Words and Files

Purpose:

Practise manipulating `Strings`, `switches`, `Files` and logic.

Due Date:

The completed lab assignment is due Wednesday 2008-03-05 *at the beginning of lecture*.

Palindromes

A *palindrome* is a word or phrase that reads the same when reversed. Some famous examples are:

- Madam, I'm Adam.
- Eve.
- A man, a plan, a canal, Panama.

⇒ Write a Java program that ask the user for a word, and then states whether or not the word is a palindrome. You may assume that the user only supplies lower-case words. That is, you don't need to worry about changing the case of letters or removing spaces and punctuation.

⇒ Search the the file `/usr/share/lib/dict/words` to find all of the lower-case palindromes that it contains. (Note: different systems have their dictionary files in different places. This works for `galaxy.unbc.ca`. It is rather small.)

"Abstemious" words

Some words — for instance, "abstemious" and "facetious" — contain all of the vowels exactly once, and in order. That is to say, there is one 'a', one 'e', one 'i', one 'o', and one 'u', and they occur in exactly that order.

⇒ Search the the file `/usr/share/lib/dict/words` to find all of the words that it contains that have the above property. Write the list of words to a file `abstemious.txt` in your lab directory, and print the file when you hand in your assignment.