

Assignment 13

In void main-

//1. Student (rollNo, name, marks)

```
#include<stdio.h>
```

```
struct Student{
```

```
    int rollNo;
```

```
    char name[30];
```

```
    double marks;
```

```
};
```

```
void main(){
```

```
    struct Student s1,s2;
```

```
    s1.rollNo=34;
```

```
    strcpy(s1.name,"Tanvi");
```

```
    s1.marks=87;
```

```
    printf("Roll No.:%d\n",s1.rollNo);
```

```
    printf("Name:%s\n",s1.name);
```

```
    printf("Marks:%lf",s1.marks);
```

```
printf("\nEnter Student RollNo:");
scanf("%d",&s2.rollNo);

printf("Enter Student name:");
scanf("%s",&s2.name);

printf("Enter the marks:");
scanf("%lf",&s2.marks);

printf("Roll No.:%d\n",s2.rollNo);
printf("Name:%s\n",s2.name);
printf("Marks:%lf",s2.marks);
}
```

//2. Employee (id, name, salary)

```
#include<stdio.h>
```

```
#include<string.h>
```

```
struct Employee{
```

```
    int eld;
```

```
    char name[30];
```

```
    double salary;
```

```
};
```

```
void main(){
```

```
    struct Employee emp1,emp2;
```

```
    emp1.eld=234;
```

```
    strcpy(emp1.name,"Satish");
```

```
    emp1.salary=50000;
```

```
    printf("Emp Id.:%d\n",emp1.eld);
```

```
    printf("Name:%s\n",emp1.name);
```

```
    printf("Salary:%lf",emp1.salary);
```

```
    printf("\nEnter Employee Id:");
```

```
    scanf("%d",&emp2.eld);
```

```
    printf("Enter Employee name:");
```

```
    scanf("%s",&emp2.name);
```

```
    printf("Enter the Salary:");
```

```
    scanf("%lf",&emp2.salary);
```

```
    printf("Emp Id.:%d\n",emp2.eld);
```

```
    printf("Name:%s\n",emp2.name);  
    printf("Salary:%lf",emp2.salary);  
}
```

