**#include<iostream>**

**using namespace std;**

**struct student**

**{**

**int code;**

**char name[80];**

**float grade1;**

**float grade2;**

**int flag;**

**};**

**struct employee{**

**int id;**

**char name[80];**

**float salary;**

**int flag;**

**};**

**struct department**

**{**

**int flag;**

**union**

**{**

**student s;**

**employee e;**

**}person;**

**};**

**struct Node {**

**department info;**

**Node \*next;**

**};**

**int main(){**

**char c;**

**int flag;**

**Node \*list, \*temp;**

**cout<<"if you want to enter data enter y: "<<endl;**

**cin>>c;**

**if(c!='y'){**

**cout<<"thanks"<<endl;**

**exit(0);**

**}**

**list = new Node;**

**cout<<"0 - for student "<<endl;**

**cout<<"1- for employee"<<endl;**

**cout<<"Enter your choice: ";**

**cin>>flag;**

**switch (flag){**

**case 0:**

**cout<<"please Enter student code: ";**

**cin>>list->info.person.s.code;**

**cout<<"please Enter student name: ";**

**cin>>list->info.person.s.name;**

**cout<<"please Enter student first grade: ";**

**cin>>list->info.person.s.grade1;**

**cout<<"please Enter student seconed grade: ";**

**cin>>list->info.person.s.grade2;**

**list->next = NULL;**

**list->info.flag=0;**

**break;**

**case 1:**

**cout<<"Enter employee id: ";**

**cin>>list->info.person.e.id;**

**cout<<"Enter employee name: ";**

**cin>>list->info.person.e.name;**

**cout<<"Enter employee salary: ";**

**cin>>list->info.person.e.salary;**

**list->next = NULL;**

**list->info.flag=1;**

**break;**

**default:**

**cout << "Error Invalid!" << endl;**

**break;**

**}**

**cout<<"if you want to enter data enter y: "<<endl;**

**cin>>c;**

**temp = list;**

**while (c == 'y'){**

**temp->next = new Node;**

**temp = temp->next;**

**cout<<"0 - for student "<<endl;**

**cout<<"1- for employee"<<endl;**

**cout<<"Enter your choice: ";**

**cin>>flag;**

**switch (flag)**

**{**

**case 0:**

**cout<<"please Enter student code: ";**

**cin>>temp->info.person.s.code;**

**cout<<"please Enter student name: ";**

**cin>>temp->info.person.s.name;**

**cout<<"please Enter student first grade: ";**

**cin>>temp->info.person.s.grade1;**

**cout<<"please Enter student seconed grade: ";**

**cin>>temp->info.person.s.grade2;**

**temp->next = NULL;**

**temp->info.flag = 0;**

**break;**

**case 1:**

**cout<<"Enter employee id: ";**

**cin>>temp->info.person.e.id;**

**cout<<"Enter employee name: ";**

**cin>>temp->info.person.e.name;**

**cout<<"Enter employee salary: ";**

**cin>>temp->info.person.e.salary;**

**temp->next = NULL;**

**temp->info.flag = 1;**

**break;**

**default:**

**cout << "Error Invalid!" << endl;**

**break;**

**}**

**cout << "If you want to Enter anothor info type y : "; cin >> c;**

**}**

**cout<<endl<<"Displaying department Record: "<<endl;**

**temp = list;**

**while(temp!=NULL)**

**{**

**switch(temp->info.flag)**

**{**

**case 0:**

**cout<<"stutent record : "<<endl;**

**cout<<"Code : "<<temp->info.person.s.code<<endl;**

**cout<<"Name : "<<temp->info.person.s.name<<endl;**

**cout<<"F grade : "<<temp->info.person.s.grade1<<endl;**

**cout<<"S grade : "<<temp->info.person.s.grade2<<endl;**

**cout<<endl;**

**break;**

**case 1:**

**cout<<"employee record : "<<endl;**

**cout<<"id : "<<temp->info.person.e.id<<endl;**

**cout<<"Name : "<<temp->info.person.e.name<<endl;**

**cout<<"Salary : "<<temp->info.person.e.salary<<endl;**

**cout<<endl;**

**break;**

**}**

**temp = temp->next;**

**}**

**return 0;**

**}**

**------- OutPut-------**

