Chapter 8:

Data Structures -1
Linear Lists (Basics) (A)

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Introduction

Lists is a collection of homogeneous and heterogeneous elements. A single list may contain Data Types like Integers, Strings, as well as Objects. Lists are mutable, and hence, they can be altered even after their creation.

List in Python are ordered and have a definite count. The elements in a list are indexed according to a definite sequence and the indexing of a list is done with 0 being the first index. Each element in the list has its definite place in the list, which allows duplicating of elements in the list, with each element having its own distinct place and credibility.

Note- Lists are a useful tool for preserving a sequence of data and further iterating over it.

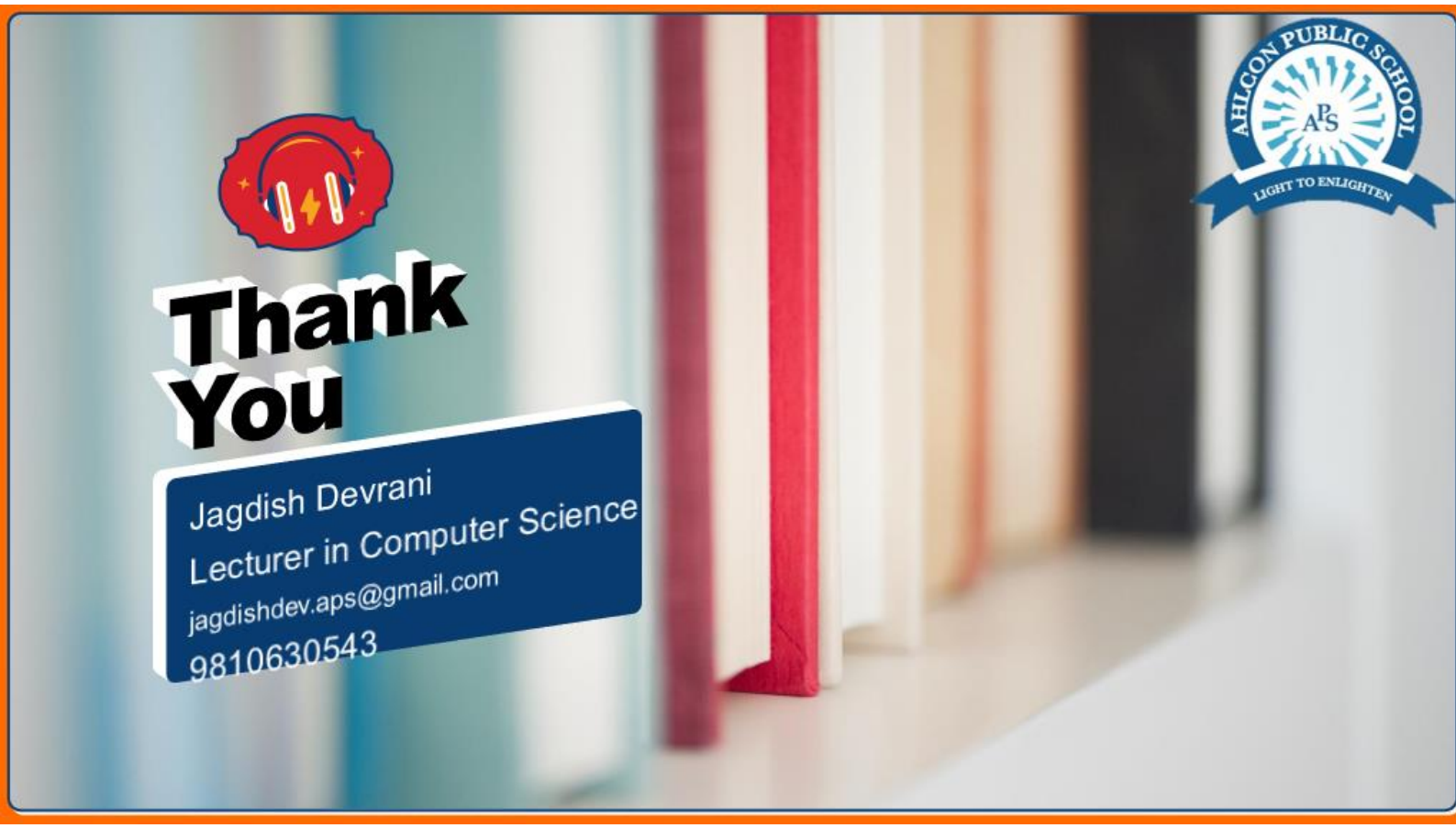
```
#Creating an empty list:

L=[]

print(L)

#Output
# []
```

```
# List of integers

L=[1,2,3,4,5]

print(L)
#Output
#[1, 2, 3, 4, 5]
```

```
# List of float elements

L=[11.1,12.1,13.1,14.1]

print(L)

#Output
#[11.1, 12.1, 13.1, 14.1]
```

```
# List of Hetrogeneous elements

L=[1,"Kartikey",99.9]

print(L)

#Output
#[1, 'Kartikey', 99.9]
```

```
#Nested List

#  0     1              2             3
L=[1,"Kartikey",[99,99.9,99,99,100],"MV1"] #Nested List
#                 0   1  2  3  4
#  -4    -3           -2            -1

print(L)

#Output
#[1, 'Kartikey', [99, 99.9, 99, 99, 100], 'MV1']
```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