Institute of Technology of Cambodia

Department of Information

Technology and Communication

Subject: Algorithms and Programming 1

Professor: BOU CHANNA

Assignment: TD structure

Group: I3-GIC

Student:	**Name**	**ID**
	BUNLY SREY PHEM	e20190043
	LUON RAKSA	e20190548
	LY POCVENH	e20190564
	NGOV SOCHEATDALIN	e20190679
	SOR SOPHEAK	e20191066
	VEN THON	e20191250

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Contents

Practice

Write a C program for following exercise:

1. Create aa student structure then create an array of 5 elements.
2. Write a procedure to display the information of all students.
3. Write a function to find the highest score of 5 students.
4. Write a procedure to display the information of student who has highest.
5. Write a procedure to display the information of student who has the lowest score.

TD-practice.c X

```c
#include<stdio.h>
//practice
struct student{

    char name[10];
    int score;
    int id;
};
struct student s[];
void input(int n){

    for(int i=0;i<n;i++)
        {   printf("\t*****Student #%d***\n\n",i+1);
            printf("Enter name: ");scanf("%s",&s[i].name);
            printf("Enter ID: ");scanf("%d",&s[i].id);
            printf("Enter score: ");scanf("%d",&s[i].score);
            printf("\n");
        }
}
void displayname(int n)
{
    printf("Display all students.\n");
    printf("\n\tNmae \t ID \t Score\n");
    for(int i=0;i<n;i++)
    {
        printf("\t%5s \t%3d \t%5d\n",s[i].name,s[i].id,s[i].score);
    }
}
void Finfscore(int n){
    int max = s[0].score;
    for(int i=0;i<n;i++)
    {
        if(max < s[i].score)
        {
            max = s[i].score;
        }
    }
    printf("\n\tThe hightest score of student is : %d\n",max);
}
```

```c
void Displayhighestscore_student(int n){
    int max;
    for(int i=0;i<n;i++){
            if(max < s[i].score)
        {
            max = s[i].score;
        }
    }
     printf("\n\tName \t ID \t Score\n");
    for(int i=0;i<n;i++)
    {
        if(max == s[i].score)
        {
            printf("\t%5s \t%3d \t%5d\n\n",s[i].name,s[i].id,s[i].score);
        }
    }
}
void Displaylowestscore_student(int n){
    int min;
    for(int i=0;i<n;i++){
            if(min > s[i].score)
        {
            min = s[i].score;
        }
    }
     printf("\n\tName \t ID \t Score\n");
    for(int i=0;i<n;i++)
    {
        if(min == s[i].score)
        {
            printf("\t%5s \t%3d \t%5d\n",s[i].name,s[i].id,s[i].score);
        }
    }
}
main(){
    int n;
    struct student s[n];
    printf("1.Enter a number of student: ");scanf("%d",&n);
    input(n);
    displayname(n);
    printf("\n2.Find the highest score .");
    Finfscore(n);
    printf("\n3.Display the information of the student who has highest score.\n");
    Displayhighestscore_student(n);
    printf("\n4.Display the information of the student who has lowest score.\n");
    Displaylowestscore_student(n);
}
```

```
"D:\c++\enumerated and struct\TD-practice.exe"
Enter a number of student: 5

        *****Student #1***
Enter name: junny
Enter ID: 001
Enter score: 78

        *****Student #2***
Enter name: jin
Enter ID: 002
Enter score: 90

        *****Student #3***
Enter name: nita
Enter ID: 003
Enter score: 50

        *****Student #4***
Enter name: sok
Enter ID: 006
Enter score: 85

        *****Student #5***
Enter name: dara
Enter ID: 009
Enter score: 60

1.Display all students.

        Nmae      ID       Score
        junny      1        78
          jin      2        90
         nita      3        50
          sok      6        85
         dara      9        60
```

```
2.Find the highest score .

    The hightest score of student is : 90

3.Display the information of the student who has highest score.

    Name      ID       Score
     jin       2        90


4.Display the information of the student who has lowest score.

     Name      ID       Score
     nita       3        50
```

