

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

```
// Function to perform insertion sort
```

```
void insertionSort(int arr[], int n) {
```

```
    int i, key, j;
```

```
    for (i = 1; i < n; i++) {
```

```
        key = arr[i];
```

```
        j = i - 1;
```

```
        // Move elements of arr[0..i-1], that are greater than key,
```

```
        // to one position ahead of their current position
```

```
        while (j >= 0 && arr[j] > key) {
```

```
            arr[j + 1] = arr[j];
```

```
            j = j - 1;
```

```
        }
```

```
        arr[j + 1] = key;
```

```
    }
```

```
}
```

```
// Function to print the array
```

```
void printArray(int arr[], int n) {
```

```
    for (int i = 0; i < n; i++)
```

```
        printf("%d ", arr[i]);
```

```
    printf("\n");
```

```
}
```

```
// Main function
```

```
int main() {
```

```
    int n;
```

```
    printf("Enter number of elements: ");
```

```
    scanf("%d", &n);
```

```
int arr[n];

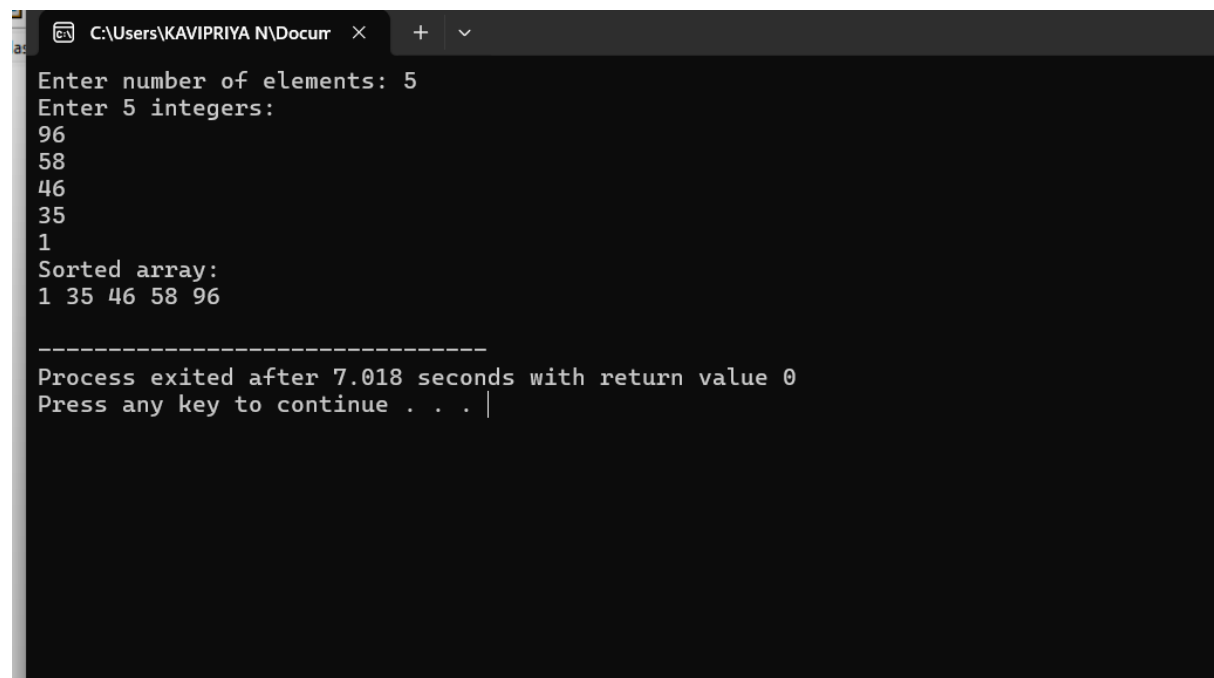
printf("Enter %d integers:\n", n);

for (int i = 0; i < n; i++)
    scanf("%d", &arr[i]);

insertionSort(arr, n);

printf("Sorted array:\n");
printArray(arr, n);

return 0;
}
```



```
C:\Users\KAVIPRIYA N\Docum
Enter number of elements: 5
Enter 5 integers:
96
58
46
35
1
Sorted array:
1 35 46 58 96

-----
Process exited after 7.018 seconds with return value 0
Press any key to continue . . . |
```