

Assignment No.13

By Pass by Value

Q1. Student (rollNo, name, marks)

:-Code :-

```
//Student (rollNo, name, marks)
#include<stdio.h>
typedef struct Student{
    int rollNo;
    char name[20];
    int marks;
} Student;
Student store();
void display(Student);
void main(){
    Student s1,s2;
    s1=store();
    s2=store();
    printf("\n ...User define in Info... \n");
    printf("\n ----- \n");
    display(s1);
    printf("\n ----- \n");
    display(s2);
}
Student store(){
    Student s1;
    printf("Enter Student Roll No :");
    scanf("%d",&s1.rollNo);
    printf("Enter Student Name :");
    scanf("%s",s1.name);
    printf("Enter Student Marks :");
    scanf("%d",&s1.marks);
    return s1;
}
void display(Student s1){
    printf(" Student Roll No : %d \n",s1.rollNo);
    printf(" Student Name   : %s \n",s1.name);
    printf(" Student Marks   : %d \n",s1.marks);
}
```

Q2. Employee (id, name, salary)

-:Code :-

```
//Employee (id, name, salary)
#include<stdio.h>
typedef struct Employ{
    int Id;
    char name[20];
    float Salary;
}Employ;
Employ store();
void display(Employ);
void main(){
    Employ e1,e2;
    e1=store();
    e2=store();
    printf("\n ...User define in Info... \n");
    printf("\n ----- \n");
    display(e1);
    printf("\n ----- \n");
    printf("\n ----- \n");
    display(e2);
}
Employ store(){
    Employ e1;
    printf("Enter Employee Id :");
    scanf("%d",&e1.Id);
    printf("Enter Name :");
    scanf("%s",e1.name);
    printf("Enter Salary :");
    scanf("%f",&e1.Salary);
    return e1;
}
void display(Employ e1){
    printf(" Employee Id    : %d \n",e1.Id);
    printf(" Employee Name   : %s \n",e1.name);
    printf(" Employee       : %.2f \n",e1.Salary);
}
```

Q3. Admin (id, name, salary, allowance)

:-Code :-

```
//Admin (id, name, salary, allowance)
#include<stdio.h>
typedef struct Admin{
    int Id;
    char name[20];
    float Salary;
    float allo;
}Admin;
Admin store();
void display(Admin);

void main(){
    Admin a1,a2;
    a1=store();
    a2=store();
    printf("\n ...User define in Info... \n");
    printf("\n ----- \n");
    display(a1);

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

    printf("\n ----- \n");
    display(a2);

}

Admin store(){
    Admin a1;
    printf("Enter Id :");
    scanf("%d",&a1.Id);
    printf("Enter Name :");
    scanf("%s",a1.name);
    printf("Enter Salary :");
    scanf("%f",&a1.Salary);
    printf("Enter Allowance :");
    scanf("%f",&a1.allo);
    return a1;
```

```
}  
void display(Admin a1){  
    printf(" Admin Id      : %d \n",a1.Id);  
    printf(" Admin Name    : %s \n",a1.name);  
    printf(" Admin Salary   : %.2f \n",a1.Salary);  
    printf(" Admin Allowance : %.2f \n",a1.allo);  
}
```

Q4. HR (id, name, salary, commission)

Code :-

```
//HR (id, name, salary, commission)
#include<stdio.h>
typedef struct hr{
    int Id;
    char name[20];
    float Salary;
    float Com;
}hr;
hr store();
void display(hr);
void main(){
    hr h1,h2;
    h1=store();
    h2=store();
    printf("\n ...User define in Info... \n");
    printf("\n ----- \n");
    display(h1);

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

    printf("\n ----- \n");
    display(h2);

}

hr store(){
    hr h1;
    printf("Enter Id :");
    scanf("%d",&h1.Id);
    printf("Enter Name :");
    scanf("%s",h1.name);
    printf("Enter Salary :");
    scanf("%f",&h1.Salary);
    printf("Enter Commission :");
    scanf("%f",&h1.Com);
    return h1;
}
```

```
void display(hr h1){  
    printf(" Id      : %d \n",h1.Id);  
    printf(" Name     : %s \n",h1.name);  
    printf(" Salary    : %.2f \n",h1.Salary);  
    printf(" Commission : %.2f \n",h1.Com);  
}
```

