CHALLENGE INFORMATION

You have already solved this challenge ! Though you can run the code with different logic !

Course	C	Session	Structures and Unions	Question Information	Level 1 • Challenge 51

Problem

Problem Description:
Director Manirathnam wants to direct a movie on a high budget.
He has searching a historical and some other books in the book shop. One of his friend P C Sreeram collects some books and give it to him.
But not mentioned Name of the Book, Author, and Genre details. Manirathnam wants to know the details. If you help Manirathnam, he will give you one of the roles in this movie.

Constraints:
1 <=|S| <= 100

Input Format:
The input lines must be a string
The first line of the input is a Name of the Book
The second line of the input is an Author of the Book
The third line of the input is a Genre of the Book

Output Format:
Print the detailed information in separate lines.

Test Cases

Logical Test Cases

Test Case 1

INPUT (STDIN)

```
PonniyinSelvan
KalkiKrishnamurthy
Historical
```

EXPECTED OUTPUT

```
Title:PonniyinSelvan
Writer:KalkiKrishnamurthy
Genre:Historical
```

Test Case 2

INPUT (STDIN)

```
WingsofFire
AbdulKalam
Autobiography
```

EXPECTED OUTPUT

```
Title:WingsofFire
Writer:AbdulKalam
Genre:Autobiography
```

Mandatory Test Cases

Test Case 1

KEYWORD

```
union book
```

Test Case 2

KEYWORD

```
union book b1;
```

Complexity Test Cases

Test Case 1

CYCLOMATIC COMPLEXITY

```
1
```

Test Case 2

TOKEN COUNT

```
115
```

Test Case 3

NLOC

```
20
```

Code Editor

You have already solved this challenge ! Though you can run the code with different logic !

Code Editor GCC v6.3.0 Light Theme

```c
#include <stdio.h>
union book{
    char name_of_book[20];
    char author_of_book[20];
    char genre_of_book[20];;
}b2,b3;
int main()
{
    union book b1;
    scanf("%s",b1.name_of_book);
    scanf("%s",b2.author_of_book);
    scanf("%s",b3.genre_of_book);
    printf("Title:%s\n",b1.name_of_book);
    printf("Writer:%s\n",b2.author_of_book);
    printf("Genre:%s",b3.genre_of_book);
    return 0;
}
```

Save Reset Run Evaluate

Custom Input (stdin) T1 T2

Type Here

Output Match T1 Match T2

Empty

Complexity Analysis

Test Case Status

You have already solved this challenge ! Though you can run the code with different logic !

Course	C	Session	Structures and Unions	Question Information	Level 1 • Challenge 52

Problem

Problem Description:

A small country leader decided that after 25 years it could bring some reforms. So as to engage the educated and unemployed youth of that country in this matter. Ordering young people to create an application to assess citizenship eligibility for voting.

You too must work for this and help the development of a country.

Functional Description:

if the age is below 18 then “not Eligible” for voting

if the age is greater than 18 then "Eligible" for voting

Constraints:
You soul use Union Concept for this program.
1 <=age<= 100

Input Format:

The input contains the integer that indicates the age of people.

Output Format:

Display the Output “Eligible” or “Not Eligible”

Test Cases

Logical Test Cases

Test Case 1

INPUT (STDIN)

```
30
```

EXPECTED OUTPUT

```
Eligible
```

Test Case 2

INPUT (STDIN)

```
10
```

EXPECTED OUTPUT

```
Not Eligible
```

Mandatory Test Cases

Test Case 1

KEYWORD

```
union Citizen
```

Test Case 2

KEYWORD

```
union Citizen E;
```

Complexity Test Cases

Test Case 1

CYCLOMATIC COMPLEXITY

```
5
```

Test Case 2

TOKEN COUNT

```
65
```

Test Case 3

NLOC

```
20
```

Code Editor

You have already solved this challenge ! Though you can run the code with different logic !

Code Editor GCC v6.3.0 Light Theme

```c
#include <stdio.h>
union Citizen{
    int age;
};
int main()
{
    union Citizen E;
    scanf("%d",&E.age);
    if(E.age<18||E.age>100)
        printf("Not Eligible");
    else
        printf("Eligible");
    return 0;
}
```

Save | Reset | Run | Evaluate

Custom Input (stdin) T1 T2

Type Here

Output Match T1 Match T2

Empty

Complexity Analysis

Test Case Status

CHALLENGE INFORMATION

You have already solved this challenge ! Though you can run the code with different logic !

