```c
1: #include<stdio.h>
2:
3: void printArray(int* A, int n){
4:     for (int i = 0; i < n; i++)
5:     {
6:         printf("%d ", A[i]);
7:     }
8:     printf("\n");
9: }
10:
11: void insertionSort(int *A, int n){
12:     int key, j;
13:     // Loop for passes
14:     for (int i = 1; i <= n-1; i++)
15:     {
16:         key = A[i];
17:         j = i-1;
18:         // Loop for each pass
19:         while(j>=0 && A[j] > key){
20:             A[j+1] = A[j];
21:             j--;
22:         }
23:         A[j+1] = key;
24:     }
25: }
26:
27: int main(){
28:     // -1   0    1    2    3    4    5
29:     //      12,| 54, 65, 07, 23, 09 --> i=1, key=54, j=0
30:     //      12,| 54, 65, 07, 23, 09 --> 1st pass done (i=1)!
31:
32:     //      12, 54,| 65, 07, 23, 09 --> i=2, key=65, j=1
33:     //      12, 54,| 65, 07, 23, 09 --> 2nd pass done (i=2)!
34:
35:     //      12, 54, 65,| 07, 23, 09 --> i=3, key=7, j=2
36:     //      12, 54, 65,| 65, 23, 09 --> i=3, key=7, j=1
37:     //      12, 54, 54,| 65, 23, 09 --> i=3, key=7, j=0
38:     //      12, 12, 54,| 65, 23, 09 --> i=3, key=7, j=-1
39:     //      07, 12, 54,| 65, 23, 09 --> i=3, key=7, j=-1--> 3rd
```

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40:
41:     // Fast forwarding and 4th and 5th pass will give:
42:     //      07, 12, 54, 65,| 23, 09 --> i=4, key=23, j=3
43:     //      07, 12, 23, 54,| 65, 09 --> After the 4th pass
44:
45:     //      07, 12, 23, 54, 65,| 09 --> i=5, key=09, j=4
46:     //      07, 09, 12, 23, 54, 65| --> After the 5th pass
47:
48:     int A[] = {12, 54, 65, 7, 23, 9};
49:     int n = 6;
50:     printArray(A, n);
51:     insertionSort(A, n);
52:     printArray(A, n);
53:     return 0;
54: }
55:
```