**1.**

#include<stdio.h>

struct date {

int day;

int month;

int year;

};

struct date d[3];

int x, y;

void main() {

for (int i = 0; i < 3; i++) {

printf("enter a day:\n ");

scanf\_s("%i", &x);

while(x > 31 || x <= 0) {

printf("enter day again:\n");

scanf\_s("%i", &x);

}

if(x < 31 && x > 0){

d[i].day = x;

}

printf("enter a month:\n ");

scanf\_s("%i", &y);

while (y > 12 || y <= 0) {

printf("enter month again:\n");

scanf\_s("%i", &y);

}

if (y < 12 && y > 0) {

d[i].month = y;

}

printf("enter a year:\n");

scanf\_s("%i", &d[i].year);

}

struct date p = d[0];

int index = 0;

for (int i = 0; i < 2; i++) {

if (d[i].year < d[i + 1].year) {

p = d[i + 1];

index = i + 1;

}

if (d[i].year == d[i + 1].year) {

if (d[i].month < d[i + 1].month) {

p = d[i + 1];

index = i + 1;

}

if (d[i].month == d[i + 1].month) {

if (d[i].day < d[i + 1].day) {

p = d[i + 1];

index = i + 1;

}

}

}

}

printf("the bigest date is %i/%i/%i\nindex:%i", p.day, p.month, p.year, index);

}

**2.**

#include<stdio.h>

struct student {

int id;

int grades[5];

};

struct student student1, student2, student3;

int sum1 = 0, sum2 = 0, sum3 = 0;

double avg1, avg2, avg3, avgmax;

void main() {

printf("enter id for student1\n");

scanf\_s("%i", &student1.id);

printf("enter grades for student1:\n");

for (int i = 0; i < 5; i++) {

scanf\_s("%i", &student1.grades[i]);

}

printf("enter id for student2\n");

scanf\_s("%i", &student2.id);

printf("enter grades for student2:\n");

for (int i = 0; i < 5; i++) {

scanf\_s("%i", &student2.grades[i]);

}

printf("enter id for student3\n");

scanf\_s("%i", &student3.id);

printf("enter grades for student3:\n");

for (int i = 0; i < 5; i++) {

scanf\_s("%i", &student3.grades[i]);

}

for (int i = 0; i < 5; i++) {

sum1 = sum1 + student1.grades[i];

}

avg1 = sum1 / 5;

for (int i = 0; i < 5; i++) {

sum2 = sum2 + student2.grades[i];

}

avg2 = sum2 / 5;

for (int i = 0; i < 5; i++) {

sum3 = sum3 + student3.grades[i];

}

avg3 = sum3 / 5;

if (avg1 > avg2) {

avgmax = avg1;

}

else {

avgmax = avg2;

}

if (avg3 > avgmax) {

avgmax = avg3;

}

printf("the avrage of student1 is:%i\n", sum1 /5);

printf("the avrage of student2 is:%i\n", sum2 /5);

printf("the avrage of student3 is:%i\n", sum3 /5);

printf("the student with the biggest avrage is:\n");

if (avgmax == avg1) {

printf("%i\n", student1.id);

for (int i = 0; i < 5; i++) {

printf("%i,", student1.grades[i]);

}

}

if (avgmax == avg2) {

printf("%i\n", student2.id);

for (int i = 0; i < 5; i++) {

printf("%i,", student2.grades[i]);

}

}

if (avgmax == avg3) {

printf("%i\n", student3.id);

for (int i = 0; i < 5; i++) {

printf("%i,", student3.grades[i]);

}

}

}

**3.**

#include<stdio.h>

struct student {

int id;

int grades[5];

int phone;

};

struct student student1, student2, student3, student4;

int sum1 = 0, sum2 = 0, sum3 = 0, sum4 = 0;

double avg1, avg2, avg3, avg4, avgmax, avgmin;

void main() {

printf("enter id for student1\n");

scanf\_s("%i", &student1.id);

printf("enter a phone number for student1:\n");

scanf\_s("%i", &student1.phone);

printf("enter grades for student1:\n");

for (int i = 0; i < 5; i++) {

scanf\_s("%i", &student1.grades[i]);