Course	C	Session	Structures and Unions	Question Information	Level 1 • Challenge 53

Problem

Problem Description:
Mr.James wants to go Godzilla vs Kong movie in iMax with his wife.
They have announced a competition for the couples. We will give you some numbers for the addition process. If anyone of the couples replies to this question, you will get a free ticket for this movie. can you help them by writing a program?

Constraints:
1 <= n<= 1000000

Input Format:
The single term must be an integer with more than two digits.

Output Format:
single-line represents the sum of the given digits

Test Cases

Logical Test Cases

Test Case 1

INPUT (STDIN)

```
567
```

EXPECTED OUTPUT

```
18
```

Test Case 2

INPUT (STDIN)

```
987
```

EXPECTED OUTPUT

```
24
```

Mandatory Test Cases

Test Case 1

KEYWORD

```
union Data
```

Test Case 2

KEYWORD

```
data.num
```

Test Case 3

KEYWORD

```
data.res
```

Complexity Test Cases

Test Case 1

CYCLOMATIC COMPLEXITY

```
3
```

Test Case 2

TOKEN COUNT

```
100
```

Test Case 3

NLOC

```
22
```

Code Editor

You have already solved this challenge ! Though you can run the code with different logic !

Code Editor GCC v6.3.0 Light Theme

```c
#include <stdio.h>
int sum(int num){
    if(num!=0){
        return(num%10+sum(num/10));
    }
    else
    return 0;
}
union Data{
    int num,res;
}data;
int main()
{
    scanf("%d",&data.num);
    data.res=sum(data.num);
    printf("%d",data.res);
    return 0;
}
```

Save | Reset | Run | Evaluate

Custom Input (stdin) T1 T2

Type Here

Output Match T1 Match T2

Empty

Complexity Analysis

Test Case Status

CHALLENGE INFORMATION

You have already solved this challenge ! Though you can run the code with different logic !

Course	C	Session	Structures and Unions	Question Information	Level 1 • Challenge 55

Problem

Question description

Aarav, Advika, binitta are good friends, They are studying final year B.E. in Computer Science and Engineering. They want to develop an application to order student details in ascending order to the high school in the village of binitta. You have to do the work for that application according to their thinking.

Constraints

1≤=Name≤=100

1≤=Department≤=100

1≤=yearOfStudy≤=100

1≤=cgpa≤=5

Input Format

First-line indicates the n number of students

The next line indicates the name, department, year of study, and CGPA details of n students

Output Format

Students details should be sorted based on their "Names" in ascending order

Test Cases

```
Aarav IT 2 8.2
Adhvika swe 3 8.6
```

EXPECTED OUTPUT

```
Name:Aarav
Department:IT
Year of study:2
CGPA:8.2
Name:Adhvika
Department:swe
Year of study:3
CGPA:8.6
Name:Binitta
Department:cse
Year of study:1
CGPA:7.8
```

EXPECTED OUTPUT

```
Name:stella
Department:cse
Year of study:1
CGPA:7.8
```

Mandatory Test Cases

Test Case 1

KEYWORD

```
struct Student
```

Complexity Test Cases

Test Case 1

CYCLOMATIC COMPLEXITY

```
7
```

Test Case 2

TOKEN COUNT

```
260
```

Test Case 3

NLOC

```
40
```

Code Editor

You have already solved this challenge ! Though you can run the code with different logic !

Code Editor GCC v6.3.0 Light Theme

```c
#include <stdio.h>
#include<string.h>
struct Student{
    char name[50];
    char dept[5];
    int year;
    float gpa;
}s[100],t;
int main()
{
    int i=0,j=0,n;
    scanf("%d",&n);
    for(i=0;i<n;i++){
        scanf("%s %s %d %f",s[i].name,s[i].dept,&s[i].year,&s[i].gpa);
    }
    for(i=0;i<n;i++){
        for(j=i+1;j<n;j++){
            if(strcmp(s[i].name,s[j].name)>0){
                t=s[i];
                s[i]=s[j];
                s[j]=t;

            }
        }
    }
    for(i=0;i<n;i++){
        printf("Name:%s\n",s[i].name);
        printf("Department:%s\n",s[i].dept);
        printf("Year of study:%d\n",s[i].year);
        printf("CGPA:%.1f\n",s[i].gpa);
    }
    return 0;
}
```

Save | Reset | Run | Evaluate

Custom Input (stdin) T1 T2

Type Here

Output Match T1 Match T2

Empty

Complexity Analysis

Test Case Status

CHALLENGE INFORMATION

You have already solved this challenge ! Though you can run the code with different logic !

