



Department of Computer Science & Engineering

Problem Solving with C Laboratory-UE19CS152

Week-11

Objective: Students will learn structure,array of structures , pointer to structure and also multiple files usage.

1)Write a C program to compare 2 dates and print appropriate message using structures.

Input1:

Enter Date1 in the format dd/mm/yyyy

22/04/2000

Enter Date2 in the format dd/mm/yyyy

22/04/2000

Date1=22/4/2000

Date2=22/4/2000

Output1:

Date1 is equal to Date2

Input2:

Enter Date1 in the format dd/mm/yyyy

24/02/1999

Enter Date2 in the format dd/mm/yyyy

24/01/1999

Date1=24/2/1999

Date2=24/1/1999

Output2:

Date1 is greater than Date2

Input3:

Enter Date1 in the format dd/mm/yyyy

17/4/2020

Enter Date2 in the format dd/mm/yyyy

21/12/2020

Date1=17/4/2020

Date2=21/12/2020

Output3:

Date1 is smaller than Date2

2)Write a C program to read students details as given in the table and compute division and print the result, using array of structures.

SL.No	Student details
1	Name
2	Roll Number
3	Physics
4	Maths
5	Electronics
6	Problem Solving with C
7	Mechanical
8	Total
9	Average
10	Division(FCD,FC,SC,TC)
11	Result(PASS/FAIL)

Division must be as follows

FIRST CLASS with Distinction:85-100

FIRST CLASS:60-84

SECOND CLASS:50-59

THIRD CLASS:40-49

Print Result : PASS if marks ≥ 40 FAIL if marks < 40

Input

Enter the number of students:

2

Enter Student SRN : 11

Enter Student name : xyz

Enter marks in physics : 34

Enter marks in maths : 45

Enter marks in electronics : 65

Enter marks in problem solving with c: 77

Enter marks mech : 81

Enter Student SRN : 12

Enter Student name : abc

Enter marks in physics : 55

Enter marks in maths : 76

Enter marks in electronics : 81

Enter marks in problem solving with c: 79

Enter marks mech : 88

Output:

Student Details

Student number: 11

Student name : xyz

Marks in physics : 34

Marks in maths: 45

Marks in electronics: 65

Marks in problem solving with c: 77

Marks in mech : 81

Total Marks: 302

Average Marks : 60.40

Result: FAIL

Division: F GRADE

Student Details

Student number: 12

Student name : abc

Marks in physics : 55

Marks in maths: 76

Marks in electronics: 81

Marks in problem solving with c: 79

Marks in mech : 88

Total Marks: 379

Average Marks : 75.80

Result: PASS

Division: FIRST CLASS

3) Write a program to add two distances in inch-feet using structure.

Input1:

Enter feet and inch for 1st distance

Enter feet: 7

Enter inch: 4

Enter feet and inch for 2nd distance

Enter feet: 8

Enter inch: 5

Output1:

The feet and inch is

15 feet and 9.000000 inch

Input2:

Enter feet and inch for 1st distance

Enter feet: 5

Enter inch: 12

Enter feet and inch for 2nd distance

Enter feet: 6

Enter inch: 5

Output2:

The feet and inch is

12 feet and 5.000000 inch

Practice programs:

1) Write a program to add, subtract and multiply two complex numbers using structures to function.

2) Write a program for bill generator using structures to read and display each item along with its unit price, quantity purchased and the total price. And also calculate and print the total cost of all items purchased by the customer.