//3. Admin (id, name, salary, allowance)

```
#include<stdio.h>
```

```
#include<string.h>
```

```
struct Admin{
```

```
    int id;
```

```
    char name[30];
```

```
    double salary;
```

```
    double allowance;
```

```
};
```

```
void main(){
```

```
    struct Admin a1,a2;
```

```
    a1.id=123;
```

```
    strcpy(a1.name,"Shruti");
```

```
a1.salary=35000;
a1.allowance=3000;

printf("Id:%d\n",a1.id);
printf("Name:%s\n",a1.name);
printf("Salary:%lf\n",a1.salary);
printf("Allowance:%lf",a1.allowance);

printf("\nEnter the admin id:");
scanf("%d",&a2.id);

printf("Enter the Name:");
scanf("%s",&a2.name);

printf("Enter the salary :");
scanf("%lf",&a2.salary);

printf("Enter the Allowance:");
scanf("%lf",&a2.allowance);

printf("Id:%d\n",a2.id);
printf("Name:%s\n",a2.name);
printf("Salary:%lf\n",a2.salary);
printf("Allowance:%lf",a2.allowance);
```

```
}
```

```
//4. HR (id, name, salary, commission)
```

```
#include<stdio.h>
```

```
#include<string.h>
```

```
struct HR{
```

```
    int id;
```

```
    char name[30];
```

```
    double salary;
```

```
    double comission;
```

```
};
```

```
void main(){
```

```
    struct HR hr1,hr2;
```

```
    hr1.id=123;
```

```
    strcpy(hr1.name,"Shruti");
```

```
    hr1.salary=35000;
```

```
    hr1.comission=3000;
```

```
    printf("Id:%d\n",hr1.id);
```

```
printf("Name:%s\n",hr1.name);  
printf("Salary:%lf\n",hr1.salary);  
printf("Comission:%lf",hr1.comission);
```

```
printf("\nEnter the HR id:");  
scanf("%d",&hr2.id);
```

```
printf("Enter the Name:");  
scanf("%s",&hr2.name);
```

```
printf("Enter the salary :");  
scanf("%lf",&hr2.salary);
```

```
printf("Enter the comission:");  
scanf("%lf",&hr2.comission);
```

```
printf("Id:%d\n",hr2.id);  
printf("Name:%s\n",hr2.name);  
printf("Salary:%lf\n",hr2.salary);  
printf("Comission:%lf",hr2.comission);
```

```
}
```

```
//5. SalesManager (id, name, salary, incentive, target)
```

```
#include<stdio.h>
```

```
#include<string.h>
```

```
struct SalesManager{
```

```
    int id;
```

```
    char name[30];
```

```
    double salary;
```

```
    float incentive;
```

```
    double target;
```

```
};
```

```
void main(){
```

```
    struct SalesManager s1,s2;
```

```
    s1.id=123;
```

```
    strcpy(s1.name,"Shruti");
```

```
    s1.salary=35000;
```

```
    s1.incentive=30.23;
```

```
    s1.target=300000;
```

```
    printf("Id:%d\n",s1.id);
```

```
    printf("Name:%s\n",s1.name);
```

```
    printf("Salary:%lf\n",s1.salary);
```



```
printf("Incentive:%f\n",s1.incentive);
```

```
printf("Target:%lf",s1.target);
```

```
printf("\nEnter the SaleManager id:");
```

```
scanf("%d",&s2.id);
```

```
printf("Enter the Name:");s
```

```
scanf("%s",&s2.name);
```

```
printf("Enter the salary :");
```

```
scanf("%lf",&s2.salary);
```

```
printf("Enter the Incentive:");
```

```
scanf("%f",&s2.incentive);
```

```
printf("Enter the Target:");
```

```
scanf("%lf",&s2.target);
```

```
printf("Id:%d\n",s2.id);
```

```
printf("Name:%s\n",s2.name);
```

```
printf("Salary:%lf\n",s2.salary);
```

```
printf("Incentive:%f\n",s2.incentive);
```

```
printf("Targer:%lf",s2.target);
```

```
}
```

```
//6. Date (date, month, year)
```

```
#include<stdio.h>
```

```
#include<string.h>
```

```
struct Date{
```

```
    int date;
```

```
    char month[10];
```

```
    int year;
```

```
};
```

```
void main(){
```

```
    struct Date d1,d2;
```

```
    d1.date=23;
```

```
    strcpy(d1.month,"March");
```

```
    d1.year=2000;
```

```
    printf("%d %s %d",d1.date,d1.month,d1.year);
```

```
    printf("\nEnter the date:");
```

```
    scanf("%d",&d2.date);
```

```
printf("Enter the month:");
```

```
scanf("%s",&d2.month);
```

```
printf("Enter the year:");
```

```
scanf("%d",&d2.year);
```

```
printf("%d %s %d",d2.date,d2.month,d2.year);
```

```
}
```

```
//7. Time (hour, min, sec)
```

```
#include<stdio.h>
```

```
#include<string.h>
```

```
struct Time{
```

```
    int hour;
```

```
    int min;
```

```
    int sec;
```

```
};
```

```
void main(){

    struct Time t1,t2;

    t1.hour=3;
    t1.min=20;
    t1.sec=20;

    printf("Time:%d hours %d minutes %d seconds",t1.hour,t1.min,t1.sec);


    printf("\nEnter the hour:");
    scanf("%d",&t2.hour);

    printf("Enter the minutes:");
    scanf("%d",&t2.min);

    printf("Enter the seconds:");
    scanf("%d",&t2.sec);

    printf("Time:%d hours %d minutes %d seconds",t2.hour,t2.min,t2.sec);


}
```

```
//8. Distance ( feet, inch)
```

```
#include<stdio.h>
```

```
#include<string.h>
```

```
struct Distance{
```

```
    int feet;
```

```
    int inch;
```

```
};
```

```
void main(){
```

```
    struct Distance d1,d2;
```

```
    d1.feet=3;
```

```
    d1.inch=23;
```

```
    printf("Feet:%d Inch:%d",d1.feet,d1.inch);
```

```
    printf("\nEnter the feet:");
```

```
    scanf("%d",&d2.feet);
```

```
    printf("Enter the inch:");
```

```
    scanf("%d",&d2.inch);
```

```
    printf("Feet:%d Inch:%d",d2.feet,d2.inch);
```

```
}
```

//9. Complex (real, imaginary)

```
#include <stdio.h>
```

```
struct Complex {
```

```
    int real;
```

```
    int imaginary;
```

```
};
```

```
void main() {
```

```
    struct Complex c1,c2;
```

```
    c1.real = 2;
```

```
    c1.imaginary = 3;
```

```
    printf("Complex Number: %d + %di\n", c1.real, c1.imaginary);
```

```
    printf("Enter the real number:");
```

```
    scanf("%d",&c2.real);
```

```
    printf("Enter the real number:");
```

```
    scanf("%d",&c2.imaginary);
```

```
    printf("Complex Number: %d + %di\n", c2.real, c2.imaginary);
```

```
}
```

```
//10. Product (id, name, quantity, price)
```

```
#include<stdio.h>
```

```
#include<string.h>
```

```
struct Product{
```

```
    int id;
```

```
    char name[20];
```

```
    int quantity;
```

```
    float price;
```

```
};
```

```
void main(){
```

```
    struct Product p1 , p2;
```

```
    p1.id=2345;
```

```
    strcpy(p1.name,"Brush");
```

```
    p1.quantity=3;
```

```
    p1.price=30;
```

```
    printf("Product Id:%d\n",p1.id);
```

```
printf("Product Name:%s\n",p1.name);  
printf("Product Quantity:%d\n",p1.quantity);  
printf("Product Price:%f\n",p1.price);
```

```
printf("Enter Product Id: ");  
scanf("%d",&p2.id);
```

```
printf("Enter Product Name: ");  
scanf("%s",&p2.name);
```

```
printf("Enter Product Quantity: ");  
scanf("%d",&p2.quantity);
```

```
printf("Enter Product price: ");  
scanf("%f",&p2.price);
```

```
printf("Product Id:%d\n",p2.id);  
printf("Product Name:%s\n",p2.name);  
printf("Product Quantity:%d\n",p2.quantity);  
printf("Product Price:%f\n",p2.price);
```

```
}
```