Course	C	Session	Structures and Unions	Question Information	Level 1 • Challenge 56

Problem

Problem Description:

Isaac has a water leak in his bathroom. So, he had invited two workers for the waterproofing of his bathroom. But due to the shortage of workers, this work took longer than required.
Because Isaac is a middle-class man, he worries a little about the money he has to pay them.
So, help him by developing a programming logic to find the total amount each worker has to pay individually.

Constraints:
a[1]<= name <=a[100]
1<= wsal <=100
1<= wdays <= 100

Input Formats:
Get the input of each test case that contains a string value such as name, wsal, wdays.

Output Formats:
Display the output of Worker's Name, total Payment of Workers in a separate line.

INPUT (STDIN)

```
Nathan
500
6
Simon
600
7
```

EXPECTED OUTPUT

```
Nathan
3000
Simon
4200
```

INPUT (STDIN)

```
sam
800
5
Singam
600
6
```

EXPECTED OUTPUT

```
sam
4000
Singam
3600
```

Test Cases

Mandatory Test Cases

Test Case 1

KEYWORD

```
struct worker
```

Test Case 2

KEYWORD

```
struct worker a,b;
```

Complexity Test Cases

Test Case 1

CYCLOMATIC COMPLEXITY

```
2
```

Test Case 2

TOKEN COUNT

```
145
```

Test Case 3

NLOC

```
29
```

Code Editor

You have already solved this challenge ! Though you can run the code with different logic !

Code Editor GCC v6.3.0 Light Theme

```c
#include <stdio.h>
struct worker{
    char name[50];
    int wsal;
    int wdays;
    int total;
};
int main()
{
    struct worker a,b;
        scanf("%s %d %d",a.name,&a.wsal,&a.wdays);
        scanf("%s %d %d",b.name,&b.wsal,&b.wdays);
        printf("%s\n",a.name);
        a.total=(a.wsal)*(a.wdays);
        printf("%d\n",a.total);
        printf("%s\n",b.name);
        b.total=(b.wsal)*(b.wdays);
        printf("%d",b.total);
    return 0;
}
```

Save | Reset | Run | Evaluate

Custom Input (stdin) T1 T2

Type Here

Output Match T1 Match T2

Empty

Complexity Analysis

Test Case Status

CHALLENGE INFORMATION

You have already solved this challenge ! Though you can run the code with different logic !

Course	C	Session	Structures and Unions	Question Information	Level 1 • Challenge 57

Problem

Problem Description:

Joslyn is a traveller and vlogger all her fans craves for the videos of the new restaurants and its dishes. Her manager has asked to tell the exact no of videos she is going to post at the last of weekend. If she posts 3 videos of a dish and there are n dishes at a restaurant.
Can you help her calculate the total videos knowing she will go to one restaurant each day?

Constrains:
a[1]<=name<=a[100]
a[1]<=dish<=a[100]

Input format:

7 lines indicates the name of the place and no of dishes per week.

Output Format:

Print the Total number of videos by Joslyn at each restaurant

Refer Sample Testcases for Formatting

```
Shimla 21
Chennai 6
Mysore 4
Kedharnath 23
Amaranth 9
Hydrabad 7
Bangalore 8
```

EXPECTED OUTPUT

```
Shimla : 63
Chennai : 18
Mysore : 12
Kedharnath : 69
Amaranth : 27
Hydrabad : 21
Bangalore : 24
TOTAL : 234
```

```
delhi 25
Chennai 6
Mumbai 40
Kedharnath 23
Amaranth 19
Hydrabad 17
Bangalore 18
```

EXPECTED OUTPUT

```
delhi : 75
Chennai : 18
Mumbai : 120
Kedharnath : 69
Amaranth : 57
Hydrabad : 51
Bangalore : 54
TOTAL : 444
```

Test Cases

Mandatory Test Cases

Test Case 1

KEYWORD

```
struct video
```

Test Case 2

KEYWORD

```
struct video clip;
```

Complexity Test Cases

Test Case 1

CYCLOMATIC COMPLEXITY

```
4
```

Test Case 2

TOKEN COUNT

```
150
```

Test Case 3

NLOC

```
28
```

Code Editor

You have already solved this challenge ! Though you can run the code with different logic !

