#ifndef STACK\_H

#define STACK\_H

#include "LINKEDLIST.h"

class Stack

{

public:

Stack();

virtual ~Stack();

bool isEmpty();

void push(int);

int pop();

int top();

// them ptu cuoi

void addTail(int);

// lay gia tri cuoi va xoa cuoi

int popTail();

void printStack();

// chuyen he 10 sang he 2, 8, 10

void chuyenHeCoSo(int, int);

void printStackHeCoSo();

protected:

private:

LINKEDLIST \*linkedlist;

};

#endif // STACK\_H

#include "Stack.h"

#include "iostream"

using namespace std;

Stack::Stack()

{

this->linkedlist = new LINKEDLIST();

}

Stack::~Stack()

{

//dtor

}

bool Stack::isEmpty()

{

if(this->linkedlist->Gethead() == nullptr) return true;

return false;

}

// them ptu vao dau

void Stack::push(int val)

{

this->linkedlist->InsertFirst(new ELEMENT(val));

}

// lay gtri ptu tren cung ra khoi ngan xep

int Stack::pop()

{

int val = this->linkedlist->Gethead()->Getdata();

this->linkedlist->DeleteFirst();

return val;

}

// lay gia tri ptu tren cung ra khoi ngan xep

int Stack::top()

{

return this->linkedlist->Gethead()->Getdata();

}

void Stack::addTail(int val)

{

this->linkedlist->InsertTail(new ELEMENT(val));

}

int Stack::popTail()

{

int p = this->linkedlist->Gettail()->Getdata();

this->linkedlist->DeleteTail();

return p;

}

void Stack::printStack()

{

if(isEmpty())

{

cout << "\nSTACK RONG, KHONG LAY DUOC PHAN TU" << endl;

}

else

{

this->linkedlist->Travel();

}

}

// chuyen he 10 sang he 2, 8, 10

void Stack::chuyenHeCoSo(int coSoCanChuyen, int coSo10)

{

while(coSo10 != 0)

{

int x = coSo10 % coSoCanChuyen;

push(x);

coSo10 /= coSoCanChuyen;

}

}

void Stack::printStackHeCoSo()

{

cout << "\nKET QUA: ";

while(!isEmpty())

{

int x = pop();

if(x < 10)

{

cout << x;

}

else

{

if(x == 10)

{

cout << 'A';

}

if(x == 11)

{

cout << 'B';

}

if(x == 12)

{

cout << 'c';

}

if(x == 13)

{

cout << 'D';

}

if(x == 14)

{

cout << 'E';

}

if(x == 15)

{

cout << 'F';

}

}

}

}

#include <iostream>

#include "Stack.h"

using namespace std;

int main()

{

// int x;

// Stack \*s=new Stack();

// for(int i=0; i < 3; i++)

// {

// cout << "\nNhap phan tu "<< i+1<<": "; cin >> x;

// s->push(x);

// }

// for(int i=0; i<4; i++)

// {

// if(s->isEmpty())

// {

// cout << "\nSTACK RONG, KHONG LAY DUOC PHAN TU" << endl;

// }

// else

// {

// int val = s->pop();

// cout << "\nGia tri lay ra: " << val;

// }

// }

Stack \*s = new Stack();

int coSo10;

cout << "\nNhap gia tri he thap phan: "; cin >> coSo10;

int coSoCanChuyen;

cout<< "\nNhap co so can chuyen (2, 8, 16): "; cin >> coSoCanChuyen;

s->chuyenHeCoSo(coSoCanChuyen, coSo10);

s->printStackHeCoSo();

return 0;

}