Using function (store , display) -> pass by value

```
//1. Student (rollNo, name, marks)
```

```
#include<stdio.h>
```

```
typedef struct Student{
```

```
    int rollno;
```

```
    char name[20];
```

```
    int marks;
```

```
}Student;
```

```
Student store();
```

```
void display(Student s1);
```

```
void main(){
```

```
    Student s1;
```

```
    s1=store(s1);
```

```
    display(s1);
```

```
}
```

```
Student store(Student s1){
```

```
    printf("Enter Roll no of the Student:");
```

```
    scanf("%d",&s1.rollno);
```

```
    printf("\nEnter Name of Student:");
```

```
    scanf("%s",s1.name);
```

```
    printf("\nEnter the marks of the Student:");
```

```
    scanf("%d",&s1.marks);
```

```
    return s1;
```

```
}
```

```
void display(Student s1){
```

```
    printf("\nRoll No:%d",s1.rollno);
```

```
    printf("\nName:%s",s1.name);
```

```
    printf("\nMarks:%d",s1.marks);
```

```
}
```

//2. Employee (id, name, salary)

```
#include<stdio.h>
```

```
typedef struct Employee{
```

```
    int id;
```

```
    char name[20];
```

```
    int salary;
```

```
}Employee;
```

```
Employee store(Employee e1);
```

```
void display(Employee e1);
```

```
void main(){
```

```
    Employee e1;
```

```
    e1=store(e1);
```

```
    display(e1);
```

```
}
```

```
Employee store(Employee e1){
```

```
    printf("Enter Id of the Employee:");
```

```

scanf("%d",&e1.id);

printf("\nEnter Name of the employee:");
scanf("%s",e1.name);

printf("\nEnter the salary of the Employee:");
scanf("%d",&e1.salary);

return e1;
}

void display(Employee e1){

printf("\nEmployee Id:%d",e1.id);
printf("\nEmployee Name:%s",e1.name);
printf("\nSalary:%d",e1.salary);
}

```

//3. Admin (id, name, salary, allowance)

```
#include<stdio.h>
```

```
typedef struct Admin{
```

```
int id;
```

```
char name[20];
```

```
        double salary;
        double allowance;
    }Admin;
```

```
Admin store(Admin a1);
void display(Admin a1);
```

```
void main(){
```

```
    Admin a1;
```

```
    a1=store(a1);
```

```
    display(a1);
```

```
}
```

```
Admin store(Admin a1){
```

```
    printf("\nEnter the admin id:");
```

```
    scanf("%d",&a1.id);
```

```
    printf("Enter the Name:");
```

```
    scanf("%s",a1.name);
```

```
    printf("Enter the salary :");
```

```
    scanf("%lf",&a1.salary);
```

```

        printf("Enter the Allowance:");
        scanf("%lf",&a1.allowance);

        return a1;
    }

void display(Admin a1){

    printf("Id:%d\n",a1.id);
    printf("Name:%s\n",a1.name);
    printf("Salary:%lf\n",a1.salary);
    printf("Allowance:%lf",a1.allowance);
}

//4. HR (id, name, salary, commission)
#include<stdio.h>

typedef struct HR{

    int id;
    char name[30];
    double salary;
    double comission;
}HR;

```

```
HR store(HR h1);  
void display(HR h1);  
void main(){
```

```
    HR h1;  
    h1=store(h1);  
    display(h1);  
}
```

```
HR store(HR h1){  
  
    printf("\nEnter the HR id:");  
    scanf("%d",&h1.id);  
  
    printf("Enter the Name:");  
    scanf("%s",h1.name);  
  
    printf("Enter the salary :");  
    scanf("%lf",&h1.salary);  
  
    printf("Enter the comission:");  
    scanf("%lf",&h1.comission);  
  
    return h1;  
}
```

```
void display(HR h1){  
  
    printf("Id:%d\n",h1.id);  
    printf("Name:%s\n",h1.name);  
    printf("Salary:%lf\n",h1.salary);  
    printf("Comission:%lf",h1.comission);  
}
```

```
//5. SalesManager (id, name, salary, incentive, target)
```

```
#include<stdio.h>
```

```
typedef struct SalesManager{
```

```
    int id;  
    char name[30];  
    double salary;  
    float incentive;  
    double target;
```

```
}SalesManager;
```

```
SalesManager store(SalesManager s1);
```

```
void display(SalesManager s1);
```



```
void main(){
```

```
    SalesManager s1;
```

```
    s1=store(s1);
```

```
    display(s1);
```

```
}
```

```
SalesManager store(SalesManager s1){
```

```
    printf("\nEnter the SaleManager id:");
```

```
    scanf("%d",&s1.id);
```

```
    printf("Enter the Name:");
```

```
    scanf("%s",s1.name);
```

```
    printf("Enter the salary :");
```

```
    scanf("%lf",&s1.salary);
```

```
    printf("Enter the Incentive:");
```

```
    scanf("%f",&s1.incentive);
```

```
    printf("Enter the Target:");
```

```

scanf("%lf",&s1.target);

return s1;

}

void display(SalesManager s1){

    printf("Id:%d\n",s1.id);
    printf("Name:%s\n",s1.name);
    printf("Salary:%lf\n",s1.salary);
    printf("Incentive:%f\n",s1.incentive);
    printf("Target:%lf",s1.target);
}

