

main.c

```
1  #include <stdio.h>
2  #include <stdlib.h>
3  #include <time.h>
4
5  int main()
6  {
7      int a[10], i, n=10, min, temp=0, c, l=0;
8      printf("<-----SELECTION SORT----->\n");
9      printf("Genrating random nos.: \n");
10     srand(time(0));
11
12     for (c = 0; c < n; c++)
13     {
14         a[c]=rand()%100 +1;
15         printf("%d\n", a[c]);
16     }
17     clock_t begin = clock();
18     for(i=0; i<n; i++)
19     {
20         min=i;
21         for(int j=i+1; j<=n; j++)
22         {
23             if(a[j]<a[min])
24                 min=j;
25         }
26         temp=a[i];
27         a[i]=a[min];
28         a[min]=temp;
29     }
```

```

10  srand(time(0));
11
12  for (c = 0; c < n; c++)
13  {
14      a[c]=rand()%100 +1;
15      printf("%d\n",a[c]);
16  }
17  clock_t begin = clock();
18  for(i=0;i<n;i++)
19  { min=i;
20      for(int j=i+1;j<=n;j++)
21      {
22          if(a[j]<a[min])
23              min=j;
24      }
25      temp=a[i];
26      a[i]=a[min];
27      a[min]=temp;
28  }
29  printf("Sorted Array:\n");
30  for(i = 0; i < n; i++)
31      printf("%d\n", a[i]);
32  clock_t end = clock();
33  double time_spent = (double)(end - begin) / CLOCKS_PER_SEC;
34  printf("\n\nEXECUTION TIME : %.10fseconds\n", time_spent);
35
36  return 0;
37  }

```



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```

10  srand(time(0));
11
12  for (c = 0; c < n; c++)
13  {
14      a[c]=rand()%100 +1;
15  }

```

<-----SELECTION SORT----->

Genrating random nos.:

51
72
16
30
20
100
42
99
15
34

Sorted Array:

0
15
16
20
30
34
42
51
72
99

EXECUTION TIME : 0.0000260000seconds

...Program finished with exit code 0

Press ENTER to exit console.