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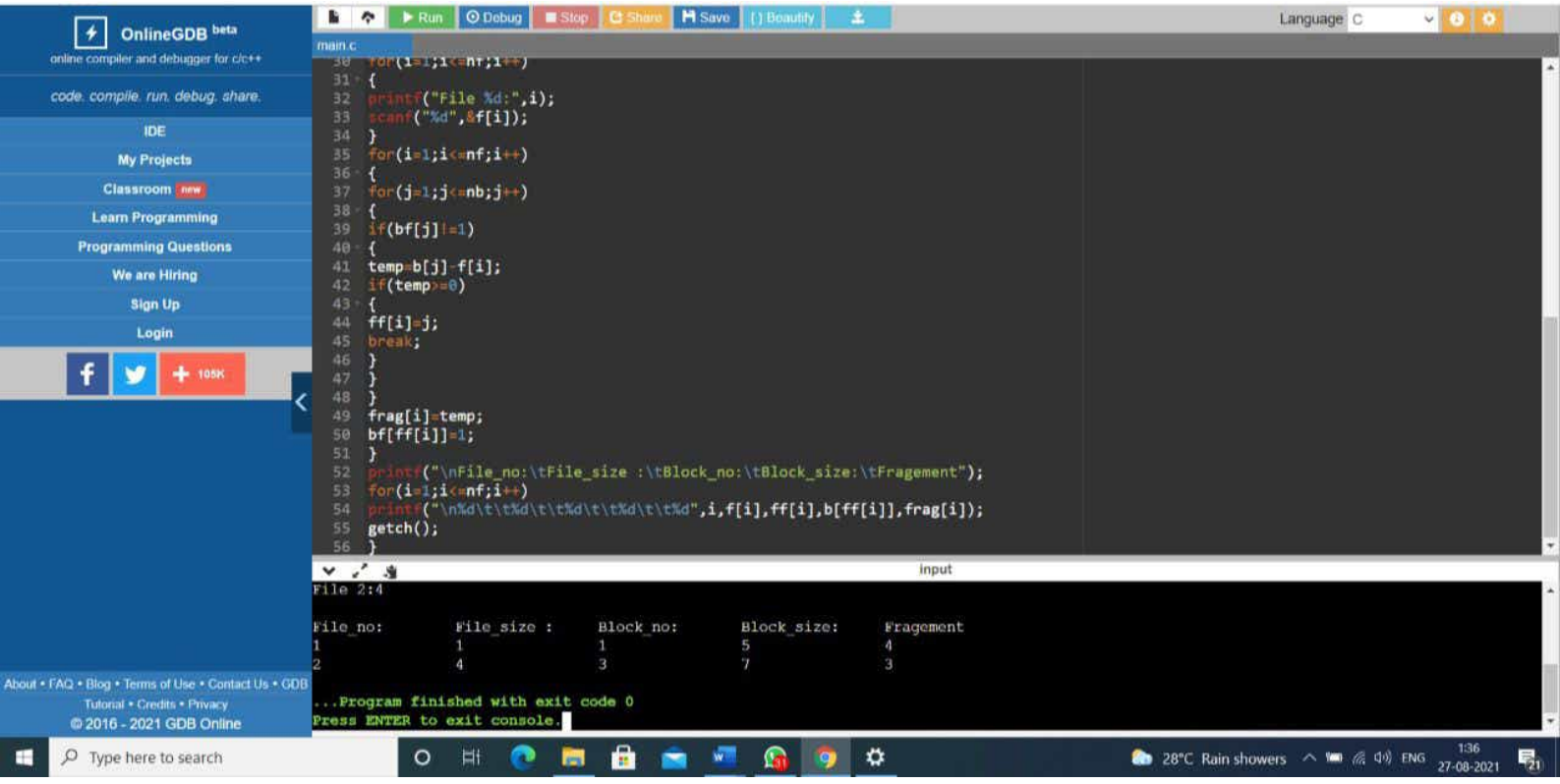
Q1 Answer

```
#include<stdio.h>
#include<conio.h>
# define max 25
Void main()
{
int
frag[max], b[max], f[max], i, j, nb, nf, te
mp;
static int bf[max], ff[max];
Printf("\n\t Memory management
Scheme - worst fit");
Printf("In Enter the number of blocks:");
blocks:");
Scanf("%d", &nf);
Printf("\nEnter the size of the
blocks :-\n");
for(i=1;i<=nb;i++)
{
Printf("Block %d:", i);
Scanf("%d", &b[i]);
}
```

```
printf("Enter the size of the files:
\n");
for(i=1;i<=nf;i++)
{
printf("file %d:",i);
scanf("%d",&f[i]);
}
for(i=1;i<=nf;i++)
{
for(j=1;j<=nb;j++)
{
if(bf[j]!=1)
{
temp=b[j]-f[i];
if(temp>=0)
{
ff[i]=j;
break;
}
}
}
```

```
frag[i] = temp
bf[ff[i]] = 1;
}
printf("\n file_no:\t file_size
\t Block_no:\t Block_size:
\t fragement");
for(i=1;i<=nf;i++)
printf("\n%d\t\t%d\t\t%d\t\t%d\t\t%
d", i, f[i], ff[i], b[ff[i]], frag[i]);
getch();
}
```

Ansila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Language C
main.c
for(i=1;i<=nf;i++)
{
printf("File %d:",i);
scanf("%d",&f[i]);
}
for(i=1;i<=nf;i++)
{
for(j=1;j<=nb;j++)
{
if(bf[j]!=1)
{
temp=b[j]-f[i];
if(temp>=0)
{
ff[i]=j;
break;
}
}
}
frag[i]=temp;
bf[ff[i]]=1;
}
printf("\nFile_no:\tFile_size :\tBlock_no:\tBlock_size:\tFragement");
for(i=1;i<=nf;i++)
printf("\n%d\t\t%d\t\t%d\t\t%d\t\t%d",i,f[i],ff[i],b[ff[i]],frag[i]);
getch();
}
input
File 2:4
File_no: File_size : Block_no: Block_size: Fragement
1 1 1 5 4