Q5. SalesManager (id, name, salary, incentive, target)

-:Code :-

```
//SalesManager (id, name, salary, incentive, target)
#include<stdio.h>
typedef struct SalesManager{
    int Id;
    char name[20];
    float Salary;
    float incentive;
    int target;
}SalesManager;
SalesManager store();
void display(SalesManager);
void main(){
    SalesManager s1,s2;
    s1=store();
    s2=store();
    printf("\n ...User define in Info... \n");
    printf("\n ----- \n");
    display(s1);
    printf("\n ----- \n");

    printf("\n ----- \n");
    display(s2);

}

SalesManager store(){
    SalesManager s1;
    printf("Enter Id :");
    scanf("%d",&s1.Id);
    printf("Enter Name :");
    scanf("%s",s1.name);
    printf("Enter Salary :");
    scanf("%f",&s1.Salary);
    printf("Enter Incentive :");
    scanf("%f",&s1.incentive);
    printf("Enter Target :");
```

```
scanf("%d",&s1.target);
return s1;
}
void display(SalesManager s2){
    printf(" Id      : %d \n",s2.Id);
    printf(" Name     : %s \n",s2.name);
    printf(" Salary    : %.2f \n",s2.Salary);
    printf(" incentive : %.2f \n",s2.incentive);
    printf(" Id       : %d Sales\n",s2.target);
}
```


Q6.Date (date, month, year)

-:Code :-

```
//Date (date, month, year)
#include<stdio.h>
typedef struct Date{
    int day;
    int month;
    int year;
}Date;
Date store();
void display(Date);
void main(){
    Date d1,d2;
    d1=store();
    d2=store();
    printf("\n ...User define in Info... \n");
    printf("\n ----- \n");
    display(d1);
    printf("\n ----- \n");
    printf("\n ----- \n");
    display(d2);
}
Date store(){
    Date d;
    printf("Enter day :");
    scanf("%d",&d.day);
    printf("Enter Month :");
    scanf("%d",&d.month);
    printf("Enter Year :");
    scanf("%d",&d.year);
    return d;
}
void display(Date d){
    printf("  %d/%d/%d \n",d.day,d.month,d.year);
}
```

Q7. Time (hour, min, sec)

-:Code :-

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

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

```
typedef struct Time{
```

```
    int hr;
```

```
    int min;
```

```
    int sec;
```

```
}Time;
```

```
Time store();
```

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

```
void main(){
```

```
    Time t1,t2;
```

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

```
    t2=store();
```

```
        printf("\n ...User define in Info... \n");
```

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

```
    display(t1);
```

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

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

```
    display(t2);
```

```
}
```

```
Time store(){
```

```
    Time t;
```

```
    printf("Enter Hour :");
```

```
    scanf("%d",&t.hr);
```

```
    printf("Enter Minute :");
```

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

```
    printf("Enter Second :");
```

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

```
        return t;
    }
    void display(Time t){
        printf("    %d : %d : %d \n",t.hr,t.min,t.sec);
    }
}
```

Q8. Distance (feet, inch)

Code :-

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

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

```
typedef struct Distance{  
    int Km;  
    int meter;  
}Dis;  
Dis store();  
void display(Dis);
```

```
void main(){  
    Dis d1,d2;  
    d1=store();  
    d2=store();  
    printf("\n ...User define in Info... \n");  
    printf("\n ----- \n");  
    display(d1);  
    printf("\n ----- \n");  
  
    printf("\n ----- \n");  
    display(d2);  
  
}
```

```
Dis store(){  
    Dis d;  
    printf("Enter KM :");  
    scanf("%d",&d.Km);  
    printf("Enter Meter :");  
    scanf("%d",&d.meter);  
    return d;  
}  
  
void display(Dis d){  
    printf("  %d Kilometer : %d Meter \n",d.Km,d.meter);  
}
```

