#include<iostream>

#include<stdlib.h>

using namespace std;

struct node

{

char label[60];

int chcount;

node \*child[50];

}\*root;

class general

{

public:

void insert();

void display();

general()

{

root == NULL;

}

};

void general::insert()

{

int secount;

root = new node();

cout<<"Enter the name of book:"<<endl;

cin>>root->label;

cout<<"Enter the total number of chapters in book:"<<endl;

cin>>root->chcount;

for(int i=0;i<root->chcount;i++)

{

root->child[i] = new node();

cout<<"Enter the name of chapters:"<<endl;

cin>>root->child[i]->label;

cout<<"Enter the number of sections:"<<endl;

cin>>root->child[i]->chcount;

for(int j=0;j<root->child[i]->chcount;j++)

{

root->child[i]->child[j] = new node();

cout<<"Enter the name of section:"<<endl;

cin>>root->child[i]->child[j]->label;

cout<<"Enter the number of sub sections:"<<endl;

cin>>root->child[i]->child[j]->chcount;

for(int k=0; k<root->child[i]->child[j]->chcount; k++)

{

root->child[i]->child[j]->child[k] = new node();

cout<<"Enter the name of sub section:"<<endl;

cin>>root->child[i]->child[j]->child[k]->label;

}

}

}

}

void general::display()

{

if(root != NULL)

{

cout<<"\*\*\*\* Hierarchy of Book \*\*\*\*"<<endl;

cout<<"Book Name is"<<root->label<<endl;

for(int i=0; i<root->chcount; i++)

{

cout<<"---- "<<root->child[i]->label<<endl;

for(int j=0; j<root->child[i]->chcount; j++)

{

cout<<"-----------"<<root->child[i]->child[j]->label<<endl;

for(int k=0; k<root->child[i]->child[j]->chcount; k++)

{

cout<<"--------------------- "<<root->child[i]->child[j]->child[k]->label<<endl;

}

}

}

}

}

int main()

{

general g;

int ch;

do

{

cout<<"~~ MENU ~~"<<endl;

cout<<"1. Insert."<<endl;

cout<<"2. Display."<<endl;

cout<<"Enter the choice:"<<endl;

cin>>ch;

switch(ch)

{

case 1: g.insert();

break;

case 2: g.display();

break;

}

}while(ch<3);

}