

Code:

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#include<iostream>

#include<stdlib.h>

#include<string.h>

#include<iomanip>


using namespace std;

static int cnt;

class stud
{
public:
char name[20];

int roll;

};

class s2 : public virtual stud
{
public : char sub[10];

int scode;

int sem;

char div[2];

};

class s1:virtual public stud
{
public : char addr[30];

int pin;

};

class sdata:public s1,public s2
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{
    public : int subc1;

        int im1;

        int um1;
};

int main()
{
    sdata m[100];
    char c='y',str2[10];
    int op,n,i,j,flag=0,rl,r;
    do
    {
        cout<<"\n * * * * * Menu * * * * *";

        cout<<"\n 1. Build Table \n 2. List a Table \n 3. insert new entry";

        cout<<"\n 4. Delete an entry \n 5. Edit an entry \n 6. Search for record \n Enter your choice
        :";

        cin>>op;
        switch(op)
        {
            case 1 : cout<<"\n building new Table";

                cout<<"\n Enter total number of Entries :";

                cin>>n;

                for(i=0;i<n;i++)
                {

                    cout<<"\n Enter Name of Student :";

                    cin>>m[i].name;

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cout<<"\n Enter Roll number  :";

    cin>>m[i].roll;

cout<<"\n Enter Name of Subject :";

    cin>>m[i].sub;

cout<<"\n Enter Subject code for Subject "<<m[i].sub<<":";

    cin>>m[i].scode;

cout<<"\n Enter internal marks for Subject "<<m[i].sub<<":";

    cin>>m[i].im1;

cout<<"\n Enter University exam marks for Subject "<<m[i].sub<<":";

    cin>>m[i].um1;

cnt++;

    }

    break;

case 2 : cout<<"\n Entries in Table are :";

    cout<<setw(20)<<"\n Name_of_Student"<<setw(8)<<"Roll
No"<<setw(12)<<"Subject"<<setw(10)<<"Sub_code"<<setw(12)<<"Internal"<<setw(12)<<"Exter
nal";

    cout<<"\n-----";

    for(i=0;i<cnt;i++)

    {

cout<<endl<<setw(10)<<m[i].name<<setw(10)<<m[i].roll<<setw(12)<<m[i].sub<<setw(10)<<m[i]
].scode<<setw(12)<<m[i].im1<<setw(12)<<m[i].um1;

    }

    break;

case 3:j=cnt;

    cout<<"\n Enter Name of Student :";

    cin>>m[j].name;

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cout<<"\n Enter Roll number   :";
    cin>>m[j].roll;
cout<<"\n Enter Name of Subject :";
    cin>>m[j].sub;
cout<<"\n Enter Subject code for Subject "<<m[j].sub<<": ";
    cin>>m[j].scode;
cout<<"\n Enter internal marks for Subject "<<m[j].sub<<": ";
    cin>>m[j].im1;
cout<<"\n Enter University exam marks for Subject "<<m[j].sub<<": ";
    cin>>m[j].um1;
cnt++;
    break;
case 4: cout<<"\n Enter record number to delete :";
    cin>>r;
    if(r>0 && r<=cnt)
    {
        j=r-1;
        for(i=j;i<cnt-1;i++)
        {
            m[i]=m[i+1];
        }
        cnt--;
        cout<<"\n Record Deleted Successfully ";
    }
    else
        cout<<"\n Entered wrong record number,please enter correct record number \n";
    break;

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case 5: cout<<"\n Enter record number to edit :";

        cin>>r;

        if(r>0 && r<=cnt) {

            j=r-1;

            cout<<"\n Select Field to Edit : 1. Name \n 2. Roll Number \n 3. Subject Name \n4.Subject
code \n5. Internal Marks \n6. Universirt Exam marks \n Choice : ";

            cin>>op;

            switch(op)

            {

            case 1 : cout<<"\n Enter New Name of student :";

                cin>>m[j].name;

                break;


            case 2 : cout<<"\n Enter updated Roll Number of student :";

                cin>>m[j].roll;

                break;

            case 3 :cout<<"\n Enter New Name of Subject :";

                cin>>m[j].sub;

                break;


            case 4 : cout<<"\n Enter updated Subject code for Subject "<<m[j].sub<<": ";

                cin>>m[j].scode;

                break;

            case 5 : cout<<"\n Enter updated internal marks for Subject "<<m[j].sub<<": ";

                cin>>m[j].im1;

                break;