```

//6. Date (date, month, year)

```
#include<stdio.h>
```

```
typedef struct Date{
```

```
    int date;
```

```
    char month[10];
```

```
    int year;
```

```
}Date;
```

```
Date store(Date d1);
```

```
void display(Date d1);
```

```
void main(){
```

```
    Date d1;
```

```
    d1=store(d1);
```

```
    display(d1);
```

```
}
```

```
Date store(Date d1){
```

```
    printf("\nEnter the date:");
```

```
    scanf("%d",&d1.date);
```

```
    printf("Enter the month:");
```

```
    scanf("%s",&d1.month);
```

```
    printf("Enter the year:");
```

```
    scanf("%d",&d1.year);
```

```
    return d1;
```

```
}
```

```
void display(Date d1){
```

```
        printf("%d %s %d",d1.date,d1.month,d1.year);  
    }
```

//7. Time (hour, min, sec)

```
#include<stdio.h>
```

```
typedef struct Time{
```

```
    int hour;
```

```
    int min;
```

```
    int sec;
```

```
}Time;
```

```
Time store(Time t1);
```

```
void display(Time t1);
```

```
void main(){
```

```
    Time t1;
```

```
    t1=store(t1);
```

```
    display(t1);
```

```
}
```

```
Time store(Time t1){
```

```
    printf("\nEnter the hour:");
```

```
    scanf("%d",&t1.hour);
```

```
    printf("Enter the minutes:");
```

```
    scanf("%d",&t1.min);
```

```
    printf("Enter the seconds:");
```

```
    scanf("%d",&t1.sec);
```

```
    return t1;
```

```
}
```

```
void display(Time t1){
```

```
    printf("Time:%d hours %d minutes %d seconds",t1.hour,t1.min,t1.sec);
```

```
}
```

```
//8. Distance ( feet, inch)
```

```
#include<stdio.h>
```

```
typedef struct Distance{
```

```
        int feet;
        int inch;
    }Distance;
```

```
Distance store(Distance d1);
void display(Distance d1);
```

```
void main(){
```

```
    Distance d1;
    d1=store(d1);
    display(d1);
}
```

```
Distance store(Distance d1){
```

```
    printf("\nEnter the feet:");
    scanf("%d",&d1.feet);
```

```
    printf("Enter the inch:");
    scanf("%d",&d1.inch);
```

```
    return d1;
}
```

```
void display(Distance d1){  
  
    printf("Feet:%d Inch:%d",d1.feet,d1.inch);  
  
}
```

//9. Complex (real, imaginary)

```
#include<stdio.h>
```

```
typedef struct Complex{
```

```
    int imaginary;
```

```
    int real;
```

```
}Complex;
```

```
Complex store(Complex c){
```

```
    printf("Enter value of real no.:");
```

```
    scanf("%d",&c.real);
```

```

        printf("Enter value of imaginary no.:");
        scanf("%d",&c.imaginary);

        return c;
    }

void display(Complex c2){
    printf("Complex No.=%d+%di",c2.real,c2.imaginary);
}

void main(){

    Complex c1;
    c1 =store(c1);
    display(c1);
}

```

//10. Product (id, name, quantity, price)

```
#include<stdio.h>
```

```
typedef struct Product{
```

```

    int id;
    char name[20];
    int quantity;

```



```
float price;
```

```
}Product;
```

```
Product store(Product p1);
```

```
void display(Product p1);
```

```
void main(){
```

```
    Product p1;
```

```
    p1=store(p1);
```

```
    display(p1);
```

```
}
```

```
Product store(Product p1){
```

```
    printf("Enter Product Id: ");
```

```
    scanf("%d",&p1.id);
```

```
    printf("Enter Product Name: ");
```

```
    scanf("%s",p1.name);
```

```
    printf("Enter Product Quantity: ");
```

```
    scanf("%d",&p1.quantity);
```

```
printf("Enter Product price: ");
```

```
scanf("%f",&p1.price);
```

```
return p1;
```

```
}
```

```
void display(Product p1){
```

```
printf("Product Id:%d\n",p1.id);
```

```
printf("Product Name:%s\n",p1.name);
```

```
printf("Product Quantity:%d\n",p1.quantity);
```

```
printf("Product Price:%f\n",p1.price);
```

```
}
```