2 4 3 7 3
...Program finished with exit code 0
Press ENTER to exit console.
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Q2 Answer

```
#include <stdio.h>
int absolute value(int);
void main()
{
 int queue[25], n, headposition, i, j, k, seek=0, Maxrange,
 difference, temp, queue1[20], queue2[20], temp1=0, temp2=0
 float averageseek time;
 Printf("Enter the maximum range of Disk: ");
 Scanf("%d", &Maxrange);
 Printf("Enter the number of queue requests:");
 Scanf("%d', &n);
 Printf("Enter the number of queue requests: ");
  Scanf("%d", &n);
 Printf "(Enter the intial head position:");
 Scanf("%d", &headposition);
 Printf("Enter the disk positions to be read(queue): ");
 for(i=1; i<=n; i++)
 {

      Scanf("%d", &temp);
       if (temp > headposition)

       {

            queue1[temp1] = temp;
            temp1++;
```

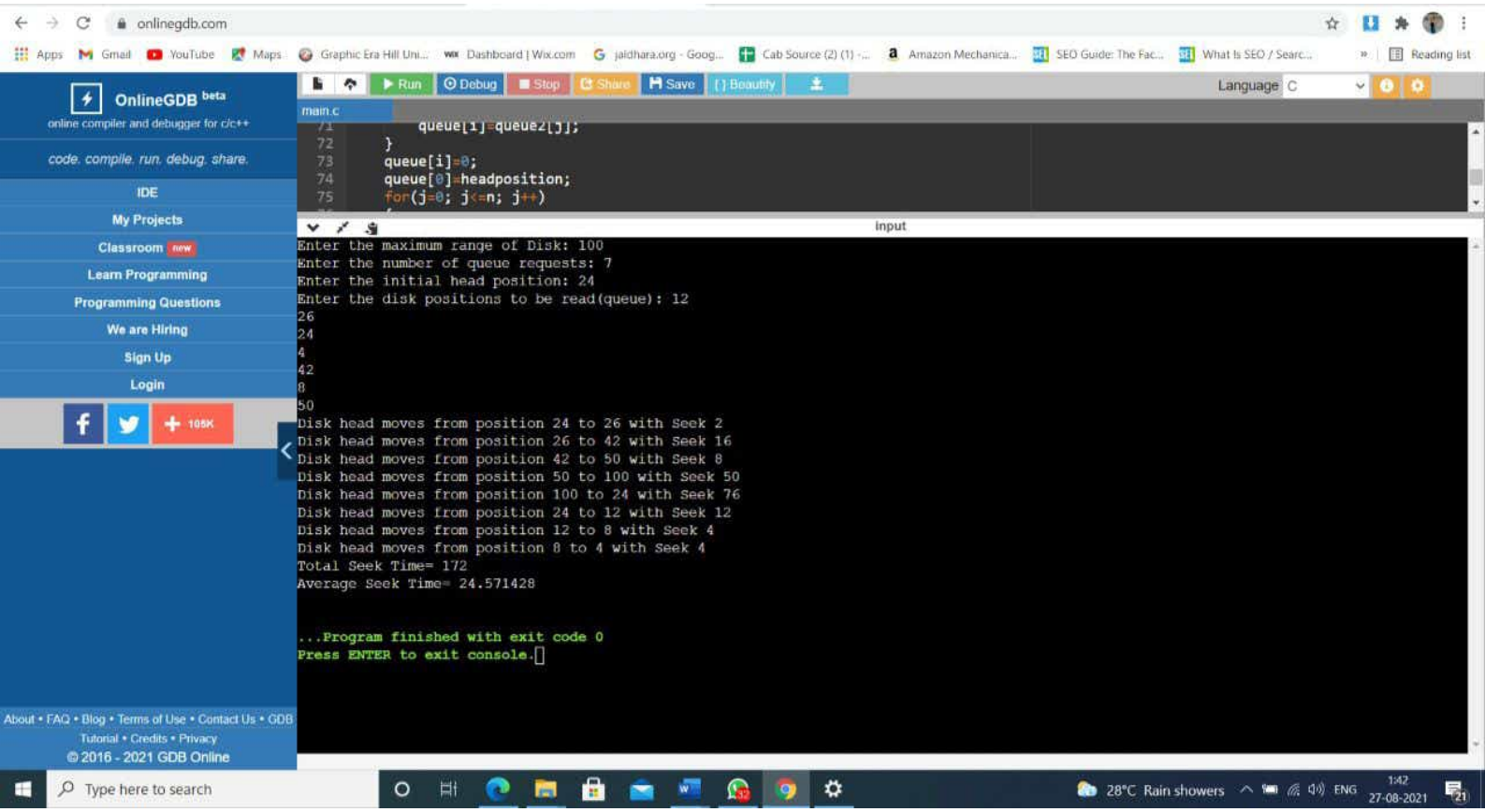
```
}
else
{
    queue2[temp2] = temp
    temp2++;
}
}
for (i=0; i<temp1-1; i++)
{
    for (j=i+1; j<temp1; j++)
    {
        if (queue1[i]>queue1[j])
        {
            temp = queue1[i];
            queue1[i] = queue1[j];
            queue1[j] = temp;
}
}
}
```

```
for (i = 0; i < temp2 - 1; ++)
{
    for(j = i+1; j < temp2; j++)
     if (queue2 [i] < queue2 [j])
         temp = queue2 [i];
         queue 2 [i] = queue 2 [j];
         queue 2 [j] = temp;
}
}
}
for (i=1, j=0; j < temp1; i++, j++)
{   queue [i] = queue1 [j];
    }
   queue [i] = maxrange;
   for (i = temp1+2, j=0; j < temp2; i++, j++)