TD structure

Problem 1

Write a structure represent the product's entity that consists of id, name, produce date, expire date and color (we have 5 colors: red, yellow, blue, white and black).

```c
#include<stdio.h>
//TD
enum color {
    red,yellow,blue, white,black
};
struct date{
    int day;
    int month;
    int year;
};
struct Product{
    char id[20];
    char name[20];
    struct date p;
    struct date exp;
    enum color c;
    struct date d;

};
```

Problem 2

The same question as 1 exercise, we add "seller" field that is a structure of seller which consists of name, seller type, and seller's address. Address of seller also a structure consists of house number, road and city. The seller type can be VIP, normal, gold, silver.

```c
TD-Ex2.c  X
#include<stdio.h>
//TD
enum color {
     red,yellow,blue, white,black
};
struct date{
     int day;
     int month;
     int year;
};
struct Product{
     char id[20];
     char name[20];
     struct date p;
     struct date exp;
     enum color c;
     struct date d;

};
enum Type{
     VIP, normal, gold, silver
};
struct adddress{

     int housenum;
     int road;
     char city;

};
struct seller{

     char name[20];
     char seller_type[20];
     char seller_address[50];

};
```

Problem 3

Write a program that store 10 products and allows to define closest expire date, farest expired date.

```
TD-Ex3.c  X   TD-Ex4.c  X
#include<stdio.h>
#include<string.h>
#define ll long long
enum Color{
    red , yelelow , blue , white , black
};
struct Date{
    int p_day;
    int p_month;
    int p_year;
    int e_day;
    int e_month;
    int e_year;
};
struct Produce {
    char id[20];
    char name[20];
    struct Date date;
    enum Color color;
};


ll find_date(int p_day , int p_month , int p_year , int e_day , int e_month , int e_year ){
    int value;
        value = 0ll + e_day + e_month*30 + e_year*365 - p_day - p_month*30 - p_year*365;
    return value;
}

struct Produce data[10];
int main(){
    ll a[8] = {};
    for ( int i = 0 ; i < 10 ; ++i ){
        printf("Produce #%d\n",i+1);
        printf("Please input the produce id: ");
        scanf("%s",data[i].id);
        printf("Please input the produce name: ");
        scanf("%s",data[i].name);
        printf("Please input the produce date/month/year: ");
        scanf("%d%d%d",&data[i].date.p_day,&data[i].date.p_month,&data[i].date.p_year);
        printf("Please input the produce expired date/month/year: ");
        scanf("%d%d%d",&data[i].date.e_day,&data[i].date.e_month,&data[i].date.e_year);
        printf("\n");
    }
    for ( int i = 0 ; i < 10 ; ++i ){
        a[i] = find_date(data[i].date.p_day,data[i].date.p_month,data[i].date.p_year,data[i].date.e_day,data[i].date.e_month,data[i].date.e_year);
    }
    int max = a[0] , min = a[0];

    for ( int i = 0 ; i < 10 ; ++i ){
        if ( max < a[i])
            max = a[i];
        if ( min > a[i])
            min = a[i];
    }
    for ( int i = 0 ; i < 3 ; ++i ){
        if ( a[i] == max ){
            printf("\n\tThe farest expired day is produce #%d\n",i+1);
        }
        if( a[i] == min ){
            printf("\n\tThe closet expired day is produce #%d",i+1);
        }
    }
}
```

```
Produce #1
Please input the produce id: 78
Please input the produce name: coco
Please input the produce date/month/year: 14 5 2019
Please input the produce expired date/month/year: 4 5 2020

Produce #2
Please input the produce id: 85
Please input the produce name: pepi
Please input the produce date/month/year: 7 5 2014
Please input the produce expired date/month/year: 2 2 2016

Produce #3
Please input the produce id: 7
Please input the produce name: sting
Please input the produce date/month/year: 14 5 2020
Please input the produce expired date/month/year: 25 6 2021

Produce #4
Please input the produce id: 55
Please input the produce name: vita
Please input the produce date/month/year: 24 1
2020
Please input the produce expired date/month/year: 5 5 2026

Produce #5
Please input the produce id: 98
Please input the produce name: oral
Please input the produce date/month/year: 7 8 2020
Please input the produce expired date/month/year: 4 5 2023

Produce #6
Please input the produce id: 66
Please input the produce name: tree
Please input the produce date/month/year: 8 8 2014
Please input the produce expired date/month/year: 2 2 2015

Produce #7
Please input the produce id: 88
Please input the produce name: mouse
Please input the produce date/month/year: 1 1 2020
Please input the produce expired date/month/year: 31 12 2020

Produce #8
Please input the produce id: tree
Please input the produce name: tre
Please input the produce date/month/year: 5 5 2016
Please input the produce expired date/month/year: 22 2 2020

Produce #9
Please input the produce id: 77
Please input the produce name: bag
Please input the produce date/month/year: 7 8 2020
Please input the produce expired date/month/year: 5 5 2022

Produce #10
Please input the produce id: 33
Please input the produce name: apple
Please input the produce date/month/year: 4 4 2020
Please input the produce expired date/month/year: 4 5 2023


        The farest expired day is produce #4

        The closet expired day is produce #6
```

