Assignment – 13 || Structure

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Q1)Student

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

struct Student{
    int rollNo;
    char name[30];
    int marks5[2]; ///marks of two subjects
};

int main(){
    struct Student s1, s2, s3;
    s1.rollNo = 1;
    printf("Enter name\n");
    scanf("%s", s1.name);
    for (int i = 0; i < 2; i++)
    {
        printf("Enter marks for %d\n", i+1);
        scanf("%d", &s1.marks5[i]);
    }

    s2.rollNo = 2;
    strcpy(s2.name, "Mike");
    s2.marks5[0] = 60;
    s2.marks5[1] = 90;

    s3.rollNo = 3;
    strcpy(s3.name, "Messi");
    s3.marks5[0] = 70;
    s3.marks5[1] = 95;

    printf("\nRollNo-> %d  Name-> %s  Marks1->%d  Marks2->%d\n",
s1.rollNo, s1.name, s1.marks5[0], s1.marks5[1]);
    printf("\nRollNo-> %d  Name-> %s  Marks1->%d  Marks2->%d\n",
s2.rollNo, s2.name, s2.marks5[0], s2.marks5[1]);
    printf("\nRollNo-> %d  Name-> %s  Marks1->%d  Marks2->%d\n",
s3.rollNo, s3.name, s3.marks5[0], s3.marks5[1]);
    return 0;
}
```

```
Enter name
Arjun
Enter marks for 1
85
Enter marks for 2
90

RollNo-> 1  Name-> Arjun  Marks1->85  Marks2->90

RollNo-> 2  Name-> Mike  Marks1->60  Marks2->90

RollNo-> 3  Name-> Messi  Marks1->70  Marks2->95
```

Q2)Employee

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

struct Employee{
    int id;
    char name[30];
    int salary;
};

int main(){
    struct Employee e1, e2;
    e1.id = 1;
    strcpy(e1.name, "Messi");
    printf("Enter name\n");
    scanf("%s", e1.name);
    printf("Enter salary\n");
    scanf("%d", &e1.salary);

    e2.id = 2;
    strcpy(e2.name, "Ronaldo");
    e2.salary = 900000;

    printf("\nid-> %d  Name-> %s  Salary->%d\n", e1.id, e1.name, e1.salary);
    printf("\nid-> %d  Name-> %s  Salary->%d\n", e2.id, e2.name, e2.salary);
    return 0;
}
```

```
Enter name
Yash
Enter salary
25000

id-> 1  Name-> Yash  Salary->25000

id-> 2  Name-> Ronaldo  Salary->900000
```

Q3) Admin

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

struct Admin{
    int id;
    char name[30];
    int salary;
    int allowance;
};

int main(){
    struct Admin a1, a2;
    a1.id = 1;
    printf("Enter name\n");
    scanf("%s", a1.name);
    printf("Enter salary\n");
    scanf("%d", &a1.salary);
    printf("Enter allowance\n");
    scanf("%d", &a1.allowance);

    a2.id = 2;
    strcpy(a2.name, "Ravi");
    a2.salary = 16000;
    a2.allowance = 6500;

    printf("\nid-> %d  Name-> %s  Salary->%d  Allowance->%d\n", a1.id, a1.name,
a1.salary, a1.allowance);
    printf("\nid-> %d  Name-> %s  Salary->%d  Allowance->%d\n", a2.id, a2.name,
a2.salary, a2.allowance);
    return 0;
}
```

```
Enter name
Nayan
Enter salary
24000
Enter allowance
3000

id-> 1  Name-> Nayan  Salary->24000  Allowance->3000

id-> 2  Name-> Ravi  Salary->16000  Allowance->6500
```

Q4) HR

```
id-> 1  Name-> Jay  Salary->25000  Commision->3000

id-> 2  Name-> Jainish  Salary->30000  Commision->4000
```

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

struct HR{
    int id;
    char name[30];
    int salary;
    int commision;
};

int main(){
    struct HR h1, h2;
    h1.id = 1;
    printf("Enter name\n");
    scanf("%s", h1.name);
    printf("Enter salary\n");
    scanf("%d", &h1.salary);
    printf("Enter Commision\n");
    scanf("%d", &h1.commision);

    h2.id = 2;
    strcpy(h2.name, "Jainish");
    h2.salary = 30000;
    h2.commision = 4000;

    printf("\nid-> %d  Name-> %s  Salary->%d  Commision->%d\n", h1.id, h1.name, h1.salary,
h1.commision);
    printf("\nid-> %d  Name-> %s  Salary->%d  Commision->%d\n\n", h2.id, h2.name,
h2.salary, h2.commision);
    return 0;
}
```

```
Enter name
Hemal
Enter salary
27000
Enter Commision
2500

id-> 1  Name-> Hemal  Salary->27000  Commision->2500

id-> 2  Name-> Jainish  Salary->30000  Commision->4000
```