Q9. Complex (real, imaginary)

Code :-

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

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

```
typedef struct Complex {  
    int real;  
    char imaginary[10];  
}Complex;
```

```
Complex store();
```

```
void display(Complex);
```

```
void main(){
```

```
    Complex c1,c2;
```

```
    c1=store();
```

```
    c2=store();
```

```
        printf("\n ...User define in Info... \n");
```

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

```
    display(c1);
```

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

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

```
    display(c2);
```

```
}
```

```
Complex store(){
```

```
    Complex c;
```

```
    printf("Enter Real :");
```

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

```
    printf("Enter imaginary :");
```

```
    scanf("%s",c.imaginary);
```

```
    return c;
```

```
}
```

```
void display(Complex c){
```

```
    printf("  %d : Real || %s : imaginary \n",c.real,c.imaginary);
```

```
}
```

Q10. Product (id, name, quantity, price)

-:Code :-

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

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

```
typedef struct Product{
```

```
    int Id;
```

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

```
    int quantity;
```

```
    float price;
```

```
}Product;
```

```
Product store();
```

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

```
void main(){
```

```
    Product p1,p2;
```

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

```
    p2=store();
```

```
        printf("\n ...User define in Info... \n");
```

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

```
    display(p1);
```

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

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

```
    display(p2);
```

```
}
```

```
Product store(){
```

```
    Product p;
```

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

```
    scanf("%d",&p.Id);
```

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

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

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

```
scanf("%d",&p.quantity);
printf("Enter Product Price :");
scanf("%f",&p.price);
return p;
}
void display(Product p){
    printf(" Product Id      : %d \n",p.Id);
    printf(" Product Name    : %s \n",p.name);
    printf(" Product Salary   : %d \n",p.quantity);
    printf(" Product price     : %.2f \n",p.price);
    printf(" Total Product price : %.2f \n",p.price*p.quantity);
}
```

By Pass by Address(array)

Q1. Student (rollNo, name, marks)

:-Code :-

//Student (rollNo, name, marks)

```
#include<stdio.h>
typedef struct Student{
    int rollNo;
    char name[20];
    int marks;
}Student;
void store(Student*,int);
void display(Student*,int);
void main(){
    int n;
    printf("Enter the size of array :");
    scanf("%d",&n);
    Student sarr[n];
    printf("\n ...User define Info... \n");
    printf("\n ----- \n");
    store(sarr,n);
    printf("\n ----- \n");
    display(sarr,n);
    printf("\n ----- \n");
}
void store(Student* s,int n){
    int i;
    for(i=0;i<n;i++){
        printf("\nEnter Student Roll No :");
        scanf("%d",&s[i].rollNo);
        printf("Enter Student Name :");
        scanf("%s",s[i].name);
        printf("Enter Student Marks :");
        scanf("%d",&s[i].marks);
    }
}
void display(Student* s,int n){
    int i;
```



```
for(i=0;i<n;i++){  
    printf("\n Student Roll No : %d \n",s[i].rollNo);  
    printf(" Student Name    : %s \n",s[i].name);  
    printf(" Student Marks   : %d \n",s[i].marks);  
}  
}
```

Q2. Employee (id, name, salary)

