giftList.cpp

#include<string>

#include<iostream>

Using namespace std;

class GiftListNode{

public:

GiftListNode(GiftListNode\* p, string n, int o)

: parent{p}, name{n}, order{o}

{

childL = nullptr;

childR = nullptr;

}

GiftListNode\* parent;

string name;

int order;

GiftListNode\* childL;

GiftListNode\* childR;

}

// below an empty pointer that can take us to a gift node but it doesn’t

GiftListNode\* giftTreeRoot;

void in\_order\_tree\_walk(GiftListNode\* root){

if(root != nullptr){

in\_order\_tree\_walk(root->childL);

cout << root-> name << ‘\n’;

in\_order\_tree\_walk(root->childR);

}

}

Int main(){

cout << “ On Twelve Days of Christmas, I got: ’\n’”;

GiftListNode\* node = new GiftListNode(nullptr, “Geese A-Laying”, 6);

// assigning whatever node points to the object which are geese a-laying

giftTreeRoot = node;

GiftListNode\* tempParent = giftTreeRoot;

// we are making a new object, passing in a remote to its parent which are the geese

node = new GiftListNode(tempParent, “Swans A-Swimming”, 7);

// assign to tempParent right’s child whatever object node points to which are the geese a-laying

tempParent-> childR = node;

// assign tempParent to be whatever node it points to which are the swans a-swimming

tempParent = node;

// we are making a new object, passing in a remote to its parent which are the swans

node = new GiftLIstNode(tempParent, “Pipers Piping”, 11);

//assign tempParent’s left child to be whatever node it points to which are swans a-swimming

tempParent-> childL node;

//assign tempParent to be whatever node it points to which is pipers piping

tempParent = node;

//we are making a new object, passing in a remote to its parent which are the pipers

node = new GiftListNode(giftTreeRoot, “Ladies Dancing”, 9);

//assign tempParent’s left child to be whatever node it points to which are the pipers

tempParent-> childL = node;

//assign tempParent to be whatever node it points to which are ladies dancing

tempParent = node;

// we are making a new object, passing in a remote to its parent which are french hens

node = new GiftListNode(giftTreeRoot, “French Hens”, 3);

//assign tempParent’s left child to be whatever node it points to which are ladies dancing

tempParent->childL = node;

// assign tempParent to be whatever node it points to which are french hens

tempParent = node;

// we are making a new object, passing in a remote to its parent which are turtle doves

node = new GiftListNode(giftTreeRoot, “Turtle Doves”, 2);

//assign tempParent’s right child to be whatever node it points to which are french hens

tempParent-> childR = node;

//assign tempParent to be whatever node it points to which are turtle doves

tempParent = node;

// we are making a new object, passing in a remote to its parent which are turtle doves

node = tempParent(giftTreeRoot, “Maids A-Milking”, 8);

//assign tempParent’s left child to be whatever node it points to which are turtle doves

tempParent->childL = node;

//assign tempParent to whatever node it points to which are maids a-milking

tempParent = node;

// we are making a new object, passing in a remote to its parent which are Golden Rings

node = new GiftListNode(gift TreeRoot, “Golden Rings”, 5);

//assign tempParent’s left child to be whatever node it points to which are maids a-milking

tempParent-> childL = node;

//assign tempParent to be whatever node it points to which are Golden Rings

tempParent = node;

// we are making a new object, passing in a remote to its parent which are Calling Birds

node = new GiftListNode(giftTreeRoot, “Calling Birds”, 4);

//assign tempParent’s left child to be whatever node it points to which are golden rings

tempParent-> childL = node;

//assign tempParent to be whatever node it points to which are calling birds

tempParent = node;

// we are making a new object, passing in a remote to its parent which is a Partridge in a Pear Tree

node = new GiftListNode(giftTreeRoot, “Partridge in a Pear Tree”, 1);

// assign tempParent’s right child to be whatever node it points to which are calling birds

tempParent-> childR = node;

// assign tempParent to be whatever node it points to which is a partridge in a pear tree

tempParent = node;

// we are making a new object, passing in a remote to its parent which are Drummer Drumming

node = new GiftListNode(giftTreeRoot, “Drummers Drumming”, 12);

//assign tempParent’s left child to be whatever node it points to which is a partridge in a pear tree

tempParent-> childL = node;

//assign tempParent to be whatever node it points to which are drummer’s drumming

tempParent = node;

node = new GiftListNode(giftTree, “Lord A-Leaping”, 10);

//assign tempParent to whatever node it points to which are drummer’s drumming

tempParent-> childR = node;

//assign tempParent to be whatever node it points to which are lords a-leaping

tempParent = node;