

**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 2** | 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 4** | | |
| **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:**

The objective of this lab task is to let you get some experience in writing programs using different file format, text processing, and also multi source file.

**TASKS:**

The XML (eXtensible Markup Language) is a common format used to structure and store data on the web. Refer to the attached XML file (address.XML) that could be used to store names in an address book.

The sample file contains four contacts. The < > tag denotes the start of the field and the < / > tag denotes the end of the field.

Your task is to write a program that reads the name of an XML file, and provide the following options to the user:

* allow the user to select and display the names and their corresponding addresses by specifying the city they are living in.
* allow the user to select and display the names and addresses of everyone whose postcode falls within a specified range. For example, everyone who lives in the postcodes 41000 through 42300.

Each option should be performed by a separate function. The functions should take an open stream to the file specified and display the output. For each option, the output should not contain any of the tag information, just the name and addresses only.

You may assume that each contact in the address file has the same structure and the same fields. However, your solution should be able to handle an input file with any number of contacts.

Your program should also perform a checking on the extension of the filename entered. A file without a .xml entension should not be processed. If this occurred, an error message should be displayed and the program should terminate.

Place your functions in an implementation file called xmlAddress.cpp. Write a suitable driver program and place it in main.cpp.