Problem Statement: Implemention of sorting the Student Record using quick sort technique that can overcome all the issues related.

```
#include<stdio.h>
struct student
{
int roll;
int sem;
int marks;
};
void quicksort (struct student s [], int l, int h)
{
int i, j, p;
struct student temp[20]
if(l<h)
{
p=l;
i=l;
j=h;
while(i<j)
{
while(s[i]. roll<=s[p]. roll&&i<=h)
{
i++;
}
while(s[j]. roll>s[p]. roll)
{
j--;
}
if(i<j)
{
```

```
temp[i]. roll=s[i]. roll;
temp[i]. sem=s[i]. sem;
temp[i]. marks=s[i]. marks
s[i]. roll=s[j]. roll;
s[i]. sem=s[j]. sem;
s[i]. marks=s[j]. marks
s[j]. roll=temp[i]. roll;
s[j]. sem=temp[i]. sem;
s[j]. marks=temp[i]. marks;
}
}
temp[i]. roll=s[j]. roll;
temp[i]. sem=s[j]. sem;
temp[i]. marks=s[j]. marks;
s[j]. roll=s[p]. roll;
s[j]. sem=s[p]. sem;
s[j]. marks=s[p]. marks;
s[p]. roll=temp[i]. roll;
s[p]. sem=temp[i]. sem;
s[p]. marks=temp[i]. marks;
quicksort (s, l, j-1);
quicksort (s, j+1, h);
}
}
int main ()
{
struct student s[20];
 int i, j, n;
printf (“\nEnter the number of students:”);
scanf (“%d”, &n);
printf (“\nEnter the roll, sem, marks of a student”);
```

```
for (i=0; i<n; i++)
{
scanf (“%d%d%d”, &s[i]. roll, &s[i]. sem, &s[i]. marks);
}
for (i=0; i<n; i++)
{
quicksort (s, 0, n-1);
}
printf (“The sorted array is: “);
for (i=0; i<n; i++)
{
printf (“%d\t%d\t%d\n”, s[i]. roll, s[i]. sem, s[i]. marks);
}
return 0;
}
```