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case 6 : cout<<"\n Enter Updated University exam marks for Subject "<<m[j].sub<<" :";
        cin>>m[j].um1;
break;
    }
}
else
    cout<<"\n Entered wrong record number,please enter correct record number \n";
    break;
case 6: cout<<"\n Select data type to search :\n 1. Name \n 2.Roll Number \n Choice :";
        cin>>op;
        switch(op)
        {
        case 1:cout<<"\n Enter Name to search in table :";
                cin>>str2;
                flag=0;
                for(i=0;i<cnt;i++)
                {
                if(strcmp(m[i].name,str2)==0)
                {
                flag=1;
                cout<<"\nRecord found for name "<<str2<<". Details are : ";
                cout<<"\n Name   :"<<str2<<"\t Roll :"<<m[i].roll;
                cout<<"\n Subject :"<<m[i].sub<<"\t Subject Code :"<<m[i].scode;
                cout<<"\n Internal:"<<m[i].im1<<"\t External :"<<m[i].um1;
                }
                }
        else

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        continue;
    }
    if(flag==0)
        cout<<"\n No record found";
    break;
case 2 : cout<<"\n Enter roll number to search in table :";
    cin>>rl;
    flag=0;
    for(i=0;i<cnt;i++)
    {
        if(m[i].roll==rl)
        {
            flag=1;
            cout<<"\nRecord found for Roll number "<<rl<<". Details are : ";
            cout<<"\n Name   : "<<m[i].name<<"\t Roll : "<<rl;
            cout<<"\n Subject : "<<m[i].sub<<"\t Subject Code : "<<m[i].scode;
            cout<<"\n Internal: "<<m[i].im1<<"\t External : "<<m[i].um1;
        }
    }
    else
        continue;
}
if(flag==0)
    cout<<"\n No record found";
}
break;
}
cout<<"\n Do you want to continue (y/n) ? : ";

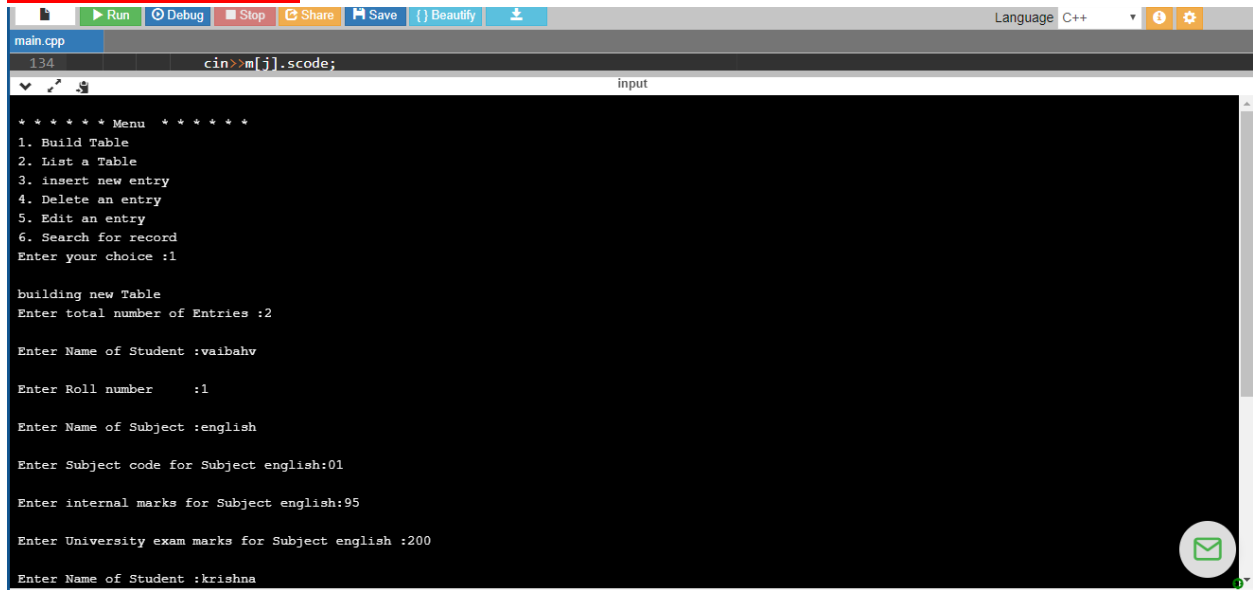
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cin>>c;

} while(c=='y' || c=='Y');

}
```

Code Output:



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main.cpp
134      cin>>m[j].score;
      input

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1. Build Table
2. List a Table
3. insert new entry
4. Delete an entry
5. Edit an entry
6. Search for record
Enter your choice :1

building new Table
Enter total number of Entries :2

Enter Name of Student :vaibahv

Enter Roll number      :1

Enter Name of Subject :english

Enter Subject code for Subject english:01

Enter internal marks for Subject english:95

Enter University exam marks for Subject english :200

Enter Name of Student :krishna
```