Code Editor GCC v6.3.0 Light Theme

```c
#include <stdio.h>
struct video{
    char place[100];
    int  videos;
};
int main()
{
    int i;
    struct video clip;
    struct video clips[7];
    clip.videos=0;
    for(i=0;i<7;i++){
        scanf("%s",clips[i].place);
        scanf("%d",&clips[i].videos);
        clip.videos+=clips[i].videos;
    }
    for(i=0;i<7;i++){
        printf("%s : ",clips[i].place);
        printf("%d\n",3*clips[i].videos);
    }
    printf("TOTAL : %d",3*clip.videos);
    return 0;
}
```

Save | Reset | Run | Evaluate

Custom Input (stdin) T1 T2

Type Here

Output Match T1 Match T2

Empty

Complexity Analysis

Test Case Status

You have already solved this challenge ! Though you can run the code with different logic !

Course	C	Session	Structures and Unions	Question Information	Level 1 • Challenge 58

Problem

Question description

In the year 2065, a scientist invents the time machine. To prove its capability, he sends it back in time to 2020, programming it to return within a particular hour. However, the machine does not return. The time machine is seen by Selvan he is a writer.

Selvan is involved in an accident and witnesses the time machine while recovering from the shock. While Selvan decides to keep the time machine for himself and written as a frame narrative. The work is generally credited with the popularisation of the concept of time travel by using a vehicle that allows an operator to travel purposely and selectively forwards or backward in time.

The Time Machine has been adapted into three feature films of the same name, as well as two television versions, and a large number of comic book adaptations. It has also indirectly inspired many more works of fiction in many media productions. Now kindly help our Captain of the Ship "Selvan" to calculate the difference between the two-time machines.

Constraints

1≤=hours≤=24

1≤=minutes≤=60

1≤=seconds≤60

Input

Get the start time in integer format HH:MM:SS

Get the end time in integer format HH:MM:SS

Output

Display the time difference in the format of HH:MM:SS

Test Cases

Logical Test Cases

Test Case 1

INPUT (STDIN)

```
12 34 55
8 12 15
```

EXPECTED OUTPUT

```
4:22:40
```

Test Case 2

INPUT (STDIN)

```
2 4 55
8 2 15
```

EXPECTED OUTPUT

```
-6:2:40
```

Mandatory Test Cases

Test Case 1

KEYWORD

```
struct Time
```

Complexity Test Cases

Test Case 1

CYCLOMATIC COMPLEXITY

```
1
```

Test Case 2

TOKEN COUNT

```
140
```

Test Case 3

NLOC

```
30
```

Code Editor

You have already solved this challenge ! Though you can run the code with different logic !

Code Editor GCC v6.3.0 Light Theme

```c
#include <stdio.h>
struct Time{
    int d1,m1,y1,d2,m2,y2,d,m,y;
}o1,o2,o3;
int main()
{
    scanf("%d %d %d %d %d %d",&o1.d1,&o1.m1,&o1.y1,&o2.d2,&o2.m2,&o2.y2);
    o3.d=(o1.d1)-(o2.d2);
    o3.m=(o1.m1)-(o2.m2);
    o3.y=(o1.y1)-(o2.y2);
    printf("%d:%d:%d",o3.d,o3.m,o3.y);
    return 0;
}
```

Save | Reset | Run | Evaluate

Custom Input (stdin) T1 T2

Type Here

Output Match T1 Match T2

Empty

Complexity Analysis

Test Case Status

You have already solved this challenge ! Though you can run the code with different logic !

