

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
int main()
```

```
{    int i,j,temp,Sum1=0,Sum2=0,CPOS,ID,TD=0,ID1;
```

```
int array[15]={143,86,1470,913,1774,948,1509,1022,1750,130,4999,0};
```

```
    printf("Number of Disc in the cylinder:(0-4999)= 5000 \n");
```

```
    printf("Current request being processed in cylinder : 143 \n");
```

```
    printf("Previous request that has been processed : 125 \n");
```

```
    //it is just showing that is is moving toward positive direction
```

```
    printf("Elements in FIFO list : \n");
```

```
    printf("143,86 1470 913 1774 948 1509 1022 1750 130");
```

```
    //also store boundary value
```

```
    int min=array[0];
```

```
    for(i=0;i<12;++i)
```

```
{
```

```
    for(j=i+1;j<12;++j)
```

```
    {
```

```
        if(array[i]>array[j])
```

```
        {
```

```
            temp=array[i];
```

```
            array[i]=array[j];
```

```
            array[j]=temp;
```

```
        }
```

```
    }
```

```
}
```

```
printf("\nElements in Sorted form: ");
```

```
for(i=0;i<12;++i)

{

    printf("%d \t",array[i]);

}

printf("\nCurrent position of the pointer in sorted array : ");

for(i=0;i<12;++i)

{

    if(array[i]==143)

    {

        printf("%d \n",i+1);

        CPOS=i;

    }

}
```

```
printf("Individual distance from moving current position to disc Size(4999) \n");
```

```
for(i=CPOS;i<12-1;++i)
```

```
{      ID=array[i+1]-array[i];
```

```
        printf("%d \n",ID);
```

```
        Sum1=Sum1+ID;
```

```
}
```

```
printf(" Distance from current position to 4999 : %d \n",Sum1);
```

```
printf("Individual distance from moving 0 to Current size\n");
```

```
for(i=0;i<CPOS-1;i++)
```

```
{
```

```
    ID1=array[i+1]-array[i];
```

```
    printf("%d \n",ID1);
```

```
Sum2=Sum2+ID1;
```

```
}
```

```
printf(" Distance from 0 to current position : %d \n",Sum2);
```

```
TD=Sum1+Sum2;
```

```
printf("Distance when we don't include the distance from 4999 to 0");
```

```
printf("%d \n",TD);
```

```
printf("Distance when we include the distance from 4999 to 0");
```

```
}
```