

```
① #include <stdio.h>
#include <string.h>
typedef struct student {
    char name[30];
    int rollnumber;
    int english;
    int math;
    int chemistry;
    int physics;
    int biology;
} Student;
```

```
Void main() {
    Student st;
    printf("What is the name of the student?\n");
    scanf("%s", st.name);
    printf("Rollnumber of the student:\n");
    scanf("%d", &st.rollnumber);
    printf("English marks:\n");
    scanf("%d", &st.english);
    printf("Math results:\n");
    scanf("%d", &st.math);
    printf("Chemistry results:\n");
    scanf("%d", &st.chemistry);
    printf("Biology results:\n");
    scanf("%d", &st.biology);
```

Kidus Abebe

Roll no: Kidus Abebe

```

printf("The details of Student are as follows \n");
printf("Name : %s \n", st.name);
printf("roll number : %d \n", st.rollnumber);
printf("English marks : %d \n", st.English);
printf("Math marks : %d \n", st.math);
printf("Chemistry marks : %d \n", st.chemistry);
printf("Biology marks : %d \n", st.biology);
}

```

↓ Output ↓

What is the name of the Student?

> Kidus

What is the roll number?

> 2106285

English marks?

> 98

Math marks?

> 99

Chemistry marks?

> 87

Biology marks?

> 99

The details of the student st are:

Name: Kidus

Roll number: 2106285

English marks: 98

Math marks: 99

Chemistry marks: 87

Biology marks: 99

Roll no: 2106285

Section: 03

(2)

#include <stdio.h>

#include <string.h>

typedef struct Student {

char name[30];

int rollnumber;

int English;

int math;

int Chemistry;

int physics;

int biology;

float total;

float percentage;

} student;

Void total_percentage (student S[], int n) {

{ int i;

for (i=0; i<=n-1; i++)

{

 S[i].total = S[i].English + S[i].Chemistry + S[i].math + S[i].physics
 + S[i].biology;

S[i].percentage = (S[i].total / 500) * 100;

}

}

Void roll_no (student S[], int n, int num) {

int i=0;

while (i<n) {

if (num == S[i].rollnumber) {

printf ("%d is the roll number of %s in ", num, S[i].name);

printf ("And the student's results are => ");

printf ("%d,%d,%d,%d,%d in ", S[i].biology, S[i].math, S[i].Chemistry...);

} i++; }

Kodus Abebe

OOP Lab-1

Roll no: 2106285

IT department

Section: 03

```
void specific_percentage(Student s[], int n, int minimum, int maximum) {  
    for (int i=0; i<n; i++) {
```

```
        if (s[i].percentage > minimum && s[i].percentage < maximum)
```

```
            printf("%s = percentage of % of %n", s[i].name, s[i].percentage);
```

```
}
```

```
void sorting_total(Student s[], int n) {
```

```
    for (int i=0; i<n-1; i++) {
```

```
        for (int j=0; j<n-i-1; j++) {
```

```
            if (s[j].total > s[j+1].total) {
```

```
                s[n+i] = s[j];
```

```
                s[j] = s[j+1];
```

```
                s[j+1] = s[n+i];
```

```
}
```

```
    }
```

```
}
```

```
.
```

```
void main() {
```

```
    int i, total, j, largest, n, noall;
```

```
    Student s[100];
```

```
    printf("give the number of Student %n");
```

```
    scanf("%d", &n);
```

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

```
        printf("What is the name of Student %d %n", i+1);
```

```
        scanf("%s", s[i].name);
```

```
        printf("Roll number of Student %d %n", i+1);
```

```
        scanf("%d", &s[i].rollnumber);
```

Kodus Abebe

OOP Lab-2

Roll no: 2106285

IT department

Section: 03

```
printf("English marks of Student %d\n", it);
scanf("%d", & SELJ.english);
printf("Math marks of Student %d\n", ct);
scanf("%d", & SELJ.math);
printf("Chemistry marks of Student %d\n", ct);
scanf("%d", & SELJ.chemistry);
printf("Biology marks of Student %d\n", ct);
scanf("%d", & SELJ.biology);
```

