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#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <ctype.h>

struct xrec1
{
    int m;
    int d;
    int y;
};
typedef struct xrec1 Date;

struct xrec2
{
    char fName[10];
    char lName[10];
    char iD[5];
    double gpa;
    Date enterDate;
};
typedef struct xrec2 Student;

Student getStudent(void);
void printStudent(Student x);
void printDate(Date x);
Student getStudentR(void);

Student findTheBest( Student * x , int n);

int main()
{
    Student sts[5];int i;Student * r;
    Student st1,st2,st3,st4;
    Student st5 = {"Lisa","Smith","11111",4.5,{5,25,2018}};
    Date xDate;
    xDate = st5.enterDate;
    srand(time(NULL));
    printf("===>>>%d\n",xDate.d);
    st1 = getStudent();
    printStudent(st1);

    r = &st5;
    printStudent(*r);

    for(i = 0 ; i < 5 ; i++)
    {
        sts[i] = getStudentR();
        printStudent(sts[i]);
    }
    printf("*****\n");
    printStudent(findTheBest(sts,5));

    return 0;
}
Student findTheBest( Student * x , int n)

```

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{   Student xSt; int i; double max=0.0;
    for(i= 0 ; i < n; i++)
    {
        if(x[i].gpa >= max)
        {
            max = x[i].gpa;
            xSt = x[i];
        }
    }
    return xSt;
}

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void printStudent(Student x)
{
    printf("First Name:%s\n",x.fName);
    printf("Last  Name:%s\n",x.lName);
    printf("      ID:%s\n",x.iD);
    printf("      GPA:%.2f\n",x.gpa);
    printDate(x.enterDate);
}
void printDate(Date x)
{
    printf("Mount:%d:Day:%d:Year:%d\n",x.m,x.d,x.y);
}
Student getStudentR(void)
{
    Student xSt; Date xDate={6,24,2019};int r,g;

    char *    f[]
    ={"Lisa","Susan","Jack","Marry","Su","Lee","Blair","John","Joe","Kim"};

    char *    ln[]    ={"L-Lisa","L-Susan","L-Jack","L-Marry","L-Su","L-Lee","L-
Blair","L-John","L-Joe","L-Kim"};
    char *    iD[]
    ={"1111","2222","3333","4444","5555","6666","7777","8888","9999","0000"};

    r = rand()% 10;
    g = rand()% 5;
    strcpy(xSt.fName,f[r]); strcpy(xSt.lName,ln[r]); strcpy(xSt.iD , iD[r]);
    xSt.gpa = g;xSt.enterDate= xDate;

    return xSt;
}

Student getStudent(void)
{
    Student xSt; Date xDate;
    printf("Enter FName>>>");
}

```

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    fflush(stdin);
    gets(xSt.fName);
    printf("Enter LName>>>");
    fflush(stdin);
    gets(xSt.lName);
    printf("Enter ID>>>");
    fflush(stdin);
    gets(xSt.iD);
    printf("Enter gpa>>");
    scanf("%lf", &xSt.gpa);
    printf("Enter m d y>>");
    scanf("%d %d %d",&xDate.m,&xDate.d,&xDate.y);

    xSt.enterDate = xDate;
    return xSt;
}
```