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Day 11

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Contents

- WAP to input name, roll number and marks in 5 subjects for a student, and display it.
- WAP to input name, roll number and marks in 5 subjects for n number of students. Write functions to:-

  a.Find total marks and percentage of all n students.

  b.Display details of a student with a given roll number.

  c.Display the details for all the students having percentage in a given range.

Contents

- WAP to enter id, name, age and basic salary of n number of employees. Calculate the gross salary of all the employees and display it along with all other details . [Gross salary= Basic salary + DA + HRA,

  DA = 80% of Basic salary

  HRA=10% of Basic salary]

Program to Store Information(name, roll and marks) of a Student Using Structure

```
#include <stdio.h>
struct student{
    char name[50];
    int roll;
    float marks[5];
};

int main(){
    struct student s;
    int i, n;
    printf("Enter information of student:\n\n");
    printf("Enter name: ");
    scanf("%s",s.name);
    printf("Enter roll number: ");
    scanf(" %d",&s.roll);
    printf("Enter marks: ");
    for (j=0;i<n;i++)
          scanf("%f",&s.marks[i]);
```

Program to Store Information(name, roll and marks) of a Student Using Structure

```
    printf("\nDisplaying Information\n");
    printf("Name: %s\n",s.name);
    printf("Roll: %d\n",s.roll);
    for (i=0;i<n;i++)
        printf("Marks: %.2f\n",s.marks[i]);
    return 0;
}
```

Program to Store Information(name, roll and marks) of n number Student Using Structure

```
#include <stdio.h>
struct student{
    char name[50];
    int roll;
    float marks[5]; float total; float perc;
};

int main(){
    struct student s[10];
    int i, j,n, sum=0;
    printf(“\n Enter the no of students”);
    scanf(“%d”,&n);
    printf("Enter information of student:\n\n");

    for(i=0;i<n;i++)
     {
        printf("Enter name: ");
        scanf("%s",s[i].name);
        printf("Enter roll number: ");
        scanf("%d",&s[i].roll);
        printf("Enter marks: ");
        sum=0;
```

Program to Store Information(name, roll and marks) of n number Student Using Structure

```
    for (j=0;j<5;j++){
            scanf("%f",&s[i].marks[j]);
             sum=sum+s[i].marks[j];}
          s[i].tot=sum;
          s[i].perc= sum/5;
    }
printf("\nDisplaying Information\n");
    for(i=0;i<n;i++)
      {  if(input==s[i].roll)
         {
          printf("Name: %s\n",s[i].name);
           printf("Roll: %d\n",s[i].roll);
            for (j=0;j<5;j++)
                 printf("Marks: %.2f\n",s[i].marks[j]);
       printf("Total: %.2f\n",s[i].tot);
        printf("Perc: %.2f\n",s[i].perc);}
   }

     return 0;
}
```

Note: This line is for displaying a student detail in a given range.

```
        if(s[i].perc>=lower && s[i]. perc<=upper)
```

Program to Add Two Distances (in inch-feet) System Using Structures

```
#include <stdio.h>
 struct Distance{
      int feet;
      float inch;
  }d1,d2,sum;

int main(){
    printf("Enter information for 1st distance\n");
    printf("Enter feet: ");
    scanf("%d",&d1.feet);
    printf("Enter inch: ");
    scanf("%f",&d1.inch);
    printf("\nEnter infromation for 2nd distance\n");
    printf("Enter feet: ");
    scanf("%d",&d2.feet);
    printf("Enter inch: ");
    scanf("%f",&d2.inch);
    sum.feet=d1.feet+d2.feet;
    sum.inch=d1.inch+d2.inch;
```

Program to Add Two Distances (in inch-feet) System Using Structures ..

```
If inch is greater than 12, changing it to feet. */
    if (sum.inch>12.0)
    {
        sum.inch=sum.inch-12.0;
        ++sum.feet;
    }
    printf("\nSum of distances=%d\'-%.1f\"",sum.feet,sum.inch);
    return 0;
}
```

Program to Add Two Complex Numbers by Passing Structure to a Function

```
#include <stdio.h>
typedef struct complex{
    float real;
    float imag;
};

complex add(complex n1,complex n2);

int main(){
    struct complex n1,n2,temp;
    printf("For 1st complex number \n");
    printf("Enter real and imaginary respectively:\n");
    scanf("%f%f",&n1.real,&n1.imag);
    printf("\nFor 2nd complex number \n");
    printf("Enter real and imaginary respectively:\n");
    scanf("%f%f",&n2.real,&n2.imag);
    temp=add(n1,n2);
    printf("Sum=%.1f+%.1fi",temp.real,temp.imag);
    return 0;
}
```

Program to Add Two Complex Numbers by Passing Structure to a Function..

```
complex add(complex n1,complex n2){
    struct complex temp;
    temp.real=n1.real+n2.real;
    temp.imag=n1.imag+n2.imag;
    return(temp);
}
```

Program to Store Information of 10 Students Using Structure

```
#include <stdio.h>
struct student{
    char name[50];
    int roll;
    float marks;
};
int main(){
    struct student s[10];
    int i;
    printf("Enter information of students:\n");
    for(i=0;i<10;++i)
    {
        s[i].roll=i+1;
        printf("\nFor roll number %d\n",s[i].roll);
        printf("Enter name: ");
        scanf("%s",s[i].name);
        printf("Enter marks: ");
        scanf("%f",&s[i].marks);
        printf("\n");
    }
```

Program to Store Information of 10 Students Using Structure..

```
printf("Displaying information of students:\n\n");
    for(i=0;i<10;++i)
    {
     printf("\nInformation for roll number %d:\n",i+1);
     printf("Name: ");
     puts(s[i].name);
     printf("Marks: %.1f",s[i].marks);
   }
   return 0;
}
```

Structure within structure

```
#include <stdio.h>
struct stud_Res
{
	int rno;
	char std[10];
	struct stud_Marks
	{
		char subj_nm[30];
		int subj_mark;
	}marks;
}result;
```

structure within structure

```
void main()
{
        printf("\n\t Enter Roll Number : ");
        scanf("%d",&result.rno);
        printf("\n\t Enter Standard : ");
        scanf("%s",result.std);
        printf("\n\t Enter Subject Code : ");
        scanf("%s",result.marks.subj_nm);
        printf("\n\t Enter Marks : ");
        scanf("%d",&result.marks.subj_mark);
        printf("\n\n\t Roll Number : %d",result.rno);
        printf("\n\n\t Standard : %s",result.std);
        printf("\nSubject Code : %s",result.marks.subj_nm);
        printf("\n\n\t Marks : %d",result.marks.subj_mark);

}
```

Array in structure

```
# #include <stdio.h>

struct result
{
	int rno, mrks[5];
	char nm;
}res;

void main()
{
	int i,total;
	total = 0;
	printf("\n\t Enter Roll Number : ");
	scanf("%d",&res.rno);
	printf("\n\t Enter Marks of 3 Subjects : ");
```

Thank You