}

printf("enter id for student2\n");

scanf\_s("%i", &student2.id);

printf("enter a phone number for student2:\n");

scanf\_s("%i", &student2.phone);

printf("enter grades for student2:\n");

for (int i = 0; i < 5; i++) {

scanf\_s("%i", &student2.grades[i]);

}

printf("enter id for student3\n");

scanf\_s("%i", &student3.id);

printf("enter a phone number for student3:\n");

scanf\_s("%i", &student3.phone);

printf("enter grades for student3:\n");

for (int i = 0; i < 5; i++) {

scanf\_s("%i", &student3.grades[i]);

}

printf("enter id for student4\n");

scanf\_s("%i", &student4.id);

printf("enter a phone number for student4:\n");

scanf\_s("%i", &student4.phone);

printf("enter grades for student4:\n");

for (int i = 0; i < 5; i++) {

scanf\_s("%i", &student4.grades[i]);

}

for (int i = 0; i < 5; i++) {

sum1 = sum1 + student1.grades[i];

}

avg1 = sum1 / 5;

for (int i = 0; i < 5; i++) {

sum2 = sum2 + student2.grades[i];

}

avg2 = sum2 / 5;

for (int i = 0; i < 5; i++) {

sum3 = sum3 + student3.grades[i];

}

avg3 = sum3 / 5;

for (int i = 0; i < 5; i++) {

sum4 = sum4 + student4.grades[i];

}

avg4 = sum4 / 5;

if (avg1 > avg2) {

avgmax = avg1;

}

else {

avgmax = avg2;

}

if (avg3 > avgmax) {

avgmax = avg3;

}

if (avg4 > avgmax) {

avgmax = avg4;

}

printf("the student with the biggest avrage is:\n");

if (avgmax == avg1) {

printf("%i\n", student1.id);

printf("%i\n", student1.phone);

for (int i = 0; i < 5; i++) {

printf("%i,", student1.grades[i]);

}

}

if (avgmax == avg2) {

printf("%i\n", student2.id);

printf("%i\n", student2.phone);

for (int i = 0; i < 5; i++) {

printf("%i,", student2.grades[i]);

}

}

if (avgmax == avg3) {

printf("%i\n", student3.id);

printf("%i\n", student3.phone);

for (int i = 0; i < 5; i++) {

printf("%i,", student3.grades[i]);

}

}

if (avgmax == avg4) {

printf("%i\n", student4.id);

printf("%i\n", student4.phone);

for (int i = 0; i < 5; i++) {

printf("%i,", student4.grades[i]);

}

}

if (avg1 < avg2) {

avgmin = avg1;

}

else {

avgmin = avg2;

}

if (avg3 < avgmin) {

avgmin = avg3;

}

if (avg4 < avgmin) {

avgmin = avg4;

}

printf("\nthe student with the lowest avrage is:\n");

if (avgmin == avg1) {

printf("%i\n", student1.id);

printf("%i\n", student1.phone);

for (int i = 0; i < 5; i++) {

printf("%i,", student1.grades[i]);

}

}

if (avgmin == avg2) {

printf("%i\n", student2.id);

printf("%i\n", student2.phone);

for (int i = 0; i < 5; i++) {

printf("%i,", student2.grades[i]);

}

}

if (avgmin == avg3) {

printf("%i\n", student3.id);

printf("%i\n", student3.phone);

for (int i = 0; i < 5; i++) {

printf("%i,", student3.grades[i]);

}

}

if (avgmin == avg4) {

printf("%i\n", student4.id);

printf("%i\n", student4.phone);

for (int i = 0; i < 5; i++) {

printf("%i,", student4.grades[i]);

}

}

printf("\nthe avrage of the avrages is:%i", (sum1 / 5 + sum2 / 5 + sum3 / 5 + sum4 / 5) / 4);

}