Experiment 1

```
#include<stdio.h>

void Insertion_Sort(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 main(){
	int n;
	printf("Enter the number of array: ");
	scanf("%d",&n);
	int arr[n];
	printf("Enter the elements: ");
	for(int i=0;i<n;i++)
	{
		scanf("%d",&arr[i]);
	}
	Insertion_Sort(arr,n);
	for(int i=0;i<n;i++)
	{
		printf("%d  ",arr[i]);
	}
	return 0;
}
```

```
(base) computer@computer:~$ cd Desktop
(base) computer@computer:~/Desktop$ cd karan
(base) computer@computer:~/Desktop/karan$ gcc -o In_sort In_sort.c
(base) computer@computer:~/Desktop/karan$ ./In_sort
Enter the number of array: 5
Enter the elements: 2
5
1
7
8
12578(base) computer@computer:~/Desktop/karan$ gcc -o In_sort In_sort.c
(base) computer@computer:~/Desktop/karan$ ./In_sort
Enter the number of array: 5
Enter the elements: 4
8
1
3
5
(base) computer@computer:~/Desktop/karan$
```