Experiment No. 1

To implement Insertion Sort and Comparative analysis for large values of ‘n’

```
#include <math.h>
#include <stdio.h>
void insertionSort(int arr[], int n)
{
	int i, key, j;
	for (i = 1; i < n; i++) {
		key = arr[i];
		j = i - 1;
		while (j >= 0 && arr[j] > key) {
			arr[j + 1] = arr[j];
			j = j - 1;
		}
		arr[j + 1] = key;
	}
}
{
	int i;
	for (i = 0; i < n; i++)
		printf("%d ", arr[i]);
	printf("\n");
}
int main()
```

```
{
        int arr[] = { 12, 11, 13, 5, 6 };
        int n = sizeof(arr) / sizeof(arr[0]);
        insertionSort(arr, n);
        printArray(arr, n);
        return 0;
}
```

Output:-

5,6,11,12,13