Problem 4

Given that a structure represents the information of person: name, his father's name, mother's name. write a procedure to display the name of person's parent. Suppose we have 100 data of people.

```c
#include<stdio.h>
struct  {
    char p_name[10];
    char f_name[10];
    char m_name[10];

}person[100];

int main(){

    for(int i=0;i<=100;i++)
    {
        printf("\t ****Person #%d***\n",i+1);
        printf("Enter your name: ");scanf("%s",&person[i].p_name);
        printf("Enter your father name: ");scanf("%s",&person[i].f_name);
        printf("Enter your mother name: ");scanf("%s",&person[i].m_name);
        printf("\n");
    }
    printf("\n\n\tFATHER NAME \t MOTHER NAME\n\n");
    for(int i=0;i<=100;i++)
    {
        printf("\t\t%s  \t\t%s\n",person[i].f_name,person[i].m_name);
    }
    printf("\n");
}
```

```
 "D:\c++\enumerated and struct\TD-Ex4.exe"
        ****Person #1***            ****Person #7***               ****Person #15***
Enter your name: Jun          Enter your name: lin         Enter your name: nha
Enter your father name: John  Enter your father name: kon  Enter your father name: po
Enter your mother name: Bella Enter your mother name: nell Enter your mother name: rasa

        ****Person #2***            ****Person #8***               ****Person #16***
Enter your name: Junny        Enter your name: tin         Enter your name: venh
Enter your father name: Jin   Enter your father name: nu   Enter your father name: ra
Enter your mother name: Han   Enter your mother name: na   Enter your mother name: tin

        ****Person #3***            ****Person #9***               ****Person #17***
Enter your name: nak          Enter your name: leng        Enter your name: phearum
Enter your father name: sok   Enter your father name: heng Enter your father name: sun
Enter your mother name: ta    Enter your mother name: jing Enter your mother name: rin

        ****Person #4***            ****Person #10***              ****Person #18***
Enter your name: dara         Enter your name: nuth        Enter your name: nin
Enter your father name: muny  Enter your father name: ny   Enter your father name: houy
Enter your mother name: nha   Enter your mother name: pich Enter your mother name: mey

        ****Person #5***            ****Person #11***              ****Person #19***
Enter your name: neath        Enter your name: ya          Enter your name: vanna
Enter your father name: nang  Enter your father name: nith Enter your father name: dy
Enter your mother name: neth  Enter your mother name: tey  Enter your mother name: neth

        ****Person #6***            ****Person #12***              ****Person #20***
Enter your name: nang         Enter your name: phea        Enter your name: nak
Enter your father name: leng  Enter your father name: kim  Enter your father name: vicha
Enter your mother name: kema  Enter your mother name: thea Enter your mother name: sopheak

        ****Person #7***            ****Person #13***              ****Person #21***
Enter your name: lin          Enter your name: ly          Enter your name: makara
Enter your father name: kon   Enter your father name: lom  Enter your father name: horng
Enter your mother name: nell  Enter your mother name: phala Enter your mother name: rong

        ****Person #8***            ****Person #14***              ****Person #22***
Enter your name: tin          Enter your name: ling        Enter your name: nine
Enter your father name: nu    Enter your father name: vith Enter your father name: one
Enter your mother name: na    Enter your mother name: ta   Enter your mother name: two
```

```
        ****Person #23***              ****Person #31***
Enter your name: thida          Enter your name: june
Enter your father name: pavat   Enter your father name: august
Enter your mother name: nith    Enter your mother name: na

        ****Person #24***              ****Person #32***
Enter your name: oun            Enter your name: step
Enter your father name: nang    Enter your father name: reach
Enter your mother name: pha     Enter your mother name: oun

        ****Person #25***              ****Person #33***
Enter your name: view           Enter your name: mix
Enter your father name: rong    Enter your father name: earth
Enter your mother name: vika    Enter your mother name: nine

        ****Person #26***              ****Person #34***
Enter your name: lin            Enter your name: dom