}

```
total_percentage(S, n);
```

```
printf("please enter a roll number of student \n");
scanf("%d", & roll);
roll_no(S, n, roll);
```

```
int min, max;
```

```
printf("give the range of percentage you want to see \n");
printf("min"); scanf("%d", & min); printf("max"); scanf("%d", & max);
printf("Students with the percentage in range of %d-%d are \n", min, max);
```

```
specific_percentage(S, n, min, max);
```

```
printf("The ascending order of the total marks of students is: \n");
for(i=0; i<n; i++)
{
```

```
    printf(" %s with %f total marks! \n", SELJ.name, SELJ.total);
}
```

}

}

kidus Abebe

OOP Lab 1

Roll no: 2106285

IT department

Section : 03

Output

Give the number of student

> 2

What is the name of student 1

> kidus

English marks of student 1

> 98

math marks of student 1

> 56

chemistry marks of student 1

> 89

Biology marks of student 1

> 99

What is the name of student 2

> Emanit

English marks of student 2

> 90

math marks of student 2

> 89

chemistry marks of student 2

> 67

biology marks of student 2

> 89

Please enter a roll number > 2106285

2106285 is the roll number of kidus

And the students' results are => 98, 89, 98, 56, 58

What is the range of percentage you want to see

> Min > 60 Max > 90

Kidus Abebe

OOP Lab 1

Roll no.: 2106285

IT department

Section: 03

Student with the percentage in range of 60-90 are

Kidus = percentage of 79.79995

Sunil = percentage of 85.00000

The ascending order of the total marks of Students is,

Kidus with 399.00000 total marks!

Sunil with 425.00000 total marks!.

(B)

```
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
typedef struct employee {
    char name[30];
    char gender[6];
    char designation[30];
    char department[30];
    int age;
    float basepay;
} employee;
int main() {
    employee *ptr;
    int n, i;
    float grosspay;
    printf("give the number of employees you have\n");
    scanf("%d", &n);
    ptr = (employee *) malloc(n * sizeof(employee));
    for (i = 0; i < n; i++) {
        printf("enter name, gender, designation, department, age, basepay\n");
        scanf("%s %s %s %s %d %f", &ptr[i].name, &ptr[i].gender, &ptr[i].designation, &ptr[i].department, &ptr[i].age, &ptr[i].basepay);
        grosspay = (ptr[i].basepay * 1.2) + 50;
        ptr[i].grosspay = grosspay;
    }
}
```

Kodus Abebe

OOP Lab-1.

Roll number: 2206285

IT department

Section: 03

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

```
    printf("please give the details of employee id %d\n", i+1);
```

```
    printf("name => \n");
```

```
    scanf("%s", &(ptr+i) -> name);
```

```
    printf("Gender => \n");
```

```
    scanf("%s", &(ptr+i) -> gender);
```

```
    printf("age => ");
```

```
    scanf("%d", &(ptr+i) -> age);
```

```
    printf("designation => ");
```

```
    scanf("%s", &(ptr+i) -> designation);
```

```
    printf("basic pay => ");
```

```
    scanf("%f", &(ptr+i) -> basicpay);
```

```
    printf("%s is the name of employee \n", (ptr+i) -> name);
```

```
}
```

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

```
{
```

```
    gross-pay = (ptr+i) -> basicpay + 0.8 * (ptr+i) -> basicpay + 0.1 * (ptr+i) -> basicpay;
```

```
    printf("The gross pay of employee id %d is %f \n", i+1, gross-pay);
```

```
}
```

```
return 0;
```

```
}.
```

Fidus Abebe

DOP Lab-1.

Roll number: 2106285

IT department

Section: 03

Give the number of employees

> 2.

please give details of employee 1

name \Rightarrow John

gender \Rightarrow male

age \Rightarrow 39

designation \Rightarrow doctor

basic pay \Rightarrow 300,000

please give details of employee 2

name \Rightarrow Sarah

gender \Rightarrow female

age \Rightarrow 35

designation \Rightarrow Physician

basic pay \Rightarrow 350,000

The gross pay of employee 1 is \Rightarrow 570,000.00

The gross pay of employee 2 is \Rightarrow 665,000.00