-:Code :-

//Employee (id, name, salary)

```
#include<stdio.h>
typedef struct Employ{
    int Id;
    char name[20];
    float Salary;
}Employ;
void store(Employ*,int);
void display(Employ*,int);
void main(){
    int n;
    printf("Enter the size of array :");
    scanf("%d",&n);
    Employ earr[n];
    printf("\n ...User define in Info... \n");
    printf("\n ----- \n");
    store(earr,n);
    printf("\n ----- \n");
    display(earr,n);
    printf("\n ----- \n");
}
void store(Employ* e,int n){
    int i;
    for(i=0;i<n;i++){
        printf("Enter Employee Id :");
        scanf("%d",&e[i].Id);
        printf("Enter Name :");
        scanf("%s",e[i].name);
        printf("Enter Salary :");
        scanf("%f",&e[i].Salary);
    }
}

void display(Employ* e,int n){
    int i;
    for(i=0;i<n;i++){
        printf("\n Employee Id    : %d \n",e[i].Id);
```

```
        printf(" Employee Name    : %s \n",e[i].name);  
        printf(" Employee        : %.2f \n",e[i].Salary);  
    }  
}
```

Q3. Admin (id, name, salary, allowance)

:-Code :-

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

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

```
typedef struct Admin{
```

```
    int Id;
```

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

```
    float Salary;
```

```
    float allo;
```

```
}Admin;
```

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

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

```
void main(){
```

```
    int n;
```

```
    printf("Enter the size of array :");
```

```
    scanf("%d",&n);
```

```
    Admin arr[n];
```

```
        printf("\n ...User define in Info... \n");
```

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

```
    store(arr,n);
```

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

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

```
    display(arr,n);
```

```
}
```

```
void store(Admin* a,int n){
```

```
    int i;
```

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

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

```
        scanf("%d",&a[i].Id);
```

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

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

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

```

        scanf("%f",&a[i].Salary);
        printf("Enter Allowance :");
        scanf("%f",&a[i].allo);
    }

}

void display(Admin* a,int n){
    int i;
    for(i=0;i<n;i++){
        printf(" Admin Id      : %d \n",a[i].Id);
        printf(" Admin Name    : %s \n",a[i].name);
        printf(" Admin Salary   : %.2f \n",a[i].Salary);
        printf(" Admin Allowance : %.2f \n",a[i].allo);
    }
}

```

Q4. HR (id, name, salary, commission)

Code :-

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

#include<stdio.h>
typedef struct hr{
    int Id;
    char name[20];
    float Salary;
    float Com;
}hr;
void store(hr*,int);
void display(hr*,int);

void main(){
    int n;
    printf("Enter the size of array :");
    scanf("%d",&n);
    hr harr[n];

    printf("\n ...User define in Info... \n");
    printf("\n ----- \n");
    store(harr,n);

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

    printf("\n ----- \n");
    display(harr,n);
    printf("\n ----- \n");
}

void store(hr* h,int n){
    int i;
    for(i=0;i<n;i++){
        printf("Enter Id :");
        scanf("%d",&h[i].Id);
        printf("Enter Name :");
        scanf("%s",h[i].name);
```

```
        printf("Enter Salary :");
        scanf("%f",&h[i].Salary);
        printf("Enter Commission :");
        scanf("%f",&h[i].Com);
    }
}
void display(hr* h,int n){
    int i;
    for(i=0;i<n;i++){
        printf("\n Id      : %d \n",h[i].Id);
        printf(" Name      : %s \n",h[i].name);
        printf(" Salary    : %.2f \n",h[i].Salary);
        printf(" Commission : %.2f \n",h[i].Com);
    }
}
```

Q5. SalesManager (id, name, salary, incentive, target)

-:Code :-

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

#include<stdio.h>

typedef struct SalesManager{
    int Id;
    char name[20];
    float Salary;
    float incentive;
    int target;
} SalesManager;
void store(SalesManager*,int);
void display(SalesManager*,int);

void main(){
    int n;
    printf("Enter the size of array :");
    scanf("%d",&n);
    SalesManager sarr[n];

    printf("\n ...User define in Info... \n");
    printf("\n ----- \n");
    store(sarr,n);

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

    printf("\n ----- \n");
    display(sarr,n);
    printf("\n ----- \n");
}

void store(SalesManager* s,int n){
    int i;
    for(i=0;i<n;i++){
        printf("Enter Id :");
```



```

scanf("%d",&s[i].Id);
printf("Enter Name :");
scanf("%s",s[i].name);
printf("Enter Salary :");
scanf("%f",&s[i].Salary);
printf("Enter Incentive :");
scanf("%f",&s[i].incentive);
printf("Enter Target :");
scanf("%d",&s[i].target);
}
}
void display(SalesManager* s,int n){
    int i;
    for(i=0;i<n;i++){
        printf("\n Id      : %d \n",s[i].Id);
        printf(" Name      : %s \n",s[i].name);
        printf(" Salary    : %.2f \n",s[i].Salary);
        printf(" incentive : %.2f \n",s[i].incentive);
        printf(" Id       : %d Sales\n",s[i].target);
    }
}

