Day 23

Lab Assignments

1. WAP to store one student's information (i.e. student's roll no, name, gender, marks etc) of an educational institute using structure and display all the data.

   Input:

   Enter the students data:
   Roll Number: 1505201
   Name: Rajesh Agarwal
   Gender: M
   Marks: 95

   Output:

   The students details are:
   Roll Number: 1505201
   Name: Rajesh Agarwal
   Gender: M
   Marks: 95

2. WAP to add two distances (in km-meter) using structures.

   Input:

   Enter data for first distance:
   Enter km: 6
   Enter meter: 600
   Enter data for second distance:
   Enter km: 7
   Enter meter: 500

   Output:

   Sum of the distances = 14 km 100 m

3. WAP to store *n* student's information (i.e. student's roll no, name, gender, marks in 3 subjects etc) of an educational institute using array of structure and display all the data.

   Input:

   Enter the number of students : 2

   Enter the student 1 data:
   Roll Number: 1505201
   Name: Rajesh Das
   Gender: M
   Mark in subject 1: 95
   Mark in subject 2: 85
   Mark in subject 3: 35

   Enter the student 2 data:
   Roll Number: 1505202
   Name: Yashraj
   Gender: M
   Mark in subject 1: 70
   Mark in subject 2: 80
   Mark in subject 3: 40

   Output:

Roll Number	Name	Gender	Sub 1	Sub 2	Sub 3	Total

1505201	Rajesh Das	M	95	85	35	215
1505202	Yashraj	M	70	80	40	190

4. WAP to store n employees' data such as employee name, gender, designation, department, basic pay etc. using structures with dynamically memory allocation. Calculate the gross pay of each employees as follows:
   Gross pay=basic pay + HR + DA, HR=25% of basic, DA=75% of basic

   Input:

   Enter the number of employees: 3

   Enter Employee 1 Details:
   Name: John Doe
   Gender (M/F): M
   Designation: Manager
   Department: Sales
   Basic Pay: 50000

   Enter Employee 2 Details:
   Name: Jane Smith
   Gender (M/F): F
   Designation: Engineer
   Department: Engineering
   Basic Pay: 35000

   Enter Employee 3 Details:
   Name: Alex Johnson
   Gender (M/F): M
   Designation: Analyst
   Department: Finance
   Basic pay: 45000

   Output:

Name	Gender	Designation	Department	Basic Pay	Gross Pay
John Doe	M	Manager	Sales	50000	100000
Jane Smith	F	Engineer	Engineering	35000	70000
Alex Johnson	M	Analyst	Finance	45000	90000

Home Assignments

1. WAP to store *n* books data such as title, author, publication, price etc. using structures with dynamically memory allocation. Display all the books information of a particular author.

   Input:

   Enter the number of books: 3

   Enter Book 1 Details:
   Title: Let Us C
   Author: Y Kanetkar
   Publication: BPB
   Price: 500

Enter Book 2 Details:
Title: C: The Complete Reference
Author: Herbert Schildt
Publication: Osborne
Price: 812

Enter Book 3 Details:
Title: Programming in ANSI C
Author: Balagurusamy
Publication: Tata McGraw-Hill
Price: 641

Enter the author name to find the details: Herbert Schildt

Output:

The Complete Reference by Herbert Schildt, Osborne Publication, Rs 812

2. WAP to store n student's information (roll no, name, gender, marks in 3 subjects) of an educational institute and display all the data with total marks of each student, using array of structure. Consider full mark of each subject as 100 and pass mark as 40. Display the list of students failed in each subject.

Input:

Enter the number of students : 3

Enter the student 1 data:
Roll Number: 1505201
Name: Rajesh
Gender: M
Mark in subject 1: 35
Mark in subject 2: 85
Mark in subject 3: 65

Enter the student 2 data:
Roll Number: 1505202
Name: Yashraj
Gender: M
Mark in subject 1: 70
Mark in subject 2: 81
Mark in subject 3: 40

Enter the student 2 data:
Roll Number: 1505203
Name: Ankita
Gender: F
Mark in subject 1: 73
Mark in subject 2: 85
Mark in subject 3: 30

Output:

Roll Number	Name	Gender	Sub 1	Sub 2	Sub 3	Total
1505201	Rajesh	M	35	85	65	185
1505202	Yashraj	M	70	81	40	191
1505203	Ankita	F	73	85	30	188

Students failed in Subject 1: Rajesh

Students failed in Subject 3: Ankita