Enter your father name: pich    Enter your father name: da
Enter your mother name: vy      Enter your mother name: bopha

        ****Person #27***              ****Person #35***
Enter your name: leng           Enter your name: lick
Enter your father name: venh    Enter your father name: suly
Enter your mother name: jiny    Enter your mother name: neang

        ****Person #28***              ****Person #36***
Enter your name: sam            Enter your name: bou
Enter your father name: eight   Enter your father name: long
Enter your mother name: ai      Enter your mother name: jiso

        ****Person #29***              ****Person #37***
Enter your name: won            Enter your name: lisa
Enter your father name: jin     Enter your father name: like
Enter your mother name: kim     Enter your mother name: dany

        ****Person #30***              ****Person #38***
Enter your name: lou            Enter your name: sky
Enter your father name: heng    Enter your father name: star
Enter your mother name: juny    Enter your mother name: cloud
```

```
        ****Person #38***
Enter your name: sky
Enter your father name: star
Enter your mother name: cloud

        ****Person #39***
Enter your name: black
Enter your father name: white
Enter your mother name: green

        ****Person #40***
Enter your name: ball
Enter your father name: tena
Enter your mother name: sola

        ****Person #41***
Enter your name: jay
Enter your father name: thong
Enter your mother name: joy

        ****Person #42***
Enter your name: rose
Enter your father name: off
Enter your mother name: kimly

        ****Person #43***
Enter your name: taew
Enter your father name: mark
Enter your mother name: yaya

        ****Person #44***
Enter your name: teoy
Enter your father name: go
Enter your mother name: sing

        ****Person #45***
Enter your name: gun
Enter your father name: kon
Enter your mother name: jing

        ****Person #46***
Enter your name: fa
Enter your father name: dun
Enter your mother name: wani

        ****Person #47***
Enter your name: key
Enter your father name: kai
Enter your mother name: junny

        ****Person #48***
Enter your name: lis
Enter your father name: pon
Enter your mother name: funny

        ****Person #49***
Enter your name: sun
Enter your father name: night
Enter your mother name: day

        ****Person #50***
Enter your name: vine
Enter your father name: wine
Enter your mother name: jane

        ****Person #51***
Enter your name: bank
Enter your father name: kin
Enter your mother name: mina

        ****Person #52***
Enter your name: min
Enter your father name: veth
Enter your mother name: tony

        ****Person #53***
Enter your name: bam
Enter your father name: jackson
Enter your mother name: rin

        ****Person #54***
Enter your name: tobe
Enter your father name: john
Enter your mother name: jae

        ****Person #55***
Enter your name: ravi
Enter your father name: lee
Enter your mother name: hary

        ****Person #56***
Enter your name: hinata
Enter your father name: soyo
Enter your mother name: suga

        ****Person #57***
Enter your name: eren
Enter your father name: fiji
Enter your mother name: momo

        ****Person #58***
Enter your name: sreyha
Enter your father name: pat
Enter your mother name: mari

        ****Person #59***
Enter your name: parn
Enter your father name: pon
Enter your mother name: sina

        ****Person #60***
Enter your name: new
Enter your father name: tay
Enter your mother name: gun

        ****Person #61***
Enter your name: pory
Enter your father name: ban
Enter your mother name: ella

        ****Person #62***
Enter your name: chigo
Enter your father name: kenny
Enter your mother name: nuny

        ****Person #63***
Enter your name: wat
Enter your father name: far
Enter your mother name: tin

        ****Person #64***
Enter your name: litan
Enter your father name: pin
Enter your mother name: mana

        ****Person #65***
Enter your name: tynit
Enter your father name: nik
Enter your mother name: kao

        ****Person #66***
Enter your name: mino
Enter your father name: boy
Enter your mother name: janny

        ****Person #67***
Enter your name: peach
Enter your father name: mark
Enter your mother name: aee

        ****Person #68***
Enter your name: kuroo
Enter your father name: obito
Enter your mother name: yichi

        ****Person #69***
Enter your name: ney
Enter your father name: jun
Enter your mother name: chada'
