**CSCI 275 Assignment #6**
**Due: Saturday 3/5/22**
**Late: Saturday 3/12/22 (10 point penalty)**
**Points: 60**

Task:

This program works with the integer stack developed in lecture. The student writes an **Order** class splitting the class specification and implementation into two files. A company has three delivery trucks to Portland, Lewiston, and Bangor and will fill the trucks from daily orders of refrigerators.

Input:

File **todayorders.txt** contains a list of orders. The top line stores the date. Each order has an integer order identification, customer name, street address, town, and number of refrigerators. It is not known how many orders are listed.

Classes:

1. Use the **IntStack** class provided on Brightspace stored in **IntStack.h** and **IntStack.cpp**
2. Write the **Order** class, storing the class specification in **Order.h** and the class implementation in **Order.cpp**

Order:

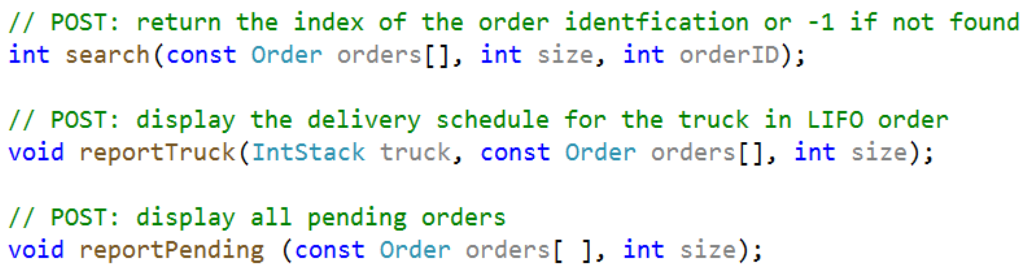
The private data include integer identification number, string customer number, string street address, string town, integer number of refrigerators ordered and string delivery date. Include default and parameterized constructors, accessors, modifiers, and a **toString** method returning a string representation of the data. The parameterized constructor should use a default argument of "Pending" for the delivery date.

Processing:

Create a dynamic array of **Order** with initial capacity 50. Code can assume there are no more than 50 orders so resizing code is not needed. Read the data into the array. Iterate over the array and display each order using the **Order toString** function. This will aid in debugging. Iterate over the array and place each order into the correct truck in LIFO fashion, Each truck can store only 6 refrigerators so report any orders that will have to wait until the next day if the truck becomes full. Set up a named constant for this value. Report the delivery schedule for each truck. Report the pending orders.

Main Functions:

Write the following three functions. Do not change the function prototype and honor the POST comment. Add other functions at your discretion.

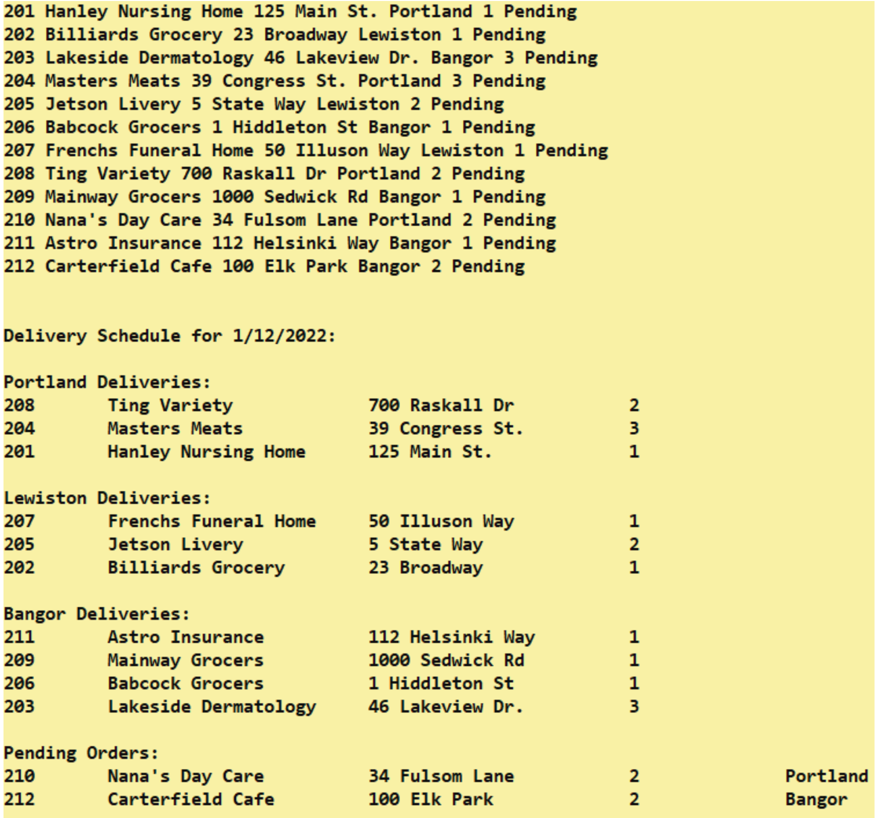


```
// POST: return the index of the order identfication or -1 if not found
int search(const Order orders[], int size, int orderID);

// POST: display the delivery schedule for the truck in LIFO order
void reportTruck(IntStack truck, const Order orders[], int size);

// POST: display all pending orders
void reportPending (const Order orders[ ], int size);
```