{   queue [i] = queue2 [j];
}
queue [i] = 0;
```

```
queue [0] = headposition
for (j=0; j<=n; j++)
{
    difference =
absolute Value (queue [j+1] queue [j]);
    Peek = Peek + difference;
    printf ("Disk head moves from
    position %d to %d with Peek %d
    \n",
        queue[j], queue[j+1], difference);
}
averagePeekTime = Peek / (float)n;
printf ("Total Peek Time = %d\n", Peek);
printf ("Average Peek Time = %.f\n",
averagePeekTime);
}
int absoluteValue (int x)
{ if (x>0)
{
```

```
else
{
    return x*-1;
}
}
```

Answer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{ } Beautify
Language C
main.c
queue[i]=queue2[j];
}
queue[i]=0;
queue[0]=headposition;
for(j=0; j<=n; j++)
input
Enter the maximum range of Disk: 100
Enter the number of queue requests: 7
Enter the initial head position: 24
Enter the disk positions to be read(queue): 12
26
24
4
42
8
50
Disk head moves from position 24 to 26 with Seek 2
Disk head moves from position 26 to 42 with Seek 16
Disk head moves from position 42 to 50 with Seek 8
Disk head moves from position 50 to 100 with Seek 50
Disk head moves from position 100 to 24 with Seek 76
Disk head moves from position 24 to 12 with Seek 12
Disk head moves from position 12 to 8 with Seek 4
Disk head moves from position 8 to 4 with Seek 4
Total Seek Time= 172
Average Seek Time= 24.571428
...Program finished with exit code 0
Press ENTER to exit console.
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