Q5) SalesManager

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

struct SalesManager{
    int id;
```

```
    char name[30];
    int salary;
    int incentive;
    int target;
};

int main(){
    struct SalesManager s1, s2;
    s1.id = 1;
    printf("Enter Name for s1\n");
    scanf("%s", s1.name);
    printf("Enter Salary for s1\n");
    scanf("%d", &s1.salary);
    printf("Enter incentive for s1\n");
    scanf("%d", &s1.incentive);
    printf("Enter incentive for s1\n");
    scanf("%d", &s1.target);

    s2.id = 2;
    strcpy(s2.name, "Jainish");
    s2.salary = 30000;
    s2.incentive = 4000;
    s2.target = 250;

    printf("\nid-> %d  Name-> %s  Salary->%d  Incentive->%d\n Target->%d\n",
s1.id, s1.name, s1.salary, s1.incentive, s1.target);
    printf("\nid-> %d  Name-> %s  Salary->%d  Incentive->%d\n Target->%d\n\n",
s2.id, s2.name, s2.salary, s2.incentive, s2.target);
    return 0;
}
```

```
Enter Name for s1
Rohit
Enter Salary for s1
27000
Enter incentive for s1
5000
Enter incentive for s1
150

id-> 1  Name-> Rohit  Salary->27000  Incentive->5000
 Target->150

id-> 2  Name-> Jainish  Salary->30000  Incentive->4000
 Target->250
```

Q6) Date

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

```c
struct Date{
    int date;
    int month;
    int year;
};

int main(){
    struct Date d1,d2;
    printf("Enter Date\n");
    scanf("%d", &d1.date);
    printf("Enter Month\n");
    scanf("%d", &d1.month);
    printf("Enter Year\n");
    scanf("%d", &d1.year);

    d2.date = 2;
    d2.month = 12;
    d2.year = 2024;

    printf("\nDate-> %d  Month-> %d  Year->%d\n", d1.date, d1.month, d1.year);
    printf("\nDate-> %d  Month-> %d  Year->%d\n", d2.date, d2.month, d2.year);
    return 0;
}
```

```
Enter Date
1
Enter Month
9
Enter Year
1999

Date-> 1  Month-> 9  Year->1999

Date-> 2  Month-> 12  Year->2024
```

Q7) Time

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

struct Time{
    int hr;
    int min;
    int sec;
};

int main(){
    struct Time t1,t2;
    printf("Enter Hour\n");
    scanf("%d", &t1.hr);
    printf("Enter Minutes\n");
    scanf("%d", &t1.min);
    printf("Enter Seconds\n");
```

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

    t2.hr = 2;
    t2.min = 20;
    t2.sec = 23;

    printf("\nHr-> %d  Minutes-> %d  Seconds->%d\n", t1.hr, t1.min, t1.sec);
    printf("\Hour-> %d  Minutes-> %d  Seconds->%d\n", t2.hr, t2.min, t2.sec);
    return 0;
}
```

```
Enter Hour
3
Enter Minutes
18
Enter Seconds
29

Hr-> 3  Minutes-> 18  Seconds->29
Hour-> 2  Minutes-> 20  Seconds->23
```

Q8) Distance

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

struct Distance{
    float feet;
    float inch;
};

int main(){
    struct Distance t1,t2;
    printf("Enter Feet\n");
    scanf("%f", &t1.feet);
    printf("Enter Inch\n");
    scanf("%f", &t1.inch);

    t2.feet = 2;
    t2.inch = 20;

    printf("\n%.2f feets, %.2f  inchs", t1.feet, t1.inch);
    printf("\n%.2f feets, %.2f  inchs", t1.feet, t2.inch);
    return 0;
}
```

```
Enter Feet
5
Enter Inch
11

5.00 feets, 11.00  inchs
5.00 feets, 20.00  inchs
```

Q9) Complex

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

struct Complex{
    int real;
    int img;
};

int main(){
    struct Complex c1,c2;
    printf("Enter Real Part\n");
    scanf("%d", &c1.real);
    printf("Enter Imaginary\n");
    scanf("%d", &c1.img);

    c2.real = 2;
    c2.img = 20;

    printf("\n%d + %di\n", c1.real, c1.img);
    printf("\n%d + %di\n\n", c2.real, c2.img);
    return 0;
}
```

```
Enter Real Part
2
Enter Imaginary
3

2 + 3i

2 + 20i
```

Q10) Product

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

struct Product{
    int id;
    char name[30];
    int quantity;
```

```c
    int price;
};

int main(){
    struct Product p1, p2;
    p1.id = 1;
    printf("Enter Name of product1\n");
    scanf("%s", p1.name);
    printf("Enter quantity for product1\n");
    scanf("%d", &p1.quantity);
    printf("Enter price for product1\n");
    scanf("%d", &p1.price);

    p2.id = 2;
    strcpy(p2.name, "Milk");
    p2.quantity = 5;
    p2.price = 40;

    printf("\nid-> %d  Name-> %s  quantity->%d  price->%d totalAmount->%d rs.\n",
p1.id, p1.name, p1.quantity, p1.price, p1.quantity * p1.price);
    printf("\nid-> %d  Name-> %s  quantity->%d  price->%d totalAmount->%d rs.\n",
p2.id, p2.name, p2.quantity, p2.price, p2.quantity * p2.price);
    return 0;
}
```

```
Enter Name of product1
Pendrive
Enter quantity for product1
2
Enter price for product1
560

id-> 1  Name-> Pendrive  quantity->2  price->560 totalAmount->1120 rs.

id-> 2  Name-> Milk  quantity->5  price->40 totalAmount->200 rs.
```

------END------