```

Q6.Date (date, month, year)

-:Code :-

```
//Date (date, month, year)
#include<stdio.h>
typedef struct Date{
    int day;
    int month;
    int year;
}Date;
void store(Date*,int);
void display(Date*,int);
void main(){
    int n;
    printf("Enter the size of array :");
    scanf("%d",&n);
    Date darr[n];
        printf("\n ...User define in Info... \n");
    printf("\n ----- \n");
    store(darr,n);
    printf("\n ----- \n");
    printf("\n ----- \n");
    display(darr,n);
}
void store(Date* d,int n){
    int i;
    for(i=0;i<n;i++){
        printf("Enter day :");
        scanf("%d",&d[i].day);
        printf("Enter Month :");
        scanf("%d",&d[i].month);
        printf("Enter Year :");
        scanf("%d",&d[i].year);
    }
}
void display(Date* d,int n){
    int i;
    for(i=0;i<n;i++){
        printf("  %d/%d/%d \n",d[i].day,d[i].month,d[i].year);
    }
}
```

Q7. Time (hour, min, sec)

:-Code :-

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

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

```
typedef struct Time{
```

```
    int hr;
```

```
    int min;
```

```
    int sec;
```

```
}Time;
```

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

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

```
void main(){
```

```
    int n;
```

```
    printf("Enter the size of array :");
```

```
    scanf("%d",&n);
```

```
    Time tarr[n];
```

```
        printf("\n ...User define in Info... \n");
```

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

```
    store(tarr,n);
```

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

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

```
    display(tarr,n);
```

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

```
}
```

```
Time store(Time* t,int n){
```

```
    int i;
```

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

```
        printf("Enter Hour :");
```

```
        scanf("%d",&t.hr);
```

```
        printf("Enter Minute :");
```

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

```
        printf("Enter Second :");
        scanf("%d",&t.sec);
    }
}
void display(Time* t,int n){
    int i;
    for(i=0;i<n;i++){
        printf("  %d : %d : %d \n",t.hr,t.min,t.sec);
    }
}
```

Q8. Distance (feet, inch)

:-Code :-

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

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

```
typedef struct Distance{
```

```
    int Km;
```

```
    int meter;
```

```
}Dis;
```

```
void store(Dis*,int);
```

```
void display(Dis*,int);
```

```
void main(){
```

```
    int n;
```

```
    printf("Enter the size of array :");
```

```
    scanf("%d",&n);
```

```
    Dis darr[n];
```

```
        printf("\n ...User define in Info... \n");
```

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

```
    store(darr,n);
```

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

```
    display(darr,n);
```

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

```
}
```

```
void store(Dis* d,int n){
```

```
    int i;
```

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

```
        printf("Enter KM :");
```

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

```
        printf("Enter Meter :");
```

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

```
    }
```

```
}
```

```
void display(Dis* d,int n){
```

```
    int i;
```

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

```
        printf("  %d Kilometer : %d Meter \n",d[i].Km,d[i].meter);
```

```
    }
```

```
}
```

Q9. Complex (real, imaginary)