-> pass one structure variable to function by address

//1. Student (rollNo, name, marks)

```
#include<stdio.h>
```

```
typedef struct Student{
```

```
    int rollno;
```

```
    char name[20];
```

```
    int marks;
```

```
}Student;
```

```
Student store(Student* s1);
```

```
void display(Student* s1);
```

```
void main(){
```

```
    Student s1;
```

```
    store(&s1);
```

```
    display(&s1);
```

```
}
```

```
Student store(Student* s1){
```

```
    printf("Enter Roll no of the Student:");
```

```
    scanf("%d",&s1->rollno);
```

```
    printf("\nEnter Name of Student:");
```

```
    scanf("%s",&s1->marks);
```

```
    printf("\nEnter the marks of the Student:");
```

```
    scanf("%d",&s1->marks);
```

```
}
```

```
void display(Student* s1){
```

```
    printf("\nRoll No:%d",s1->rollno);
```

```
    printf("\nName:%s",s1->name);
```

```
    printf("\nMarks:%d",s1->marks);
```

```
}
```

//2. Employee (id, name, salary)

```
#include<stdio.h>
```

```
typedef struct Employee{
```

```
    int id;
```

```
    char name[20];
```

```
    int salary;
```

```
}Employee;
```

```
Employee store(Employee* e1);
```

```
void display(Employee* e1);
```

```
void main(){
```

```
    Employee e1;
```

```
    store(&e1);
```

```
    display(&e1);
```

```
}
```

```
Employee store(Employee* e1){
```

```
    printf("Enter Id of the Employee:");
```

```
scanf("%d",&e1->id);
```

```
printf("\nEnter Name of the employee:");
```

```
scanf("%s",e1->name);
```

```
printf("\nEnter the salary of the Employee:");
```

```
scanf("%d",&e1->salary);
```

```
}
```

```
void display(Employee* e1){
```

```
printf("\nEmployee Id:%d",e1->id);
```

```
printf("\nEmployee Name:%s",e1->name);
```

```
printf("\nSalary:%d",e1->salary);
```

```
}
```

```
//3. Admin (id, name, salary, allowance)
```

```
#include<stdio.h>
```

```
typedef struct Admin{
```

```
    int id;
    char name[20];
    double salary;
    double allowance;
}Admin;
```

```
void store(Admin* a1);
void display(Admin* a1);
```

```
void main(){
```

```
    Admin a1;
```

```
    store(&a1);
```

```
    display(&a1);
```

```
}
```

```
void store(Admin* a1){
```

```
    printf("\nEnter the admin id:");
```

```
    scanf("%d",&a1->id);
```

```
    printf("Enter the Name:");
```

```
    scanf("%s",a1->name);
```

```
printf("Enter the salary :");
```

```
scanf("%lf",&a1->salary);
```

```
printf("Enter the Allowance:");
```

```
scanf("%lf",&a1->allowance);
```

```
}
```

```
void display(Admin* a1){
```

```
printf("Id:%d\n",a1->id);
```

```
printf("Name:%s\n",a1->name);
```

```
printf("Salary:%lf\n",a1->salary);
```

```
printf("Allowance:%lf",a1->allowance);
```

```
}
```

```
//4. HR (id, name, salary, commission)
```

```
#include<stdio.h>
```

```
typedef struct HR{
```

```
int id;
```



```
        char name[30];  
        double salary;  
        double comission;  
    }HR;
```

```
void store(HR* h1);  
void display(HR* h1);
```

```
void main(){
```

```
    HR h1;  
    store(&h1);  
    display(&h1);  
}
```

```
void store(HR* h1){
```

```
    printf("\nEnter the HR id:");  
    scanf("%d",&h1->id);
```

```
    printf("Enter the Name:");  
    scanf("%s",h1->name);
```

```
    printf("Enter the salary :");  
    scanf("%lf",&h1->salary);
```

```

        printf("Enter the comission:");
        scanf("%lf",&h1->comission);

    }

void display(HR* h1){

    printf("Id:%d\n",h1->id);
    printf("Name:%s\n",h1->name);
    printf("Salary:%lf\n",h1->salary);
    printf("Comission:%lf",h1->comission);
}

```

//5. SalesManager (id, name, salary, incentive, target)

```
#include<stdio.h>
```

```
typedef struct SalesManager{
```

```

    int id;
    char name[30];

