

```
* include <stdio.h>
```

```
// Function to print an array
```

```
void printArray (int array[], int size) {
```

```
    for (int i = 0; i < size; i++) {
```

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

```
    }
```

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

```
}
```

```
void insertion sort (int array[], int size)
```

```
{
```

```
    for (int step = 1; step < size; step++)
```

```
{
```

```
    int key = array[step];
```

```
    int j = step - 1;
```

// compare key with each element
on the left of it until an element
smaller than

// it is found.

// for descending order, change $key <$
 $array[j]$ to $key > array[j]$.

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

```
    array[j+1] = array[j]; --j;
```

```
}
```

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

```
}
```

```
}
```

// Driver code

```
int main () {
```

```
    int data = { 9, 5, 1, 4, 3 };
```

```
    int size = sizeof (data) /
```



```
sizeof (data [0]);  
insertion sort (data, size);  
printf("sorted array in ascending  
order : \n");  
Print array (data, size);  
}
```