Required Code:

1. The **Order** class should be split into the class specification (**Order.h**) and the class implementation (**Order.cpp**).
2. Code  must use a dynamic array to store the orders data.
3. No global variables/objects may be used.
4. No break or continue out of loops; the loop should end when the loop test is false.

Sample Output:



```
201 Hanley Nursing Home 125 Main St. Portland 1 Pending
202 Billiards Grocery 23 Broadway Lewiston 1 Pending
203 Lakeside Dermatology 46 Lakeview Dr. Bangor 3 Pending
204 Masters Meats 39 Congress St. Portland 3 Pending
205 Jetson Livery 5 State Way Lewiston 2 Pending
206 Babcock Grocers 1 Hiddleton St Bangor 1 Pending
207 Frenchs Funeral Home 50 Illuson Way Lewiston 1 Pending
208 Ting Variety 700 Raskall Dr Portland 2 Pending
209 Mainway Grocers 1000 Sedwick Rd Bangor 1 Pending
210 Nana's Day Care 34 Fulsom Lane Portland 2 Pending
211 Astro Insurance 112 Helsinki Way Bangor 1 Pending
212 Carterfield Cafe 100 Elk Park Bangor 2 Pending


Delivery Schedule for 1/12/2022:

Portland Deliveries:
208       Ting Variety             700 Raskall Dr           2
204       Masters Meats            39 Congress St.          3
201       Hanley Nursing Home      125 Main St.             1

Lewiston Deliveries:
207       Frenchs Funeral Home     50 Illuson Way           1
205       Jetson Livery            5 State Way              2
202       Billiards Grocery        23 Broadway              1

Bangor Deliveries:
211       Astro Insurance          112 Helsinki Way         1
209       Mainway Grocers          1000 Sedwick Rd          1
206       Babcock Grocers          1 Hiddleton St           1
203       Lakeside Dermatology     46 Lakeview Dr.          3

Pending Orders:
210       Nana's Day Care          34 Fulsom Lane           2              Portland
212       Carterfield Cafe         100 Elk Park             2              Bangor
```

Submission:

Upload the files **Order.h**, **Order.cpp** and **Source.cpp** to Brightspace.  I will download and run code for testing.  You do not need to submit **IntStack.h** or **IntStack.cpp** files. Aternatively, you can make a .zip file of the files for uploading.

Note:  Code is not accepted that does not compile.

**Need Help?**

1. Email your question with your attached .cpp source code file. Do not attach an image or a pdf.  Do not paste your code into the email body.  I would like to download your code so I can test it as needed.

2.   Use the scheduling software on the left side of Brightspace to schedule a Zoom meeting with me. If you cannot make the listed times, email me a list of your free times.