

## **Day 24**

### **Lab Assignments**

1. WAP to add two complex numbers by passing structure to a function  
**Input:** Enter the first Complex:  
Real Part: 2  
Imaginary Part: 5  
Enter the second Complex:  
Real Part: 3  
Imaginary Part: 4  
**Output:** First Complex No: 2 + 5i  
Second Complex No: 3 + 4i  
Sum: 5 + 9i
2. WAP to add two times (in hr-min-sec) by passing structure to a function.  
**Input:** Enter the first time:  
Hour: 2  
Minute: 50  
Second: 30  
Enter the second time:  
Hour: 3  
Minute: 40  
Second: 40  
**Output:** First Time: 2:50:30  
Second Time: 3:40:40  
Sum: 6:31:10
3. WAP to declare an union named as ABC having three members a, b and c as character, integer and float respectively. Assign user entered values to these members respectively one by one and display these values immediately. Again assign these user entered values to a, b, c one by one, all together and display these values at last. Find the difference.  
**Input/Output:**  
Assigning user entered values to union members one by one and displaying these values immediately:  
Enter a character:A  
abc.a=A  
Enter an integer:2  
abc.b=2  
Enter a float:5.8  
abc.c=5.800000  
Assigning user entered values to union members one by one and displaying these values at last:  
Enter a character:A  
Enter an integer:2  
Enter a float:5.8  
abc.a=Û  
abc.b=1085905306  
abc.c=5.800000
4. WAP to create a new data type DATE with the help of structure and typedef. Write the following user defined functions for the date manipulations.
  - a) To display date in the format DD-MM-YYYY.

- b) To return next date
- c) To return next month.
- d) To return next year.
- e) To add few days in a date.
- f) To add few months in a date.
- g) To add few years in a date.
- h) To return month name from a date.

**Input:** Enter the date: 24-03-2023

No. of days to add : 9

No. of months to add : 2

No. of years to add : 3

**Output:** Entered Date: 24-03-2023

Next Day: 25-03-2023

Next Month: 24-04-2023

Next year is : 24-03-2024

After addition of 9 days: 2-04-2023

After addition of 2 months: 24-05-2023

After addition of 3 years: 24-03-2026

Month name : March

### **Home Assignments**

1. WAP to calculate the difference between two time periods. Times are given in hr, min and sec.

**Input:** Enter the first time:

Hour: 2

Minute: 50

Second: 30

Enter the second time:

Hour: 3

Minute: 40

Second: 40

**Output:** First Time: 2:50:30

Second Time: 4:40:40

Difference between time periods: 1:50:10

2. WAP using structure to perform addition, subtraction, and multiplication operations on two complex numbers.

**Input:** Enter the first Complex:

Real Part: 2

Imaginary Part: 5

Enter the second Complex:

Real Part: 3

Imaginary Part: 4

**Output:** First Complex No:  $2 + 5i$

Second Complex No:  $3 + 7i$

Sum:  $5 + 9i$

Difference:  $1 + 2i$

Product:  $-29 + 29i$