Assignment 4

File Encryption Function	30 pts.
File Decryption Function	20 pts.
Inventory Program	50 pts.
TOTAL	**100 pts.**

Part 1

File Encryption Function

File encryption is the science of writing the contents of a file in a secret code. Your encryption function should work like a filter, reading the contents of one file, modifying the data into a code, and then writing the coded contents out to a second file. The second file will be a version of the first file, but written in a secret code.
Although complex encryption techniques exist, you should come up with a simple one of your own. For example, you could read the first file one character at a time, and add 10 to the ASCII code of each character before it is written to the second file.
Notice, that if you are encrypting character with ASCII code 251 by adding 10 to it, the resulting number 261 is not an ASCII code. Think of a way to overcome this problem.

Implement function `int encrypt(ifstream&, ofstream&)`
The function takes input and output streams as parameters. It checks if the streams are "open", connected to the files successfully. It reads from input stream, encrypts, and writes into the second stream.
The function returns an error code: 1 if the encryption was successful, 0 if the encryption failed because streams were not connected to the files.
In main(): open two files, one for reading, another one for writing, pass those to the function. Write code that handles the case when function returns a 0.
You will need to create a small text file for testing. Use Notepad for text editing.

File Decryption Function

Implement a function `int decrypt(ifstream&, ofstream&)` that decrypts a file encrypted by the `encrypt` function that you wrote as the previous problem's solution. The function returns the same error code as the encrypt function.
Test your function in main().

Part 2

Inventory Program

Write a program that uses a structure to store the following inventory data in a file:

```
Item Description
Quantity on Hand
Wholesale Cost
Retail Cost
Date Added to Inventory
```

The program should have a menu that allows the user to perform the following tasks:

- Add new record to the file.
- Display any record in the file
- Change any record in the file.

Requirement: File I/O should be done in binary mode.
Input Validation: The program should not accept quantities or wholesale or retail costs less than 0. The program should not accept dates that the programmer determines as unreasonable