ListBox In Tkinter| Python Tkinter GUI Tutorial In Hindi #21

The **Listbox()** widget is a standard Tkinter widget that displays a list of items from which a user can select a number of items. The Listbox can only contain text items, and all items must have the same font and color. Depending on the widget configuration, the user can choose one or more alternatives from the list.
Listboxes are used to select from a group of textual items. Depending on how the Listbox is configured, the user can select one or many items from that list.

Attributes:

- bg: It is used to set the background color of the widget.
- fg: It is used to set the color of the text.
- bd: It represents the size of the border. The default value is 2 pixels.
- font: It sets the font type of the Listbox items (the font type of all Listbox items will be the same).

Methods:

- activate(index): It is used to select the lines at the specified index.
- delete(first, last = None): It is used to delete the lines which exist in the given range.
- insert(index, *elements): It is used to insert the new lines with the specified number of elements before the specified index.
- get(first, last = None): It is used to get the list of items that exist in the given range.

- index(i): It is used to place the line with the specified index at the top of the widget.

Code is described below:

```
from tkinter import *

def add():
    global i
    lbx.insert(ACTIVE, f"{i}")
    i+=1

i = 0
root = Tk()
root.geometry("455x233")
root.title("Listbox tutorial")

lbx = Listbox(root)
lbx.pack()
lbx.insert(END, "First item of our listbox")

Button(root, text="Add Item", command=add).pack()




root.mainloop()
```

- Importing *tkinter* is the same as importing any other module in the Python code. Note that the module's name in Python 2.x is '*Tkinter*' and in Python 3.x it is '*tkinter*'.

```
from tkinter import *
```

- To define a function 'def' (i.e. here the function add() is defined) is used. The insert() method is used within this function to insert the new

lines with the specified number of elements before the specified index. Here the index is i, and it will be incremented. Here a special index **ACTIVE** is used, which refers to the "active" item (set when you click on an item, or by the arrow keys) and start to insert further items before that index only.

```
def add():
    global i
    lbx.insert(ACTIVE, f"{i}")
    i+=1
```

- i is initialized to 0. So the list will start adding items from 0.

```
i = 0
```

- To create the main window, Tkinter offers a method, 'Tk'. To change the name of the window, you can change the className to the desired one.

```
root = Tk()
```

- To set the dimensions of the Tkinter window and to set the position of the main window on the user's desktop, the geometry() function is used. As in the example: the width is 455 pixels and height is 233 pixels, so we can write the function as *geometry(455x233).*

```
root.geometry("455x233")
```

- For setting the title of the GUI window, the title() function is used. Here the title is "Listbox tutorial".

```
root.title("Listbox tutorial")
```

- A Listbox "lbx" is taken as a variable, and the list variable is packed using the pack() method. Then an item is inserted into the Listbox ("First item of our Listbox") using the insert() method, and a special index **END** is used to append items to the list.

```
lbx = Listbox(root)
lbx.pack()
```

```
lbx.insert(END, "First item of our listbox")
```

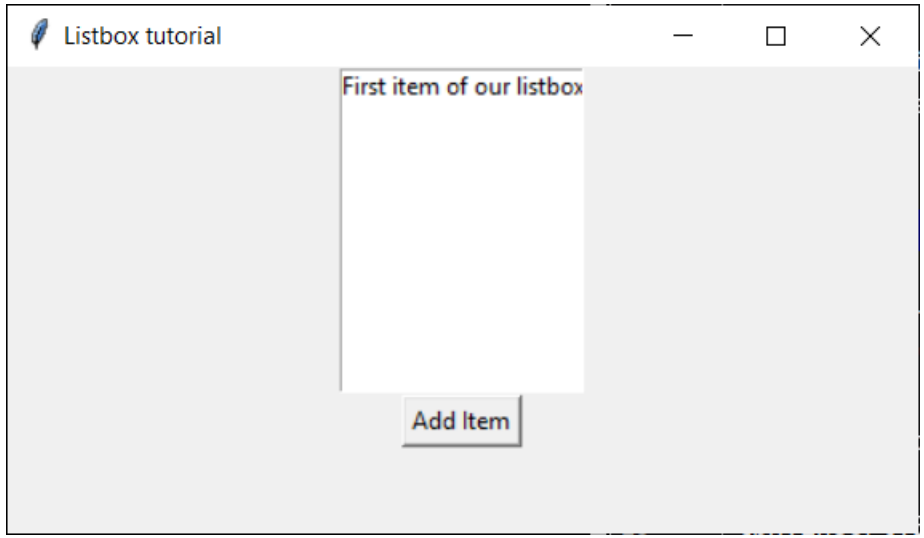
- We extend our little script by the button “Add Item”. We bind the function to add() to the “Add Item” button. So, every time this button is clicked, it will call the add() function and add the list item in the Listbox(). The button is packed using the pack() method.

```
Button(root, text="Add Item", command=add).pack()
```

- There is a method known by the name *mainloop(),* which is used when your application is ready to run. This is an infinite loop used to run the application, wait for an event to occur, and process the event as long as the window is not closed.

```
root.mainloop()
```

Output: The output of the code (or the GUI window) is given below:



Code as described/written in the video

Copy

```
from tkinter import *

def add():
```

```
    global i
    lbx.insert(ACTIVE, f"{i}")
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i = 0
root = Tk()
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root.mainloop()
```

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