Assignment No.5 Data Structures and Algorithms

**Question 1:**

1. **Write the function for insertion sort.**

**Answer:**

#include<stdio.h>

void printArray(int\* A, int n){

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

printf("%d ", A[i]);

}

printf("\n");

}

void insertionSort(int \*A, int n){

int key, j;

// Loop for passes

for (int i = 1; i <= n-1; i++) {

key = A[i];

j = i-1;

// Loop for each pass

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

A[j+1] = A[j];

j--;

}

A[j+1] = key;

}

}

int main(){

int A[] = {12, 54, 65, 7, 23, 9};

int n = 6;

printArray(A, n);

insertionSort(A, n);

printArray(A, n);

return 0;

}