

## Experiment 8

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Roll No.: 54

Program:

```
#include <stdio.h>

void swap(int *xp, int *yp){
    int temp = *xp;
    *xp = *yp;
    *yp = temp;
}

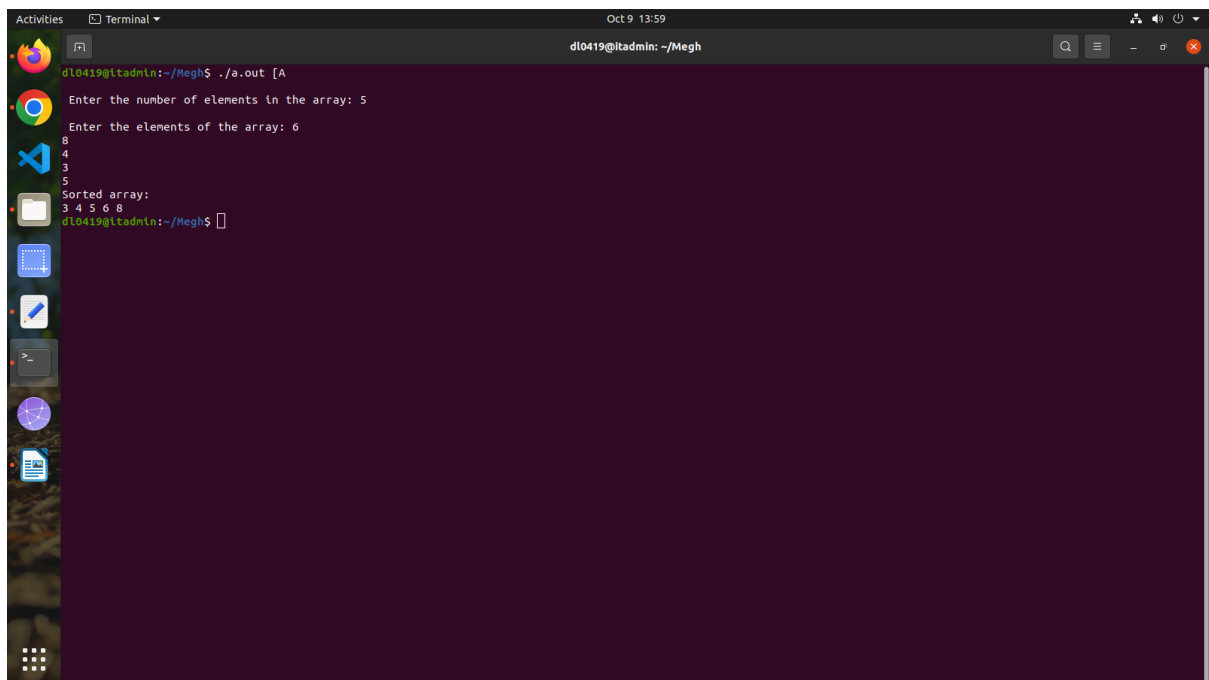
void selectionSort(int arr[], int n){
    int i, j, min_idx;
    for (i = 0; i < n-1; i++){
        min_idx = i;
        for (j = i+1; j < n; j++)
            if (arr[j] < arr[min_idx])
                min_idx = j;
        if(min_idx != i)
            swap(&arr[min_idx], &arr[i]);
    }
}

void printArray(int arr[], int size){
    int i;
    for (i=0; i < size; i++)
        printf("%d ", arr[i]);
    printf("\n");
}

int main(){
    int arr[10],i,n;
    printf("\nEnter the number of elements in the array: ");
    scanf("%d", &n);
    printf("\nEnter the elements of the array: ");
```

```
    for(i=0;i<n;i++){  
        scanf("%d", &arr[i]);  
    }  
    selectionSort(arr, n);  
    printf("Sorted array: \n");  
    printArray(arr, n);  
    return 0;  
}
```

Output:



```
Oct 9 13:59  
dl0419@ltadmin: ~/Megh  
dl0419@ltadmin:~/Megh$ ./a.out [A  
Enter the number of elements in the array: 5  
Enter the elements of the array: 6  
8  
4  
3  
5  
Sorted array:  
3 4 5 6 8  
dl0419@ltadmin:~/Megh$
```