**A Description of the Final Project**

**Name:**

Chang Huang

**Description:**

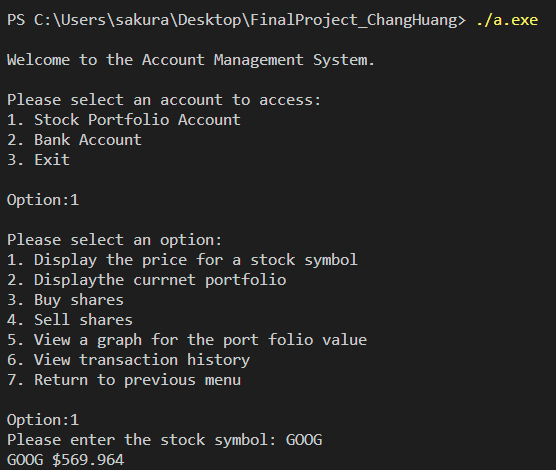
This project is the account management system. Create an abstract class account. Two derived class stock account and bank account with Cash Balance to connect them with each other. I use the real time function to provide the random price to two accounts. I want to use double-linked list to implement the storage of portfolio with others information in the event, price, stock symbol and others. I use different txt files to store the history of transaction/records. I use singleton design patterns. The detailed comments are all in my following code. Fortunately, I made it perfect and worked it out. I try my best to solve the bug and in fact I have already spent a whole day around 10 hours to solve it. The problem is the virtual function which means that a member function which is declared within a base class and is re-defined (overridden) by a derived class. When you refer to a derived class object using a pointer or a reference to the base class, you can call a virtual function for that object and execute the derived class’s version of the function.

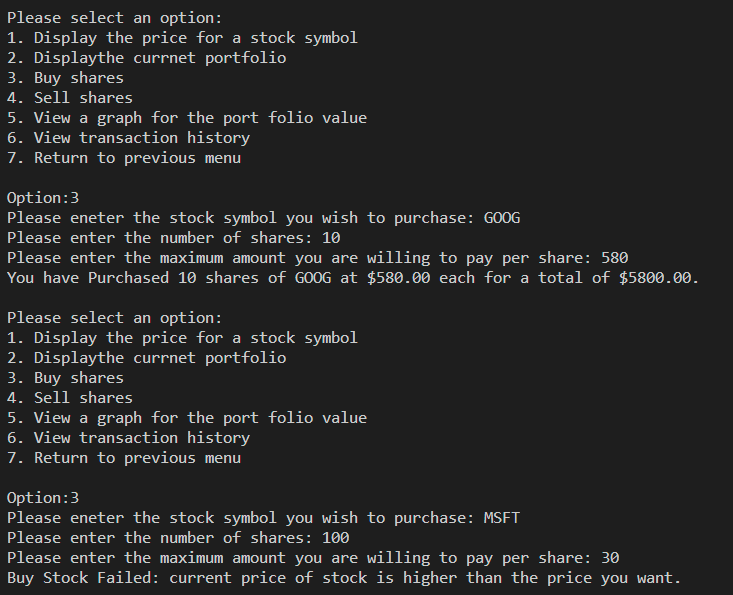
So I need to modify the function name and pay attention to their uppercase and lowercase letters, in that case to inherit the virtual function.

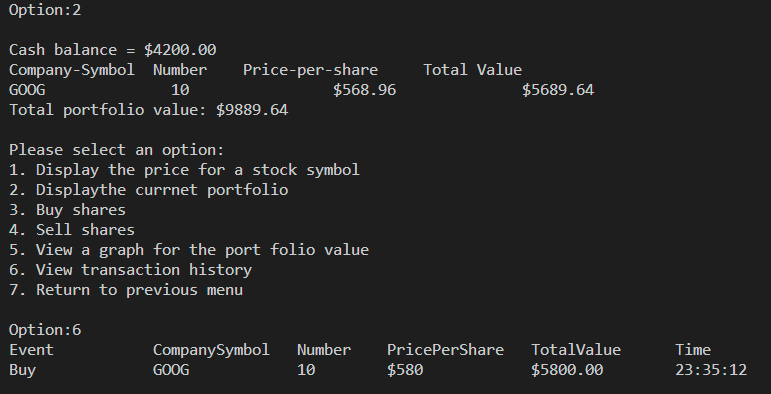
**Conclusion:**

This project has taught me a lot, and I have learned the basic usage of linked list and double-linked list. The virtual function impressed me most and I truly learned a lot from it. I have to make complaints about staying up for three nights during this period, but it is worthwhile to gain something in the end! I wish everyone a Happy Christmas!

**Screenshots:**

****

****

****