

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.

```