

### **Program: Niyati Savant LOOK Algorithm**

#### **Code:**

```
#include<stdio.h>

#include<stdlib.h>

struct track
{
    int track_no;
    int covered;
};

void main()
{
    printf("Niyati Savant--LOOK \n");
    struct track track_order[20];
    int i,j,k,no_tracks,temp,diff=0,x=0,head_movement=0,curr_head;

    printf("Enter the number of Tracks: ");
    scanf("%d",&no_tracks);

    for(i=0;i<no_tracks;i++)
    {
        printf("Enter Track %d :",i+1);
        scanf("%d",&track_order[i].track_no);
        track_order[i].covered=0;
    }

    printf("Enter the cuurent Head position:");
    scanf("%d",&curr_head);
    track_order[no_tracks].track_no=curr_head;
    track_order[no_tracks].covered=0;
    no_tracks=no_tracks+1;
```

```

for(i=0;i<no_tracks;i++)
{
    for(j=0;j<no_tracks;j++)
    {
        if(track_order[i].track_no < track_order[j].track_no)
        {
            temp=track_order[i].track_no;
            track_order[i].track_no=track_order[j].track_no;
            track_order[j].track_no=temp;
        }
    }
}

```

```

printf("\n Moving towards Larger value\n");

```

```

//finding current

```

```

for(i=0;i<no_tracks;i++)
{
    if(track_order[i].track_no==curr_head)
    {
        k=i;
        break;}
}

```

```

while(x!=no_tracks)

```

```

{
    for(i=k+1;i<no_tracks;i++)
    {
        if(track_order[i].covered==0)
        {
            diff=abs(curr_head-track_order[i].track_no);

```

```

    head_movement +=diff;
    curr_head=track_order[i].track_no;
    track_order[i].covered=1;
    printf("\n Track chosen: %d & The difference : %d",curr_head,diff);
}
}
for(i=k-1;i>=0;i--)
{
    if(track_order[i].covered==0)
    {
        diff=abs(curr_head-track_order[i].track_no);
        head_movement +=diff;
        curr_head=track_order[i].track_no;
        track_order[i].covered=1;
        printf("\n Track chosen: %d & The difference : %d",curr_head,diff);
    }
}
x++;
}
printf("\n The total Head Movement is %d",head_movement);
}

```

**Output:**

Niyati Savant--LOOK

Enter the number of Tracks: 7

Enter Track 1 :82

Enter Track 2 :170

Enter Track 3 :43

Enter Track 4 :140

Enter Track 5 :24

Enter Track 6 :16

Enter Track 7 :190

Enter the current Head position:50

Moving towards Larger value

Track chosen: 82 & The difference : 32

Track chosen: 140 & The difference : 58

Track chosen: 170 & The difference : 30

Track chosen: 190 & The difference : 20

Track chosen: 43 & The difference : 147

Track chosen: 24 & The difference : 19

Track chosen: 16 & The difference : 8

The total Head Movement is 314