Design and implement C/C++ Program to sort a given set of n integer elements using Selection Sort method and compute its time complexity. Run the program for varied values of n> 5000 and record the time taken to sort. Plot a graph of the time taken versus n. The elements can be read from a file or can be generated using the random number generator.

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

// Function to perform selection sort
Void  selectionSort(int  arr[], int  n) {
   for (int  i = 0; i < n - 1; ++i) {
      int minIndex = i;
      for (int  j = i + 1; j < n; ++j) {
         if (arr[j] < arr[minIndex]) {
            minIndex = j;
         }
      }
      if (minIndex != i) {
         // Swap arr[i] and arr[minIndex]
         int  temp = arr[i];
         arr[i] = arr[minIndex];
         arr[minIndex] = temp;
      }
   }
}
```

```
int main() {
   int  n;
   printf("Enter the number of elements: ");
   scanf("%d", &n);

   // Generate n random numbers
   int  arr[n];
   srand(time(NULL));
   for (int  i = 0; i < n; ++i) {
      arr[i] = rand() % 10000; // Generate random numbers between 0 and 9999
   }

   // Measure the time taken for sorting
   clock_t  start = clock();
   selectionSort(arr, n);
   clock_t end = clock();

   double time_taken = ((double)(end - start)) / CLOCKS_PER_SEC;

   printf("Time taken for sorting: %f seconds\n", time_taken);

   return 0;
}
```