

## ASSIGNMENT 3

### Part 3 Insertion sort

CODE :

```
//Merwin Pinto
//202100102
#include<stdio.h>
struct student
{
    char name[20];
    int srn;
    int total_marks;
}s[10],temp;

void insert(struct student s[10],int n);

int main()
{
    int i,j,n;
    printf("Enter no of students : ");
    scanf("%d",&n);
    printf("\nEnter info of student ( srn , name , marks) :\n");
    for(i=0;i<n;i++)
    {
        printf("Student %d information \n\n",i+1);
        printf("Student srn :");
        scanf("%d",&s[i].srn);
        printf("Student name :");
        scanf("%s",s[i].name);
        printf("Student total_marks :");
        scanf("%d",&s[i].total_marks);
        printf("\n\n");
    }
}
```

```

insert(s,n);

printf("Info entered for lowest to highest marks \n");
printf("=====\\n");
printf("\n SRN \t\t Name \t\t Total marks \n");
printf("=====\\n");
for(i=0;i<n;i++)
{
    printf("%d \t\t ,s[i].srn);
    printf("%s \t\t ,s[i].name);
    printf("%d \n",s[i].total_marks);
    printf("\\n");
}
return 0;
}

```

```

void insert(struct student s[10],int n)
{
    int i, j;
    for (i = 1; i < n; i++)
    {
        temp = s[i];
        j = i - 1;

        while( (temp.total_marks < s[j].total_marks ) && (j>=0))
        {
            s[j+1] = s[j];

```

```
j = j - 1;  
}  
s[j + 1] = temp;  
}  
}
```

OUTPUT :

```
Enter info of student ( srn , name , marks) :  
Student 1 information  
  
Student srn :1  
Student name :Merwin  
Student total_marks :100  
  
Student 2 information  
  
Student srn :2  
Student name :Rohit  
Student total_marks :50  
  
Student 3 information  
  
Student srn :3  
Student name :Danu  
Student total_marks :90  
  
Info entered for lowest to highest marks  
=====
```

SRN	Name	Total marks
2	Rohit	50
3	Danu	90
1	Merwin	100

```
...Program finished with exit code 0  
Press ENTER to exit console.
```