Follow Coding Standards

Day 9 Assignments

**25.** Given the following class:

class letter {

public;

virtual void display(char) = 0;

};

Derive three more classes called upper\_case, lower\_case, and error. The function display() of class upper\_case displays its input character in upper case. The function display() of class lower\_case displays its input character argument in lower case. The function display() of class error simply sounds the alarm.

To test these classes, write a class called Input that contains a pointer to a letter and a public function called get() that prompts to enter a letter of the alphabet. If the response is not a valid letter of the alphabet, instantiate the class error. Otherwise, instantiate the class whose display() function will output the letter in its opposite case. Then call upon the display() function.

In the main() function instantiate the class Input and invoke the function get().

**26.** The base class BaseList have the member variables and member functions that are common to the ascending list AList and descending list DList classes.The insert function is a pure virtual function that makes the base class abstract.The AList and DList classes add the necessary insert functions.

class BaseList {

public:

// constructor / destructor

int is\_empty() const;

int is\_full() const;

int getLength() const;

int retrieve(int pos) const;

void remove(int pos);

void clearList();

void printList();

virtual void insert ( int ) = 0;

protected:

int item[MAX\_LIST];

int length;

};

**27.** Create a CAccount class. The class contains private data members m\_accntNo(int), m\_balance(double) and m\_ccntFile(string) indicating the account number, balance and the name of the file in which the data is stored. The constructor initializes these data and also opens the file to write the header and the initial transactions to the file. Two member functions credit() and debit(), do the normal transactions and each transaction is appended to the file. Member functions readData() read the account file and print the transaction details.

int main()

{

CAccount cust1(112,15000,”cust1File”);

CAccount cust2(115,5000,”cust2File”);

cust1.debit(5000);

cust2.credit(6000);

cust1.credit(2500);

cust2.debit(500);

cust1.readData();

cust2.readData();

}

The file will have a header as below and each transaction is appended to the file as given below:

AccNo Credit/Debit Amount Balance

112 Credit 15000.00 15000.00

1. Debit 5000.00 10000.00

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