:-Code :-

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

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

```
typedef struct Complex{
```

```
    int real;
```

```
    char imaginary[10];
```

```
}Complex;
```

```
void store(Complex*,int);
```

```
void display(Complex*,int);
```

```
void main(){
```

```
    int n;
```

```
    printf("Enter the size of array :");
```

```
    scanf("%d",&n);
```

```
    Complex carr[n];
```

```
        printf("\n ...User define in Info... \n");
```

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

```
    store(carr,n);
```

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

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

```
    display(carr,n);
```

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

```
}
```

```
void store(Complex* c,int n){
```

```
    int i;
```

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

```
        printf("\nEnter Real :");
```

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

```
        printf("Enter imaginary :");
```

```
        scanf("%s",c[i].imaginary);
```

```
    }
```

```
}
```

```
void display(Complex* c,int n){
```

```
int i;
for(i=0;i<n;i++){
    printf("\n  %d : Real || %s : imaginary \n",c[i].real,c[i].imaginary);
}
}
```

Q10. Product (id, name, quantity, price)

-:Code :-

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

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

```
typedef struct Product{
```

```
    int Id;
```

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

```
    int quantity;
```

```
    float price;
```

```
}Product;
```

```
void store(Product*,int);
```

```
void display(Product*,int);
```

```
void main(){
```

```
    int n;
```

```
    printf("Enter the size of array :");
```

```
    scanf("%d",&n);
```

```
    Product parr[n];
```

```
        printf("\n ...User define in Info... \n");
```

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

```
    store(parr,n);
```

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

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

```
    display(parr,n);
```

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

```
}
```

```
void store(Product* p,int n){
```

```
    int i;
```

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

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

```
        scanf("%d",&p[i].Id);
```

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

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

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



```

        scanf("%d",&p[i].quantity);
        printf("Enter Product Price :");
        scanf("%f",&p[i].price);
    }
}
void display(Product* p,int n){
    int i;
    for(i=0;i<n;i++){
        printf("\n Product Id      : %d \n",p[i].Id);
        printf(" Product Name      : %s \n",p[i].name);
        printf(" Product Salary    : %d \n",p[i].quantity);
        printf(" Product price     : %.2f \n",p[i].price);
        printf(" Total Product price : %.2f \n",p[i].price*p[i].quantity);
    }
}

```

By pass one structure variable to function by address

Q1. Student (rollNo, name, marks)

:-Code :-

```
//Student (rollNo, name, marks)
#include<stdio.h>
typedef struct Student{
    int rollNo;
    char name[20];
    int marks;
} Student;
void store(Student*);
void display(Student*);

void main(){
    Student s1,s2;
    store(&s1);
    store(&s2);
    printf("\n ...User define in Info... \n");
    printf("\n ----- \n");
    display(&s1);
    printf("\n ----- \n");
    printf("\n ----- \n");
    display(&s2);
}

void store(Student* s1){
    printf("Enter Student Roll No :");
    scanf("%d",&s1->rollNo);
    printf("Enter Student Name :");
    scanf("%s",s1->name);
    printf("Enter Student Marks :");
    scanf("%d",&s1->marks);
}

void display(Student* s1){
    printf(" Student Roll No : %d \n",s1->rollNo);
    printf(" Student Name   : %s \n",s1->name);
    printf(" Student Marks   : %d \n",s1->marks);
}
```

Q2. Employee (id, name, salary)

-:Code :-

```
//Employee (id, name, salary)
#include<stdio.h>
typedef struct Employ{
    int Id;
    char name[20];
    float Salary;
}Employ;
void store(Employ*);
void display(Employ*);
void main(){
    Employ e1,e2;
    store(&e1);
    store(&e2);
    printf("\n ...User define in Info... \n");
    printf("\n ----- \n");
    display(&e1);
    printf("\n ----- \n");
    display(&e2);
}
void store(Employ* e1){

    printf("Enter Employee Id :");
    scanf("%d",&e1->Id);
    printf("Enter Name :");
    scanf("%s",e1->name);
    printf("Enter Salary :");
    scanf("%f",&e1->Salary);
}
void display(Employ* e1){
    printf(" Employee Id    : %d \n",e1->Id);
    printf(" Employee Name   : %s \n",e1->name);
    printf(" Employee       : %.2f \n",e1->Salary);
}
```