```

```
        double salary;
        float incentive;
        double target;
    }SalesManager;

SalesManager store(SalesManager* s1);
void display(SalesManager* s1);
```

```
void main(){

    SalesManager s1;

    store(&s1);
    display(&s1);

}
```

```
SalesManager store(SalesManager* s1){

    printf("\nEnter the SaleManager id:");
    scanf("%d",&s1->id);

    printf("Enter the Name:");
    scanf("%s",&s1->id);
```

```
printf("Enter the salary :");  
scanf("%lf",&s1->salary);
```

```
printf("Enter the Incentive:");  
scanf("%f",&s1->incentive);
```

```
printf("Enter the Target:");  
scanf("%lf",&s1->target);
```

```
}
```

```
void display(SalesManager* s1){
```

```
    printf("Id:%d\n",s1->id);  
    printf("Name:%s\n",s1->name);  
    printf("Salary:%lf\n",s1->salary);  
    printf("Incentive:%f\n",s1->incentive);  
    printf("Target:%lf",s1->target);
```

```
}
```

```
//6. Date (date, month, year)
```

```
#include<stdio.h>
```

```
typedef struct Date{
```

```
    int date;
```

```
    char month[10];
```

```
    int year;
```

```
}Date;
```

```
void store(Date* d1);
```

```
void display(Date* d1);
```

```
void main(){
```

```
    Date d1;
```

```
    store(&d1);
```

```
    display(&d1);
```

```
}
```

```
void store(Date* d1){
```

```
    printf("\nEnter the date:");
```

```
scanf("%d",&d1->date);
```

```
printf("Enter the month:");
```

```
scanf("%s",d1->month);
```

```
printf("Enter the year:");
```

```
scanf("%d",&d1->year);
```

```
}
```

```
void display(Date* d1){
```

```
    printf("%d %s %d",d1->date,d1->month,d1->year);
```

```
}
```

```
//7. Time (hour, min, sec)
```

```
#include<stdio.h>
```

```
typedef struct Time{
```

```
    int hour;
```

```
        int min;  
        int sec;  
    }Time;
```

```
void store(Time* t1);  
void display(Time* t1);
```

```
void main(){
```

```
    Time t1;
```

```
    store(&t1);
```

```
    display(&t1);
```

```
}
```

```
void store(Time* t1){
```

```
    printf("\nEnter the hour:");
```

```
    scanf("%d",&t1->hour);
```

```
    printf("Enter the minutes:");
```

```
    scanf("%d",&t1->min);
```

```
    printf("Enter the seconds:");
```

```
    scanf("%d",&t1->sec);
```

```
}
```

```
void display(Time* t1){
```

```
    printf("Time:%d hours %d minutes %d seconds",t1->hour,t1->hour,t1->sec);
```

```
}
```

```
//8. Distance ( feet, inch)
```

```
#include<stdio.h>
```

```
typedef struct Distance{
```

```
    int feet;
```

```
    int inch;
```

```
}Distance;
```

```
void store(Distance* d1);
```

```
void display(Distance* d1);
```

```
void main(){
```



```
    Distance d1;  
    store(&d1);  
    display(&d1);  
}
```

```
void store(Distance* d1){  
  
    printf("\nEnter the feet:");  
    scanf("%d",&d1->feet);  
  
    printf("Enter the inch:");  
    scanf("%d",&d1->inch);  
  
}
```

```
void display(Distance* d1){  
  
    printf("Feet:%d Inch:%d",d1->feet,d1->inch);  
  
}
```

//9. Complex (real, imaginary)

```
#include<stdio.h>
```

```
typedef struct Complex{
```

```
    int imaginary;
```

```
    int real;
```

```
}Complex;
```

```
Complex store(Complex* c){
```

```
    printf("Enter value of real no.:");
```

```
    scanf("%d",&c->real);
```

```
    printf("Enter value of imaginary no.:");
```

```
    scanf("%d",&c->imaginary);
```

```
}
```

```
void display(Complex* c2){
```

```
    printf("Complex No.= %d+%di",c2->real,c2->imaginary);
```

```
}
```

```
void main(){
```

```
    Complex c1;
```

```
    store(&c1);
```

```
    display(&c1);
```

```
}
```

```
//10. Product (id, name, quantity, price)
```

```
#include<stdio.h>
```

```
typedef struct Product{
```

```
    int id;
```

```
    char name[20];
```

```
    int quantity;
```

```
    float price;
```

```
}Product;
```

```
void store(Product* p1);
```

```
void display(Product* p1);
```

```
void main(){
```

```
    Product p1;
```

```
    store(&p1);
```

```
    display(&p1);
```

```
}
```

```
void store(Product* p1){
```

```
    printf("Enter Product Id: ");
```

```
    scanf("%d",&p1->id);
```

```
    printf("Enter Product Name: ");
```

```
    scanf("%s",p1->name);
```

```
    printf("Enter Product Quantity: ");
```

```
    scanf("%d",&p1->quantity);
```

```
    printf("Enter Product price: ");
```

```
    scanf("%f",&p1->price);
```

```
}
```

```
void display(Product* p1){
```

```
    printf("Product Id:%d\n",p1->id);
```

```
    printf("Product Name:%s\n",p1->name);
```

```
    printf("Product Quantity:%d\n",p1->quantity);
```

```
    printf("Product Price:%f\n",p1->price);
```

```
}
```

