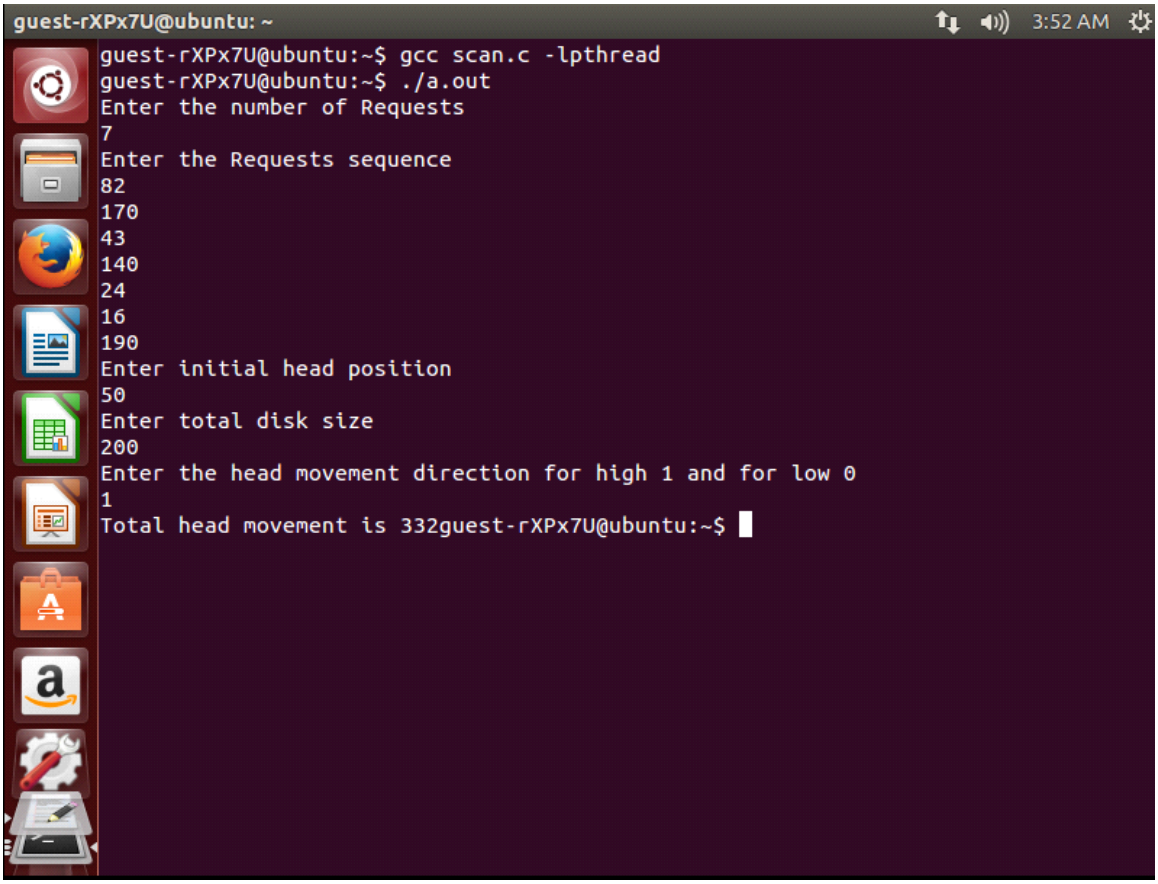
3. C-look

```
#include <stdio.h>
#include <stdlib.h>
int main()
{
  int RQ[100], i, j, n, TotalHeadMoment = 0, initial, size, move;
  printf("Enter the number of Requests\n");
  scanf("%d", &n);
  printf("Enter the Requests sequence\n");
  for (i = 0; i < n; i++)
  scanf("%d", &RQ[i]);
  printf("Enter initial head position\n");
  scanf("%d", &initial);
  printf("Enter total disk size\n");
  scanf("%d", &size);
  printf("Enter the head movement direction for high 1 and for low 0\n");
  scanf("%d", &move);
  // logic for C-look disk scheduling
  /*logic for sort the request array */
  for (i = 0; i < n; i++)
  {
  for (j = 0; j < n - i - 1; j++)
  {
  if (RQ[j] > RQ[j + 1])
  {
```

```
int temp;
temp = RQ[j];
RQ[j] = RQ[j + 1];
RQ[j + 1] = temp;
}
}
}
int index;
for (i = 0; i < n; i++)
{
if (initial < RQ[i])
{
index = i;
break;
}
}
// if movement is towards high value
if (move == 1)
{
for (i = index; i < n; i++)
{
TotalHeadMoment = TotalHeadMoment + abs(RQ[i] - initial);
initial = RQ[i];
}
for (i = 0; i < index; i++)
```

```
  {
  TotalHeadMoment = TotalHeadMoment + abs(RQ[i] - initial);
  initial = RQ[i];
  }
  }
  // if movement is towards low value
  else
  {
  for (i = index - 1; i >= 0; i--)
  {
  TotalHeadMoment = TotalHeadMoment + abs(RQ[i] - initial);
  initial = RQ[i];
  }
  for (i = n - 1; i >= index; i--)
  {
  TotalHeadMoment = TotalHeadMoment + abs(RQ[i] - initial);
  initial = RQ[i];
  }
  }
  printf("Total head movement is %d", TotalHeadMoment);
  return 0;
}
```

OUTPUT:


guest-rXPx7U@ubuntu: ~
3:52 AM
guest-rXPx7U@ubuntu:~$ gcc scan.c -lpthread
guest-rXPx7U@ubuntu:~$ ./a.out
Enter the number of Requests
7
Enter the Requests sequence
82
170
43
140
24
16
190
Enter initial head position
50
Enter total disk size
200
Enter the head movement direction for high 1 and for low 0
1
Total head movement is 332guest-rXPx7U@ubuntu:~$