Course	C	Session	Structures and Unions	Question Information	Level 1 • Challenge 59

Problem

Problem Description:

Hassan lives in a village and has to take the bus to college every day. Hassan is in his final year studying Computer Science Engineering. He had a great passion for the watch when he was a child. It was his childhood to buy a watch at festivals in his hometown.
His dad buys him a new smartwatch. In it, he develops an application to find the time differences in the two different time zones. can you help him?

Constrain:

1<= T <=100
1<= N <=100

Input Format:

The first line indicates an integer A, B denoting hours of two different zone.
The second line indicates an integer C, D denoting the minutes of the different zone.

The third line indicates an E, F denoting the seconds of the different zone.

Output Format:
First-line indicates the difference between Hours,

the second line indicates the difference between Minutes

the third line indicates the difference between the seconds

Test Cases

Logical Test Cases

Test Case 1

INPUT (STDIN)

```
20 14
15 10
10 08
```

EXPECTED OUTPUT

```
6
5
2
```

Test Case 2

INPUT (STDIN)

```
18 9
19 10
15 08
```

EXPECTED OUTPUT

```
9
9
7
```

Mandatory Test Cases

Test Case 1

KEYWORD

```
union Time
```

Complexity Test Cases

Test Case 1

CYCLOMATIC COMPLEXITY

```
1
```

Test Case 2

TOKEN COUNT

```
145
```

Test Case 3

NLOC

```
20
```

Code Editor

You have already solved this challenge ! Though you can run the code with different logic !

Code Editor GCC v6.3.0 Light Theme

```c
#include <stdio.h>
union Time{
    int h1,h2,m1,m2,s1,s2,h,m,s;
}t1,t2,t3,t4,t5,t6;
int main()
{
    scanf("%d %d",&t1.h1,&t2.h2);
    scanf("%d %d",&t3.m1,&t4.m2);
    scanf("%d %d",&t5.s1,&t6.s2);
    printf("%d\n%d\n%d",(t1.h1-t2.h2),(t3.m1-t4.m2),(t5.s1-t6.s2));
    return 0;
}
```

Save | Reset | Run | Evaluate

Custom Input (stdin) T1 T2

Type Here

Output Match T1 Match T2

Empty

Complexity Analysis

Test Case Status

CHALLENGE INFORMATION

Course	C	Session	Structures and Unions	Question Information	Level 1 • Challenge 60

Problem

Problem Description:
Mr. Mannu was working in Renault Nissan.
He was filling in the employee age and height details in the ERP.
The manager told, "height must be wanted centimeters. Also, we need age details in the separate lines".

Constraints:
1 <= age <= 100
1 <= height <=250

Input Format:
The first line of the input is an employee age
The second line of the input is employee height in a float value

Output Format:
Print the output in separate lines the age and height (2 dotted decimal value) of the employee.

Test Cases

Logical Test Cases

Test Case 1

INPUT (STDIN)

```
32
143.2
```

EXPECTED OUTPUT

```
Age=32 years
Height=143.20 cm
```

Test Case 2

INPUT (STDIN)

```
40
133.2
```

EXPECTED OUTPUT

```
Age=40 years
Height=133.20 cm
```

Mandatory Test Cases

Test Case 1

KEYWORD

```
union number
```

Test Case 2

KEYWORD

```
x.n1
```

Test Case 3

KEYWORD

```
x.n2
```

Complexity Test Cases

Test Case 1

CYCLOMATIC COMPLEXITY

```
1
```

Test Case 2

TOKEN COUNT

```
70
```

Test Case 3

NLOC

```
18
```

Code Editor

You have already solved this challenge ! Though you can run the code with different logic !

Code Editor GCC v6.3.0 Light Theme

Light Theme
Dark Theme

```c
#include <stdio.h>
union number{
    int n1;
    float n2;
};
int main()
{
    union number x;
    scanf("%d",&x.n1);
    printf("Age=%d years\n",x.n1);
    scanf("%f",&x.n2);
    printf("Height=%.2f cm",x.n2);
    return 0;
}
```

Save | Reset | Run | Evaluate

Custom Input (stdin) T1 T2

Type Here

Output Match T1 Match T2

Successfully Executed !

Complexity Analysis

Cyclomatic Complexity : 1
Token Count : 64
NLOC : 14
Execution Time : 129 ms
Size : 223 bytes

Test Case Status

Logical T1 Passed | Logical T2 Passed