-> pass by address (array)

```
//1. Student (rollNo, name, marks)
```

```
#include<stdio.h>
```

```
typedef struct Student{
```

```
    int rollno;
```

```
    char name[20];
```

```
    int marks;
```

```
}Student;
```

```
void store(Student sarr[],int size);
```

```
void display(Student sarr[],int size);
```

```
void main(){
```

```
    int size=4;
```

```
    Student sarr[size];
```

```
    store(sarr,size);
```

```
    display(sarr,size);
```

```
}
```

```
void store(Student sarr[],int size){
```

```
    int i;
```

```
    for(i=0;i<size;i++){
```

```
        printf("Enter Roll no of the Student:");
```

```
        scanf("%d",&sarr[i].rollno);
```

```
        printf("\nEnter Name of Student:");
```

```
scanf("%s",sarr[i].name);
```

```
printf("\nEnter the marks of the Student:");
```

```
scanf("%d",&sarr[i].marks);
```

```
}
```

```
}
```

```
void display(Student sarr[],int size){
```

```
int i;
```

```
for(i=0;i<size;i++){
```

```
printf("\nRoll No:%d",sarr[i].rollno);
```

```
printf("\nName:%s",sarr[i].name);
```

```
printf("\nMarks:%d",sarr[i].marks);
```

```
}
```

```
}
```

```
//2. Employee (id, name, salary)
```

```
#include<stdio.h>
```

```
typedef struct Employee{
```

```
    int id;
```

```
    char name[20];
```

```
    int salary;
```

```
}Employee;
```

```
void store(Employee arr[],int size);
```

```
void display(Employee arr[],int size);
```

```
void main(){
```

```
    int size=3;
```

```
    Employee arr[size];
```

```
    store(arr,size);
```

```
    display(arr,size);
```

```
}
```

```
void store(Employee arr[],int size){
```

```
    int i;
```



```
for (i=0;i<size;i++){  
    printf("Enter Id of the Employee:");  
    scanf("%d",&arr[i].id);  
  
    printf("\nEnter Name of the employee:");  
    scanf("%s",arr[i].name);  
  
    printf("\nEnter the salary of the Employee:");  
    scanf("%d",&arr[i].salary);  
  
}  
}
```

```
void display(Employee arr[],int size){  
  
    int i;  
  
    for(i=0;i<size;i++){  
  
        printf("\nEmployee Id:%d",arr[i].id);  
        printf("\nEmployee Name:%s",arr[i].name);  
        printf("\nSalary:%d",arr[i].salary);  
  
    }  
}
```

//3. Admin (id, name, salary, allowance)

```
#include<stdio.h>
```

```
typedef struct Admin{
```

```
    int id;
```

```
    char name[20];
```

```
    double salary;
```

```
    double allowance;
```

```
}Admin;
```

```
void store(Admin* arr,int size);
```

```
void display(Admin* arr,int size);
```

```
void main(){
```

```
    Admin arr[3];
```

```
    store (arr,3);
```

```
    display(arr,3);
```

```
}
```

```
void store(Admin* arr,int size){
```

```
int i;
```

```
for(i=0;i<size;i++){
```

```
printf("\nEnter the admin id:");
```

```
scanf("%d",&arr[i].id);
```

```
printf("Enter the Name:");
```

```
scanf("%s",arr[i].name);
```

```
printf("Enter the salary :");
```

```
scanf("%lf",&arr[i].salary);
```

```
printf("Enter the Allowance:");
```

```
scanf("%lf",&arr[i].allowance);
```

```
}
```

```
}
```

```
void display(Admin* arr,int size){
```

```
int i;
```

```
for(i=0;i<size;i++){
```

```
        printf("Id:%d\n",arr[i].id);
        printf("Name:%s\n",arr[i].name);
        printf("Salary:%lf\n",arr[i].salary);
        printf("Allowance:%lf",arr[i].allowance);
    }
}
```

//4. HR (id, name, salary, commission)

```
typedef struct HR{

    int id;
    char name[30];
    double salary;
    double comission;
}HR;
```

```
void store(HR* hrr,int size);
void display(HR* hrr,int size);
```

```
void main(){
```

```
    HR hrr[3];
```

```

        store(hrr,3);

        display(hrr,3);
    }

void store(HR* hrr,int size){

    int i;
    for(i=0;i<size;i++){

        printf("\nEnter the HR id:");
        scanf("%d",&hrr[i].id);

        printf("Enter the Name:");
        scanf("%s",hrr[i].name);

        printf("Enter the salary :");
        scanf("%lf",&hrr[i].salary);

        printf("Enter the comission:");
        scanf("%lf",&hrr[i].comission);
    }
}

```

```
void display(HR* hrr,int size){

    int i;
    for(i=0;i<size;i++){

        printf("Id:%d\n",hrr[i].id);
        printf("Name:%s\n",hrr[i].name);
        printf("Salary:%lf\n",hrr[i].salary);
        printf("Comission:%lf",hrr[i].comission);

    }

}
```

