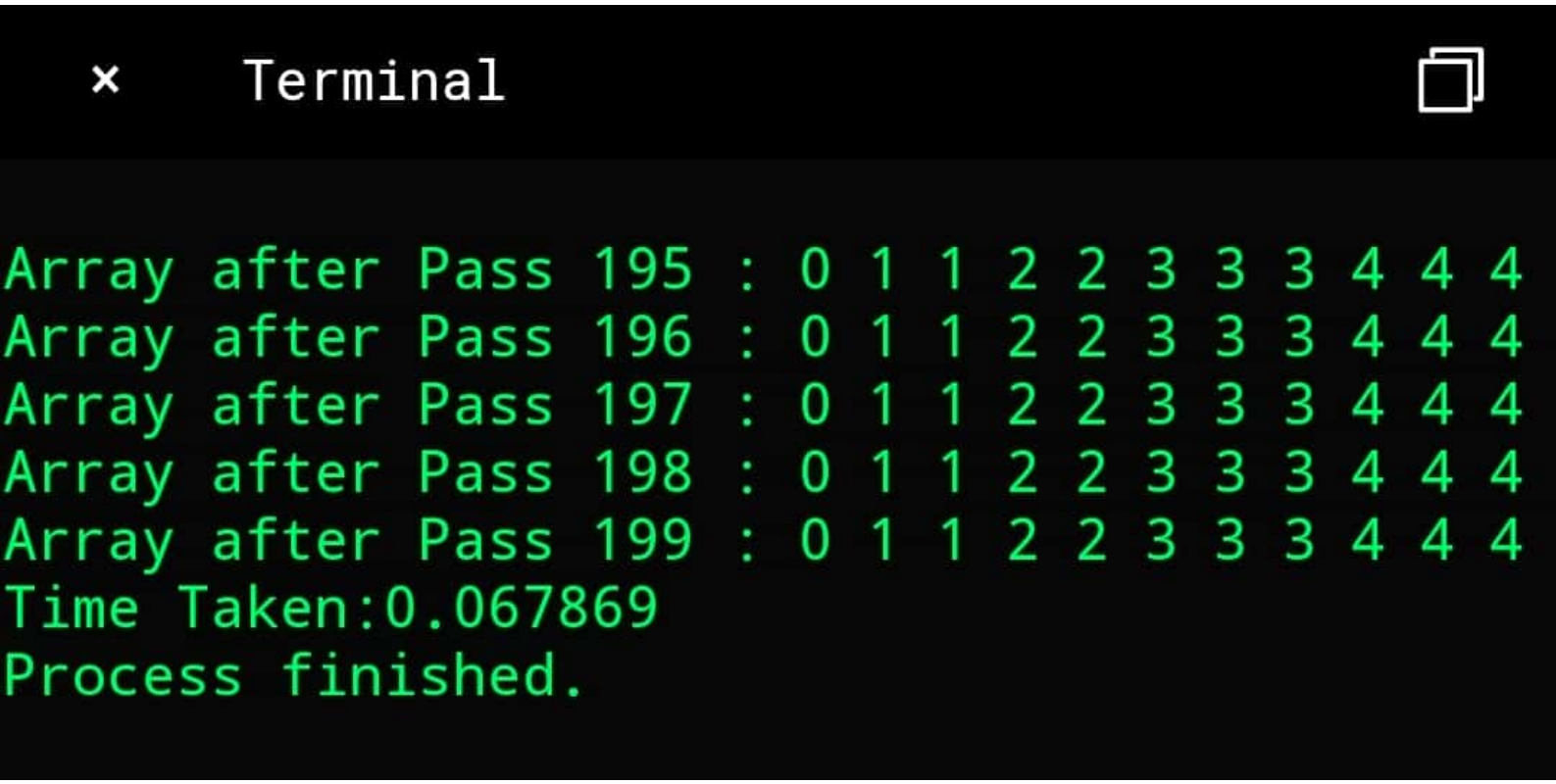
SelectionSort.c

Saved

```c
#include <stdio.h>
#include<time.h>
void selectionSort(int a[], int n)
{
    int i, j, small, pos;
    for (i = 0; i < n-1; i++)
    {
        small=a[i];
        pos = i;
        for (j = i+1; j < n; j++){
          if (a[j] < small){
              small=a[j];
              pos= j;
          }
        }
        int temp;
        temp=a[i];
        a[i]=a[pos];
        a[pos]=temp;
        printf("\nArray after Pass %d : ",i+1);
        printArray(a, n);
    }
}
void printArray(int a[], int n)
{
    int i;
    for (i=0; i < n; i++)
        printf("%d ", a[i]);
}
void main()
{
    int n, array[n];
    srand(time(0));
    printf("Enter number of elements in Array:");
    scanf("%d",&n);
    for(int c=0;c<n;c++)
        array[c]=rand()%100;
    printf("The Array List is,\n");
    for(int c=0;c<n;c++)
        printf("%d ",array[c]);
    clock_t start,end;
    start=clock();
        for (int c = 1; c <= 32767; c++) for (int d = 1; d <= 32767; d++) { }
    selectionSort(array, n);
    end=clock();
    printf("\nTime Taken:%lf",(double)(end-start)/CLOCKS_PER_SEC);

}
```



50	0.00622
100	0.0158
200	0.0621
500	0.391536
700	0.756192
1000	1.4995