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

void MaxMin(int a[],int l,int r,int * m,int * mi) {
    int max=*m;
    int min = *mi;
    if(l==r)
        max=min=a[l];
    else if(l==r-1) {
        if(a[l]>a[r]) {
            max=a[l];
            min=a[r];
        } else {
            min=a[l];
            max=a[r];
        }
    }
    else {
        int max1,min1;
        int mid = l + (r-l)/2;
        MaxMin(a,l,mid,&max,&min);
        MaxMin(a,mid+1,r,&max1,&min1);
        if(min1<min)
            min=min1;
        if(max1>max)
            max=max1;
    }
    *m=max;
    *mi=min;
}

int main() {
    clock_t start_t, end_t, total_t;
    printf("Enter Number of Input\n");
    int n,i;
    scanf("%d",&n);
    int a[n];
    for(i=0;i<n;i++) {
        a[i]= rand()%n+1;
    }
    for(i=0;i<n;i++) {
        printf(" %d ",a[i]);
    }
    printf("\n");
    int max;
    int min;
    start_t = clock();
    MaxMin(a,0,n-1,&max,&min);
    end_t = clock();
    printf("Max %d, Min %d \n",max,min);
    total_t = ((double)(end_t - start_t) / CLOCKS_PER_SEC)*CLOCKS_PER_SEC;
    printf("Total time taken by CPU: %f\n", (double)total_t/(double)CLOCKS_PER_SEC);
}

```