Assignment 5

1. *my_swap* **function**   -- 20 pts.
2. **Paycheck:** source paycheck.cpp   -- 10 pts.
3. **Overloaded Hospital**   -- 30 pts.
4. Lowercase to Uppercase Converter   -- 30 pts.

    TOTAL   -- 90 pts.

Part 1

Paycheck
See source file paycheck.cpp

my_swap Function
Write a function named *my_swap* that takes two integers and swaps their values.
Example: **int a** holds value 10, **int b** holds value 15;
   my_swap(a, b); -- function is called.
   After the function call **a** holds 15, **b** holds 10.
Demonstrate this function in a complete program.
Hint: Pass parameters by reference.

Overloaded Hospital
Write a program that computes and displays the charges for a patient's hospital stay.
First, the program should ask if the patient was admitted as an in-patient or an outpatient.
If the patient was an in-patient, the following data should be entered:
*   The number of days spent in the hospital
*   The daily rate
*   Hospital medication charges
*   Charges for hospital services (lab tests, etc.)
The program should ask for the following data if the patient was an out-patient:
*   Charges for hospital services (lab tests etc.)
*   Hospital medication charges
The program should use two overloaded functions to calculate the total charges. One of
the functions should accept arguments for the in-patient data, while the other function
accepts arguments for out-patient information. Both functions should return the total
charges.
Input validation: Do not accept negative numbers for any data.

Part 2

Lowercase to Uppercase Converter

Write a program that lets the user enter a string into a character array. The program should then convert all the lowercase letters to uppercase. (If character is already uppercase, or is not a letter, it should be left alone.)
Hint: Consult the ASCII chart in Appendix A. Notice that the lowercase letters are represented by the ASCII codes 97 through 122. If you subtract 32 from any lowercase character's ASCII code, it will yield ACSII code of the uppercase equivalent.