Q3. Admin (id, name, salary, allowance)

Code :-

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

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

```
typedef struct Admin{  
    int Id;  
    char name[20];  
    float Salary;  
    float allo;
```

```
}Admin;
```

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

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

```
void main(){
```

```
    Admin a1,a2;
```

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

```
    store(&a2);
```

```
        printf("\n ...User define in Info... \n");
```

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

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

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

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

```
    display(&a2);
```

```
}
```

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

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

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

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

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

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

```
    scanf("%f",&a1->Salary);
```

```
    printf("Enter Allowance :");
    scanf("%f",&a1->allo);
}
void display(Admin* a1){
    printf(" Admin Id      : %d \n",a1->Id);
    printf(" Admin Name    : %s \n",a1->name);
    printf(" Admin Salary   : %.2f \n",a1->Salary);
    printf(" Admin Allowance : %.2f \n",a1->allo);
}
```

Q4. HR (id, name, salary, commission)

Code :-

```
//HR (id, name, salary, commission)
#include<stdio.h>
typedef struct hr{
    int Id;
    char name[20];
    float Salary;
    float Com;
}hr;
void store(hr*);
void display(hr*);

void main(){
    hr h1,h2;
    store(&h1);
    store(&h2);
    printf("\n ...User define in Info... \n");
    printf("\n ----- \n");
    display(&h1);

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

    printf("\n ----- \n");
    display(&h2);

}

void store(hr* h1){
    printf("Enter Id :");
    scanf("%d",&h1->Id);
    printf("Enter Name :");
    scanf("%s",h1->name);
    printf("Enter Salary :");
    scanf("%f",&h1->Salary);
    printf("Enter Commission :");
    scanf("%f",&h1->Com);
```

```
}  
void display(hr* h1){  
    printf(" Id      : %d \n",h1->Id);  
    printf(" Name     : %s \n",h1->name);  
    printf(" Salary    : %.2f \n",h1->Salary);  
    printf(" Commission : %.2f \n",h1->Com);  
}
```

Q5. SalesManager (id, name, salary, incentive, target)

-:Code :-

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

#include<stdio.h>

typedef struct SalesManager{
    int Id;
    char name[20];
    float Salary;
    float incentive;
    int target;
} SalesManager;
void store(SalesManager*);
void display(SalesManager*);

void main(){
    SalesManager s1,s2;
    store(&s1);
    store(&s2);
    printf("\n ...User define in Info... \n");
    printf("\n ----- \n");
    display(&s1);

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

    printf("\n ----- \n");
    display(&s2);

}

void store(SalesManager* s1){

    printf("Enter Id :");
    scanf("%d",&s1->Id);
    printf("Enter Name :");
```



```
scanf("%s",s1->name);
printf("Enter Salary :");
scanf("%f",&s1->Salary);
printf("Enter Incentive :");
scanf("%f",&s1->incentive);
printf("Enter Target :");
scanf("%d",&s1->target);

}

void display(SalesManager* s2){
    printf(" Id      : %d \n",s2->Id);
    printf(" Name    : %s \n",s2->name);
    printf(" Salary   : %.2f \n",s2->Salary);
    printf(" incentive : %.2f \n",s2->incentive);
    printf(" Id      : %d Sales\n",s2->target);
}
```

Q6.Date (date, month, year)

:-Code :-

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

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

```
typedef struct Date{
```

```
    int day;
```

```
    int month;
```

```
    int year;
```

```
}Date;
```

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

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