```

```
        ****Person #70****              ****Person #81****
Enter your name: julie          Enter your name: jessa              ****Person #92****
Enter your father name: shaw    Enter your father name: haha    Enter your name: sage
Enter your mother name: eunji   Enter your mother name: yuna    Enter your father name: naruto
                                                                Enter your mother name: sakura
        ****Person #71****              ****Person #82****
Enter your name: tharat         Enter your name: gary               ****Person #93****
Enter your father name: ruyjin  Enter your father name: hano    Enter your name: susuke
Enter your mother name: yerin   Enter your mother name: mijoo   Enter your father name: kakash
                                                                Enter your mother name: ino
        ****Person #72****              ****Person #83****
Enter your name: bebe           Enter your name: jaeny              ****Person #94****
Enter your father name: pan     Enter your father name: han     Enter your name: choji
Enter your mother name: sushi   Enter your mother name: charong Enter your father name: gara
                                                                Enter your mother name: hinata
        ****Person #73****              ****Person #84****
Enter your name: chom           Enter your name: jin                ****Person #95****
Enter your father name: sound   Enter your father name: jin     Enter your name: long
Enter your mother name: snow    Enter your mother name: lin     Enter your father name: pay
                                                                Enter your mother name: fa
        ****Person #74****              ****Person #85****
Enter your name: sobi           Enter your name: sea
Enter your father name: jay     Enter your father name: blue        ****Person #96****
Enter your mother name: hi      Enter your mother name: navy    Enter your name: tony
                                                                Enter your father name: kim
        ****Person #75****              ****Person #86****        Enter your mother name: bella
Enter your name: lek            Enter your name: ma
Enter your father name: heng    Enter your father name: fa
Enter your mother name: pa      Enter your mother name: jae         ****Person #97****
                                                                Enter your name: windy
        ****Person #76****              ****Person #87****        Enter your father name: kang
Enter your name: sek            Enter your name: han            Enter your mother name: karin
Enter your father name: nat     Enter your father name: kin
Enter your mother name: ya      Enter your mother name: rin
                                                                    ****Person #98****
        ****Person #77****              ****Person #88****        Enter your name: winter
Enter your name: navy           Enter your name: ban            Enter your father name: summer
Enter your father name: nat     Enter your father name: bam     Enter your mother name: windy
Enter your mother name: pink    Enter your mother name: gin
                                                                    ****Person #99****
        ****Person #78****              ****Person #89****        Enter your name: boy
Enter your name: blue           Enter your name: ming           Enter your father name: jackdo
Enter your father name: brown   Enter your father name: asia    Enter your mother name: poetri
Enter your mother name: red     Enter your mother name: show
                                                                    ****Person #100****
        ****Person #79****              ****Person #90****        Enter your name: ny
Enter your name: monster        Enter your name: son            Enter your father name: nang
Enter your father name: bear    Enter your father name: sun     Enter your mother name: sala
Enter your mother name: ka      Enter your mother name: rany
                                                                    ****Person #101****
        ****Person #80****              ****Person #91****        Enter your name: sik
Enter your name: chiko          Enter your name: day            Enter your father name: sky
Enter your father name: peng    Enter your father name: kai     Enter your mother name: blue
Enter your mother name: muny    Enter your mother name: mula
```

