Logic Building

Assignment Part 6

Problems on Structure & Union

Logic Building Assignment 6

While writing the program follow some instructions as:-

- First write algorithm for given problem statement.
- Before writing the program first decide layout of structure or union.
- While deciding the structure consider the memory required for that structure.
- Use appropriate pragma directive wherever required.
- Write a function wherever required.
- Write appropriate function name using camel case. Ex. MaxTwoNumber( )
- Write proper name for variables. Ex. int iNumber= 0; float fValue= 0.0;
- Use proper indentations.
- Use proper comments for important statements.
- Remove all warnings after compilation.
- Reuse the variables if possible.
- Write header for every function which contains
  - Function name
  - Input parameters
  - Output value
  - Description of function

  After writing the program write input and expected output.

Logic Building Assignment 6

```
////////////////////////////////////////////////////////////////////////////////
//
//  Program which contains structures as company, employee, project.
//
////////////////////////////////////////////////////////////////////////////////

typedef enum{C,CPP,JAVA,WIN32_SDK}Technology;

#pragma pack(1)
typedef struct
{
	int day : 5;
	int month : 4;
	int year : 12;
}Date;

#pragma pack(1)
typedef struct
{
	char Name_Of_Company[50];
	Date Foundation_date;
	char Name_Of_CTO[30];
	int Number_Of_Project;
	int Number_Of_Employees;
	char Address[50];
	pEmployee emp[20];
}company,*pcompany;

#pragma pack(1)
typedef struct
{
	char name[30];
	Date Joining_Date;
	char address[50];
	pProject pro;
}Employee,*pEmployee;

# pragma pack(1)
typedef struct
{
	char name[30];
	Dare Strting_date;
	Technology tech;
	int duration;
}Project,*pProject;
```

Logic Building Assignment 6

Write the following programs

1. Write a program which contains structure for maintaining information such as name of employee and its ID number. Accept that information from user and display it on screen.

2. Write a program which contains structure which is used to maintain information about date (date, month, and year).
   Accept two dates from user and display the difference between those two dates.

3. Write a program which contains student structure (name, address, standard, division, marks of five subjects, name of parents, contact number) and pass that structure to a function and print that structure.

4. Write a program which contains student structure (name, address, standard, division, marks of five subjects, name of parents, contact number) and create array of 50 elements of that student structure.
   - Pass that array to function and print all information of student having maximum marks.
   - Pass that array to function and print all information of student having minimum marks.
   - Pass that array to function and print all information of such students whose address field contains "Karve Road".

5. Write a program which contains student structure and pass that structure to a function and modify marks of that student and return the modified structure.

6. Write a program which contains structures as car (name, type , price, color), Sales_Person (name, designation, pointer to car structure), Car_Showroom(Name, address, Brand name, pointer to Sales_Person structure).
   Accept name of sales person from user and print all information of cars which are sold by that sales person.

7. Write a program which contains a structure to specify data of students given below :
   Roll number, name, department, course, year of joining.
   Write a function to print names of students who joined in particular year.

8. Write a program which creates a structure to specify data of customers in bank. The data to be stored is:
   Account number, name, and balance in account.
   Write a function withdrawal and deposited by using above structure.

9. Write a program which contains information about cricket team (country name, coach name, pointer to coach structure, number of players, array of player structure), player (name, type : batsman / bowler, no of matches played, age , number of runs scored, number of wicket taken, number of matches played), coach (name, experience, country name).

   Write a function which accept cricket team structure from user and print information of such players which plays maximum number of matches.

10. Write a program which contains structure as company (name, foundation year, name of CTO, number of employees, address, array of pointers which holds information of employees), employee (name, address, experience, designation, pointer to project structure), project (project name, team size, technology used, starting date, project duration).
    Accept name of project from user and print information if all employees working on that project.