```
void main(){
```

```
    Date d1,d2;
```

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

```
    store(&d2);
```

```
        printf("\n ...User define in Info... \n");
```

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

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

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

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

```
    display(&d2);
```

```
}
```

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

```
    printf("Enter day :");
```

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

```
    printf("Enter Month :");
```

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

```
    printf("Enter Year :");
```

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

```
}
```

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

```
    printf("  %d/%d/%d \n",d->day,d->month,d->year);
```

```
}
```

Q7. Time (hour, min, sec)

Code :-

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

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

```
typedef struct Time{
```

```
    int hr;
```

```
    int min;
```

```
    int sec;
```

```
}Time;
```

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

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

```
void main(){
```

```
    Time t1,t2;
```

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

```
    store(&t2);
```

```
        printf("\n ...User define in Info... \n");
```

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

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

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

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

```
    display(&t2);
```

```
}
```

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

```
    printf("Enter Hour :");
```

```
    scanf("%d",&t->hr);
```

```
    printf("Enter Minute :");
```

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

```
    printf("Enter Second :");
```

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

```
}
```

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

```
    printf("  %d : %d : %d \n",t->hr,t->min,t->sec);
```

```
}
```

Q8. Distance (feet, inch)

:-Code :-

```
//Distance ( feet, inch)
#include<stdio.h>
typedef struct Distance{
    int Km;
    int meter;
}Dis;
void store(Dis*);
void display(Dis*);

void main(){
    Dis d1,d2;
    store(&d1);
    store(&d2);
    printf("\n ...User define in Info... \n");
    printf("\n ----- \n");
    display(&d1);
    printf("\n ----- \n");
    printf("\n ----- \n");
    display(&d2);
}

void store(Dis* d){
    printf("Enter KM :");
    scanf("%d",&d->Km);
    printf("Enter Meter :");
    scanf("%d",&d->meter);
}

void display(Dis* d){
    printf("  %d Kilometer : %d Meter \n",d->Km,d->meter);
}
```

Q9. Complex (real, imaginary)

:-Code :-

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

#include<stdio.h>
typedef struct Complex {
    int real;
    char imaginary[10];
}Complex;
void store(Complex*);
void display(Complex*);
void main(){
    Complex c1,c2;
    store(&c1);
    store(&c2);
    printf("\n ...User define in Info... \n");
    printf("\n ----- \n");
    display(&c1);
    printf("\n ----- \n");
    printf("\n ----- \n");
    display(&c2);
}
void store(Complex* c){
    printf("Enter Real :");
    scanf("%d",&c->real);
    printf("Enter imaginary :");
    scanf("%s",c->imaginary);
}
void display(Complex* c){
    printf("  %d : Real || %s : imaginary \n",c->real,c->imaginary);
}
```

Q10. Product (id, name, quantity, price)

-:Code :-

```
//Product (id, name, quantity, price)
#include<stdio.h>
typedef struct Product{
    int Id;
    char name[20];
    int quantity;
    float price;
}Product;
void store(Product*);
void display(Product*);

void main(){
    Product p1,p2;
    store(&p1);
    store(&p2);
    printf("\n ...User define in Info... \n");
    printf("\n ----- \n");
    display(&p1);

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

    printf("\n ----- \n");
    display(&p2);

}

void store(Product* p){

    printf("Enter Product Id :");
    scanf("%d",&p->Id);
    printf("Enter Product Name :");
    scanf("%s",p->name);
    printf("Enter Product Quantity :");
    scanf("%d",&p->quantity);
    printf("Enter Product Price :");
    scanf("%f",&p->price);
```

```
}  
void display(Product* p){  
    printf(" Product Id      : %d \n",p->Id);  
    printf(" Product Name    : %s \n",p->name);  
    printf(" Product Salary   : %d \n",p->quantity);  
    printf(" Product price     : %.2f \n",p->price);  
    printf(" Total Product price : %.2f \n",p->price*p->quantity);  
}
```