FATHER NAME	MOTHER NAME
John	Bella
Jin	Han
sok	ta
muny	nha
nang	neth
leng	kema
kon	nell
nu	na
heng	jing
ny	pich
nith	tey
kim	thea
lom	phala
vith	ta
po	rasa
ra	tin
sun	rin
houy	mey
dy	neth
vicha	sopheak
horng	rong
one	two
pavat	nith
nang	pha
rong	vika
pich	vy
venh	jiny
eight	ai
jin	kim
heng	juny
august	na
reach	oun
earth	nine
da	bopha
suly	neang
long	jiso
like	dany
star	cloud
white	green
tena	sola
thong	joy
off	kimly
mark	yaya
go	sing
kon	jing
dun	wani
kai	junny
pon	funny
night	day
wine	jane
kin	mina
veth	tony
jackson	rin
john	jae
lee	hary
soyo	suga

Problem 5

Given a structure on the right

    a. Write a procedure that display the time in the format of h:m:s where time is the parameter of this procedure.

    b. Write a function that allow to convert time to second (time is the parameter of this function)

    c. Write a function that can convert second to time (second is the parameter of this function)

    d. Write a function that allow to calculate the difference between 2 times.

```c
#include<stdio.h>
struct time{
    int h;
    int mn;
    int s;
};

struct time time[2];

void procedure_time(int h , int mn , int s){
    if( h > 24 || h < 0 )
        printf("Please input the correct hour");
    else if( mn > 60 || mn < 0)
        printf("Please input the correct minute");
    else if( s > 60 || s < 0)
        printf("Please input the correct seconds");
    else
        printf("\n\tThe time is %d:%d:%d\n",h,mn,s);

}

int convert_seconds(int h , int mn , int s){
    int value;
    value = h*3600 + mn*60 + s;
    return value;
}

void convert_hour(int s){
    int h , mn ;
    h = s/3600;
    mn = (s%3600)/60;
    s = s - (3600*h + mn*60);
    printf("\n\tThe time is %d:%d:%d\n",abs(h),abs(mn),abs(s));
}
```

```c
int calculation( int s1 , int s2){
    int value;
    value = s1 - s2;
    return value;
}

int main(){
    printf("Please input the 1st time: ");
//    printf("Please input the time hour/minute/second: ");
    scanf("%d%d%d",&time[0].h,&time[0].mn,&time[0].s);
    printf("Please input the 2nd time: ");
//    printf("Please input the time hour/minute/second: ");
    scanf("%d%d%d",&time[1].h,&time[1].mn,&time[1].s);

    procedure_time(time[0].h,time[0].mn,time[0].s);
    /////
    int total_seconds;
    total_seconds = convert_seconds(time[0].h,time[0].mn,time[0].s);
    printf("\n\tTotal seconds after convert are %d\n",total_seconds);
    /////
    printf("\n The convert from second to time is:");
    convert_hour(total_seconds);

    /////
    printf("\nThe calculate 2 time: ");
    int def_second ;
    def_second = calculation(convert_seconds(time[1].h,time[1].mn,time[1].s),convert_seconds(time[0].h,time[0].mn,time[0].s));
    int def_hour;
    convert_hour(def_second);
}
```

```
Please input the 1st time: 1 20 23
Please input the 2nd time: 2 5 45

        The time is 1:20:23

        Total seconds after convert are 4823

 The convert from second to time is:
        The time is 1:20:23

The calculate 2 time:
        The time is 0:45:22


Process returned 0 (0x0)   execution time : 6.375 s
Press any key to continue.
```

