LAB TEST - 1

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Selection sort program :-

```
#include <stdio.h>
#include <time.h>
int Selection_sort(arr[], int n)
{
    int i, j, position, swap;
    for(i=0; i<n-1; i++)
    { position = i
      for(j=i+1; j<n; j++)
      { if(arr[position] < arr[j])
          position=j;
      }
      if (position != i)
      { swap = arr[position]
        arr[position] = arr[i]
        arr[i] = swap;
      }
    }
}
int main() {
    int arr[100], n, i, k, int k_large,
    clock_t start, end;
    printf("Enter the number of elements in the
            array\n");
    scanf("%d", &n);
    for(i=0; i<n; i++)
    { arr[i] = rand()%250;
      printf("%d ", arr[i]);
    }
```


Swetha

```
printf("Enter the value of k to find the
    kth largest element\n");
scanf("%d", &k);
start = clock();
selectionsort(arr, n);
//to find kth largest elem.
end = clock();
printf("Elements in sorted order are\n");
for(int i=0; i<n; i++)
    printf("%d ", arr[i]);
printf("Time taken is %lf", (double)(end-start)/clocks_per_sec);
//to find the kth largest elmt
klarge = k_largest(arr, n, k);
printf("The kth largest element is %d", k_large);
}

k_largest(arr[], n, k)
{ for(int i=0; i<n; i++)
    { if (k==i+1)
        return arr[i];
    }
}
```