```
Logs & others
Start here X merge sort.c X MEDIAN OF TWO SORTED ARRAY AFTER MERGING.c X
           #include<stdio.h>
     2
           #include<time.h>
     3
           #include<stdlib.h>
      4
     5
          void median(int arr[],int size)
      6
         \Box(
     7
               float n=(arr[size/2]+arr[(size-1)/2])/2.0;
     8
               printf("\nThe median of the array is: %f",n);
     9
    10
     11
          void sort(int arr[],int size)
    12
         \Box{
    13
               int temp, i, j;
     14
               for(i=0;i<size;i++)
    15
                   for(j=i;j<size;j++)</pre>
     16
     17
    18
                       if(arr[j]<arr[i])
     19
     20
                           temp=arr[i];
     21
                           arr[i]=arr[j];
     22
                           arr[j]=temp;
     23
     24
                   }
     25
              }
     26
     27
     28
          void printArray(int arr[], int size)
     29
         for(int i=0;i<size;i++)</pre>
     30
     31
     32
                   printf("%d\n", arr[i]);
     33
     34
     35
     36
           int main()
     37
         \Box(
     38
               int n, i, j;
               printf("Enter size of both arrays: ");
     39
     40
               scanf ("%d", &n);
     41
               int a[n],b[n],c[2*n];
 <
```

```
scanf("%d", &n);
40
           int a[n],b[n],c[2*n];
41
           for (i=0; i<n; i++)
42
43
               a[i]=rand() %100;
44
45
           for (i=0; i<n; i++)
46
47
               b[i]=rand()%100;
48
49
          printf("\nElements of first array-\n");
50
           printArray(a,n);
51
52
           printf("\nElements of second array-\n");
53
54
           printArray(b, n);
55
           sort (a, n);
56
57
           sort (b, n);
58
           printf("\nSorted first array-\n");
59
60
           printArray(a,n);
61
           printf("\nSorted second array-\n");
62
63
           printArray(b,n);
64
           clock t begin = clock();
65
66
67
           for (j=0; j<n; j++)
68
           1
69
               c[j]=a[j];
70
71
           for (int k=0; k<n; k++)
72
73
               c[j+k]=b[k];
74
75
           printf("\nMerged array is-\n");
76
           printArray(c, 2*n);
77
78
          median(c, 2*n);
79
80
           clock t end = clock();
```

```
Logs & others

✓ Code::Blocks X Search results X ✓ Cccc X Build log X ← Build messages X
Start here X merge sort.c X MEDIAN OF TWO SORTED ARRAY AFTER MERGING.c X
     48
                     b[i]=rand()%100;
     49
                printf("\nElements of first array-\n");
     50
     51
                printArray(a,n);
     52
                printf("\nElements of second array-\n");
     53
     54
                printArray(b,n);
     55
     56
                sort (a, n);
     57
                sort(b,n);
     58
                printf("\nSorted first array-\n");
     59
     60
                printArray(a,n);
     61
                printf("\nSorted second array-\n");
     62
                printArray(b,n);
     63
     64
                clock t begin = clock();
     65
     66
                for (j=0; j<n; j++)
     67
     68
                     c[j]=a[j];
     69
     70
                for (int k=0; k<n; k++)
     71
     72
                     c[j+k]=b[k];
     73
     74
                printf("\nMerged array is-\n");
     75
                printArray(c, 2*n);
     76
     77
                median(c,2*n);
     78
     79
                clock t end = clock();
     80
                double time spent = (double) (end - begin) / CLOCKS PER SEC;
     81
                printf("\nExecution Time : %f seconds\n", time_spent);
     82
     83
     84
                return 0;
     85
     86
     87
```

```
"C:\web developement(html.css.js)\MEDIAN OF TWO SORTED ARRAY AFTER MERGING.exe"
Elements of second array-
0
69
24
Sorted first array-
34
41
67
Sorted second array-
0
24
69
Merged array is-
34
41
67
0
24
69
The median of the array is: 33.500000
Execution Time : 0.000000 seconds
Process returned 0 (0x0)
                              execution time : 20.310 s
Press any key to continue.
```