Problem 6

Given a data structure (see the right box)

a. Write a function thar allow enter the information of students
b. Write a procedure that allows to add student to arrays
c. Write a procedure that allows to display the information of student by knowing his id
d. Write a procedure that allows to delete a student by knowing his id

```c
#include <stdio.h>
#include <string.h>
struct student{
    int id;
    char surname[20];
    char name[20];
    int age;
    char sex[20];
};
struct student s[101];
void enter_information(int i){
        printf("\n\t*** Student #%d\n",i+1);
        printf("Please input student id: ");
        scanf("%d",&s[i].id);
        printf("Please input student surname: ");
        scanf("%s",s[i].surname);
        printf("Please input student name: ");
        scanf("%s",s[i].name);
        printf("Please input student age: ");
        scanf("%d",&s[i].age);
        printf("Please input student gender: ");
        scanf("%s",s[i].sex);
        printf("\n");
}
void display(int id, int i){

    if ( id == s[i].id){
        printf("Display information of the student***\n\n");
        printf("\t ID \tSurname Name \tAge \tGender.\n");
        printf("\t%d \t%5s \t%5s \t%3d \t%5s\n",s[i].id,s[i].surname,s[i].name,s[i].age,s[i].sex);
    }
}
void delete(int id,int i){
    if ( id == s[i].id){
        printf("Display information of the student***\n");
        printf("\n\tID \tSurname Name \tAge \tGender.\n");
        printf("\n\t%d \t%5s \t%5s \t%3d \t%5s\n",s[i].id,s[i].surname,s[i].name,s[i].age,s[i].sex);
        s[i] = s[100];
        printf("Delected\n");
        printf("\n%d\t%s %s \t%d\t\t%s\n",s[i].id,s[i].surname,s[i].name,s[i].age,s[i].sex);
    }
}
```

```c
int main(){
    int id;
    printf("Please input the information of the student.\n\n");

    for ( int i = 0 ; i < 3 ; ++i )
    {
        enter_information(i);
    }
    printf("Please input the id of the student you want to find. \n");

    printf("\tID --> ");
    scanf("%d",&id);
    for( int i = 0 ; i < 3 ; ++i )
    {
        display(id,i);
    }
    printf("Please input the id of the student you want to erase.\n");
    int id2;
    printf("\tID --> ");
    scanf("%d",&id2);
    for( int i = 0 ; i < 3 ; ++i )
    {
        delete(id2,i);
    }
}
```

```
Please input the information of the student.


        *** Student #1
Please input student id: 001
Please input student surname: sok
Please input student name: dara
Please input student age: 17
Please input student gender: male


        *** Student #2
Please input student id: 002
Please input student surname: song
Please input student name: cheata
Please input student age: 25
Please input student gender: female


        *** Student #3
Please input student id: 003
Please input student surname: leng
Please input student name: heng
Please input student age: 30
Please input student gender: male

Please input the id of the student you want to find.
        ID --> 002
Display information of the student***

        ID      Surname Name    Age     Gender.
        2       song    cheata  25      female
Please input the id of the student you want to erase.
        ID --> 003
Display information of the student***

        ID      Surname Name    Age     Gender.

        3       leng    heng    30      male
Delected
```