Insertion Sort

Data Structures Made Easy

DUBLIN CITY UNIVERSITY

1. ***Insertion Sort***

```
class insertion_Sort{

	public static void insertion(int [] insert_Array, int size){

		for (int i = 1; i < size; i++){

			int index = i;
			int element = insert_Array[index];

			while ((index > 0) && (insert_Array[index-1] > element)){

				insert_Array[index] = insert_Array[index-1];
				index--;
			}

			insert_Array[index] = element;
		}
	}

	public static void main(String [] args){

		System.out.print("Enter the number of elements: ");
		int size = Console.readInt();

		int [] insert_Array = new int[size];

		System.out.print('\n' + "Enter the elements: ");

		for(int index_1 = 0; index_1 < size; index_1++){

			int element = Console.readInt();
			insert_Array[index_1] = element;
		}

		insertion(insert_Array, size);

		System.out.print('\n' + "The sorted list is: ");

		for(int index_2 = 0; index_2 < size; index_2++)
			System.out.print(insert_Array[index_2] + " ");
	}
}
```