**Program 1**

//Write a program to initialize a Structure

#include<stdio.h>

#include<conio.h>

void main()

{

struct student //Creating a structure

{

int roll;

char name[30];

int age;

}s1; //Declaring a Structure

printf("Enter the Student Details Roll No Name Age");

scanf("%d%s%d",&s1.roll,&s1.name,&s1.age); //Initiaizing the Structure

printf("The Details are Roll No-> %d,Name-> %s, Age-> %d",s1.roll,s1.name,s1.age);

getch();

}

**Program 2**

//Write a c program to read and print the Employee Detail using Structure

#include<conio.h>

#include<stdio.h>

void main()

{

struct Employee

{

int EmpID;

char Name[30];

unsigned int salary;

char post[30];

}emp1;

clrscr();

printf("Enter the Empoyee Record");

printf("Emp Id =>");

scanf("%d",&emp1.EmpID);

fflush(stdin);

printf("\nEmp Name=>");

scanf("%[^\n]s",&emp1.Name);

printf("\nSalary=>");

scanf("%u",&emp1.salary);

fflush(stdin);

printf("\nPost=>");

scanf("%[^\n]s",&emp1.post);

printf("The Id is= %d ,Name= %s ,Salary=%u ,Post=%s ",emp1.EmpID,emp1.Name,emp1.salary,emp1.post);

getch();

}

**Program 3**

//Write a Program to implement Nested Structure

#include<stdio.h>

#include<conio.h>

void main()

{

struct student

{

int id;

char Name[30];

struct Allowance

{

int basicSal;

int HRA;

int DA;

}allow;

}e1;

clrscr();

fflush(stdin);

printf("Enter the id,Nameand,basic Salary,HRA,DA");

scanf("%d %s %d %d %d",&e1.id,&e1.Name,&e1.allow.basicSal,&e1.allow.HRA,&e1.allow.DA);

printf("The id= %d ,\n Name= %s,\n basic Salary= %d ,\n HRA=%d ,\n DA=%d",e1.id,e1.Name,e1.allow.basicSal,e1.allow.HRA,e1.allow.DA);

getch();

}

**Program 4**

//Write a program to demonstrate a structure using pointer

#include<stdio.h>

#include<conio.h>

void main()

{

struct student

{

int roll;

char name[30];

char gender;

int age;

};

struct student s1;

struct student \*ptr;

ptr=&s1;

printf("\n-------------------------------");

printf("\nEnter the Student Record");

printf("\nEnter the Roll No=>");

scanf("%d",&ptr->roll);

fflush(stdin);

printf("Enter the Name of the student=>");

gets(ptr->name);

fflush(stdin);

printf("Enter the Gender=>");

scanf("%c",&ptr->gender);

printf("Enter the age=>");

scanf("%d",&ptr->age);

printf("-------------------------------");

printf("\nRoll No->%d ,\nName->%s,\nGender->%c,\nAge->%d",ptr->roll,ptr->name,ptr->gender,ptr->age);

getch();

}

**Program 5**

#include<stdio.h>

#include<conio.h>

void main()

{

int z;

union U

{

int x;

float y;

char ar[3];

};

union U u1;

printf("Enter the value of x");

scanf("%d",&u1.x);

z=sizeof(u1);

printf("Size is %d",z);

fflush(stdin);

printf("Enter the character");

gets(u1.ar);

puts(u1.ar);

getch();

}

**Program 6**

//Wap to implement a array of Structure

#include<stdio.h>

#include<conio.h>

void main()

{

struct student

{

int roll;

char Name[20];

char Fname[20];

};

int i;

struct student s[10];

clrscr();

for(i=0;i<10;i++)

{

scanf("%d",&s[i].roll);

gets(s[i].Name);

gets(s[i].Fname);

}

for(i=0;i<10;i++)

{

printf("%d",s[i].roll);

puts(s[i].Name);

puts(s[i].Fname);

}

getch();

}

**Program 7**

#include<stdio.h>

#include<conio.h>

void main()

{

struct student

{

int roll;

char Name[20];

int ar[3];

};

int i,sum=0;

struct student s1;

printf("Enter the RollNumber");

scanf("%d",&s1.roll);

fflush(stdin);

printf("Enter the Name of the Student ");

gets(s1.Name);

for(i=0;i<3;i++)

{

printf("Enter the %d Subject Mark ",i+1);

scanf("%d",&s1.ar[i]);

}

for(i=0;i<3;i++)

{

sum=sum+s1.ar[i];

}

printf("(i)-The Sum of the All Subject Mark is %d and \nthe percentage is %d %",sum,sum/3);

printf("\n(ii)-The RollNumber of the student is %d",s1.roll);

printf("\nThe Name of the Student- ");

puts(s1.Name);

getch();

}