//5. SalesManager (id, name, salary, incentive, target)

```
#include<stdio.h>
```

```
typedef struct SalesManager{
```

```
    int id;
```

```
        char name[30];
        double salary;
        float incentive;
        double target;
    }SalesManager;

void store(SalesManager* arr,int size);
void display(SalesManager* arr,int size);

void main(){

    SalesManager arr[3];

    store(arr,3);

    display(arr,3);
}
```

```
void store(SalesManager* arr,int size){

    int i;
    for(i=0;i<size;i++){

        printf("\nEnter the SaleManager id:");
        scanf("%d",&arr[i].id);
```

```
printf("Enter the Name:");
scanf("%s",arr[i].name);

printf("Enter the salary :");
scanf("%lf",&arr[i].salary);

printf("Enter the Incentive:");
scanf("%f",&arr[i].incentive);

printf("Enter the Target:");
scanf("%lf",&arr[i].target);
}
}

void display(SalesManager* arr,int size){
    int i;
    for(i=0;i<size;i++){

        printf("Id:%d\n",arr[i].id);
        printf("Name:%s\n",arr[i].name);
        printf("Salary:%lf\n",arr[i].salary);
        printf("Incentive:%f\n",arr[i].incentive);
        printf("Target:%lf",arr[i].target);
    }
}
```



```
//6. Date (date, month, year)
```

```
#include<stdio.h>
```

```
typedef struct Date{
```

```
    int date;
```

```
    char month[10];
```

```
    int year;
```

```
}Date;
```

```
void store(Date* drr,int size);
```

```
void display(Date* drr,int size);
```

```
void main(){
```

```
    Date drr[5];
```

```
    store(drr,5);
```

```
    display(drr,5);
```

```
}
```

```
void store(Date* drr,int size){
```

```
        int i;
        for(i=0;i<size;i++){
            printf("\nEnter the date:");
            scanf("%d",&drr[i].date);

            printf("Enter the month:");
            scanf("%s",drr[i].month);

            printf("Enter the year:");
            scanf("%d",&drr[i].year);
        }
    }
```

```
void display(Date* drr,int size){
```

```
    int i;
    for(i=0;i<size;i++){

        printf("%d %s %d\n",drr[i].date,drr[i].month,drr[i].year);
    }
}
```

```
//7. Time (hour, min, sec)
```

```
#include<stdio.h>
```

```
typedef struct Time{
```

```
    int hour;
```

```
    int min;
```

```
    int sec;
```

```
}Time;
```

```
void store(Time* trr,int size);
```

```
void display(Time* trr,int size);
```

```
void main(){
```

```
    Time trr[3];
```

```
    store(trr,3);
```

```
    display(trr,3);
```

```
}
```

```
void store(Time* trr,int size){
```

```
    int i;
```

```

        for(i=0;i<size;i++){

                printf("\nEnter the hour:");

scanf("%d",&trr[i].hour);


printf("Enter the minutes:");

scanf("%d",&trr[i].min);


printf("Enter the seconds:");

scanf("%d",&trr[i].sec);

        }
}

void display(Time* trr,int size){

int i;

for(i=0;i<size;i++){

                printf("Time:%d hours %d minutes %d
seconds\ns",trr[i].hour,trr[i].min,trr[i].sec);

        }

}

```

//8. Distance (feet, inch)

```
#include<stdio.h>
```

```
typedef struct Distance{
```

```
        int feet;
        int inch;
    }Distance;

void display(Distance* drr,int size);
void store(Distance* drr,int size);

void main(){

    Distance drr[3];

    store(drr,3);

    display(drr,3);

}

void store(Distance* drr,int size){

    int i;
    for(i=0;i<size;i++){

        printf("\nEnter the feet:");
        scanf("%d",&drr[i].feet);
```

```

        printf("Enter the inch:");
        scanf("%d",&drr[i].inch);

    }

}

void display(Distance* drr,int size){

    int i;
    for(i=0;i<size;i++){

        printf("Feet:%d Inch:%d",drr[i].feet,drr[i].inch);

    }

}

```

//9. Complex (real, imaginary)

```
#include<stdio.h>
```

```
typedef struct Complex{
```

```
    int imaginary;
```

```
        int real;  
    }Complex;
```

```
void main(){
```

```
    Complex crr[3];
```

```
    store(crr,3);
```

```
    display(crr,3);
```

```
}
```

```
void store (Complex* crr,int size){
```

```
    int i;
```

```
    for(i=0;i<size;i++){
```

```
        printf("Enter value of real no.:");
```

```
        scanf("%d",&crr[i].real);
```

```
        printf("Enter value of imaginary no.:");
```

```
        scanf("%d",&crr[i].imaginary);
```

```
    }
```

```
}
```

```
void display(Complex* crr,int size){
```

```
    int i;
```

```
    for(i=0;i<size;i++){
```

```
        printf("Complex No.=%d+%di\n",crr[i].real,crr[i].imaginary);
```

```
    }
```

```
}
```

```
//10. Product (id, name, quantity, price)
```

```
#include <stdio.h>
```

```
typedef struct Product {
```

```
    int id;
```

```
    char name[20];
```

```
    int quantity;
```

```
    float price;
```

```
} Product;
```

```
void storeArray(Product arr[], int size);
```

```
void display(Product arr[], int size);
```



```
void main() {  
  
    int size = 3;  
    Product arr[size];  
  
    storeArray(arr, size);  
  
    display(arr, size);  
  
}
```

```
void storeArray(Product arr[], int size) {  
  
    int i;  
    for ( i = 0; i < size; i++) {  
  
        printf("Enter Product Id: ");  
        scanf("%d", &arr[i].id);  
  
        printf("Enter Product Name: ");  
        scanf("%s", arr[i].name);  
    }  
}
```

```
    printf("Enter Product Quantity: ");
    scanf("%d", &arr[i].quantity);

    printf("Enter Product Price: ");
    scanf("%f", &arr[i].price);
}
}

void display(Product arr[], int size) {
    int i;

    for (i = 0; i < size; i++) {
        printf("\nProduct %d:\n", i + 1);
        printf("Id: %d\n", arr[i].id);
        printf("Name: %s\n", arr[i].name);
        printf("Price: %.2f\n", arr[i].price);
        printf("Quantity: %d\n", arr[i].quantity);
    }
}
```

