ELEC362 - Week 6

Practical Exercises

Write a code that allows the user to insert a sequence of numbers with unknown length and is terminated when the user types any non-digit input. After that the code should:

1. Sort the number sequence and print it sorted to the screen (use sort algorithm <http://www.cplusplus.com/reference/algorithm/sort/>)
2. Replace every 4 and 8 by 2 (using replace algorithm <http://www.cplusplus.com/reference/algorithm/replace/>)
3. Copy the container into a list , and create two lists from the container, a list that has the lower half and a list that has the upper half of the container, print the two lists to the screen (use splice function of list container <http://www.cplusplus.com/reference/list/list/splice/>)
4. Swap the two list and print them to the screen (using swap algorithm <http://www.cplusplus.com/reference/algorithm/swap/>)

Questions to think about:

1. What are STL Iterators? How are they used?
2. What are Smart pointers? How do they differ from ‘raw’ pointers?
3. What is the difference between a unique pointer and a shared pointer?
4. What are the advantages and disadvantages of the waterfall model for software development?