used. | | |
| Well formatted output | Output should be well formatted with appropriate messages displayed. Numbers are shown with appropriate precision. | | |
| **SUBMISSION:** | | | |
| All completed work should be submitted online through Moodle before or on the due date provided.  **SUBMIT AS EARLY AS POSSIBLE. YOU CAN RE-SUBMIT LATER IF NECESSARY. ONLY THE LATEST SUBMISSION WILL BE MARKED.**  **IF YOU SUBMIT YOUR ASSIGNMENT TWICE, ONE SUBMMISSION BEFORE THE DUE DATE AND ANOTHER AFTER THE DUE DATE, THEN YOU WILL BE PENALIZED FOR LATE SUBMISSON.** | | | |
| DUE DATE: | **WEEK 3** | | |
| **PENALTIES FOR LATE SUBMISSION:** | | | |
| Penalties apply to all late work, except if student academic consideration has been granted. Late submissions will attract a penalty of 25% of the assessment mark per day including the weekend. Work more than (3) days late will be awarded a mark of zero. | | | |
| **PLAGIARISM:** | | | |
| **When you submit an assessment task, you are declaring the following**   1. It is your own work and you did not collaborate with or copy from others. 2. You have read and understand your responsibilities under the University of Wollongong's policy on plagiarism. 3. You have not plagiarised from published work (including the internet). Where you have used the work from others, you have referenced it in the text and provided a reference list at the end ot the assignment.   Plagiarism will not be tolerated. Students are responsible for submitting original work for assessment, without plagiarising or cheating, abiding by the University’s policies on Plagiarism as set out in the University Handbook under University Policy Directory and in Faculty handbooks and subject guides. | | | |

**COURSEWORK SPECIFICATION**

**OBJECTIVES:**

This lab task serves as a revision that covers the topics file input/output, struct, CString, and functions.

**TASKS:**

You are responsible to maintain a simple sales record for the sales employees of a company. The company keeps a master file to store the records of the current salespersons which contains the employee number, name, and sales made for each customer. The file may be formatted in the following way:

12345 Joe Lim KH 879.00

12233 Kay Suet Yee 35.98

23781 Leong Jing Yang 10.00

67543 Woon Tian Yi 500.50

Whenever sales are made during a week, the detail of each of the transaction is entered into a transaction file. The transaction file will contain the employee number and the transaction amount for the salesperson that has secured a sale. The same salesperson may have made several sales in a week and several salespersons may not have any sales during that week. If no sales made, then no record will be kept in the transaction file for this employee. Sometimes, there will be new salesperson joining the company and the details are not yet available in the master file. The transaction file may look like follows:

23781 1000.00

99988 80.30

67543 200.50

23781 199.00

12345 1040.00

67543 67.50

Your task is to write a program that will read a transaction file and use it to create an updated version of the master file. New records should be created and old records updated. In the case of a new record, the name should be prompted before adding to the master file. At the end of the program, a new master file should be created which will be used in the next update. After each update done, print out also (on standard output) the total sales made for that week and the overall total sales made so far. Filenames should be entered by the user (master and transaction).

Declare suitable data structure to keep each record. Use individual functions to perform the updates, calculations and display. Include necessary error checking in your program and provide a well-formatted output.